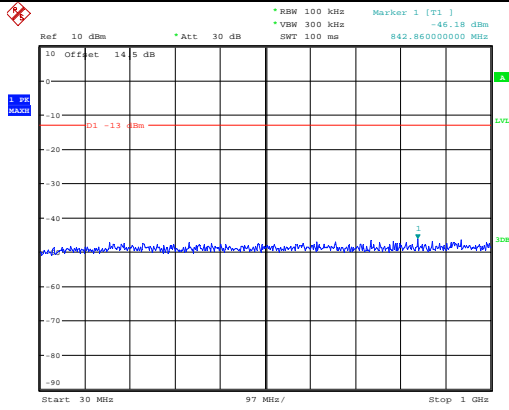


### Spurious Emissions at Antenna Terminal

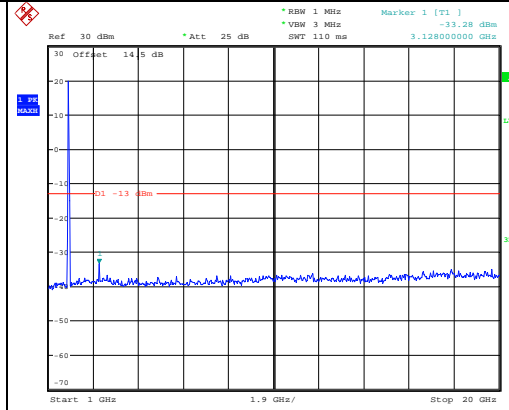
Channel

20MHz Bandwidth QPSK

Lowest

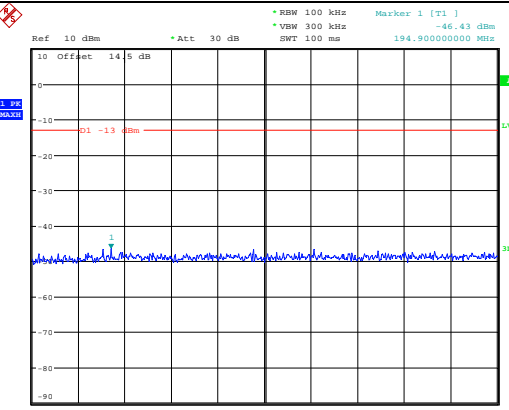


Date: 19.AUG.2023 11:17:26

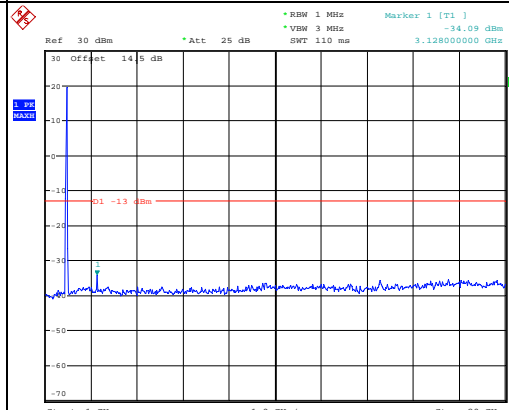


Date: 19.AUG.2023 11:17:37

Middle

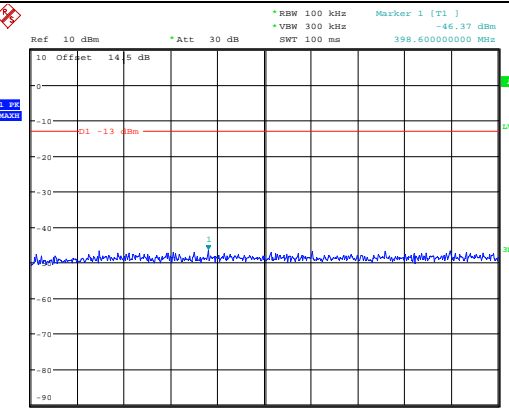


Date: 19.AUG.2023 11:17:51

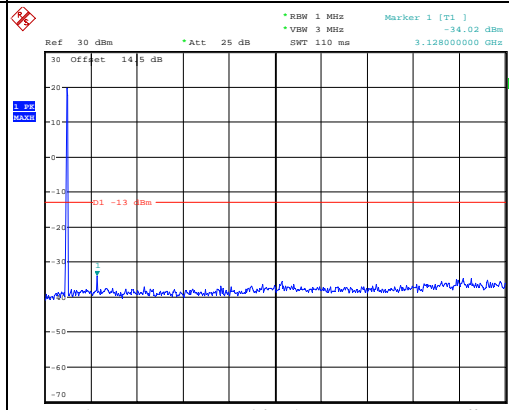


Date: 19.AUG.2023 11:18:02

Highest



Date: 19.AUG.2023 11:18:19



Date: 19.AUG.2023 11:18:30

Out of band emission, Band Edge

Mode	Lowest	Highest
<p>QPSK 1.4MHz</p>		
<p>QPSK 3MHz</p>		

Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 5MHz	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Marker 1 [T1]    -23.45 dBm            VSW 300 kHz    SWT 35 ms    1.85000000 GHz</p> <p>Center: 1.85 GHz    1 MHz/    Span 10 MHz</p> <p>Date: 19.AUG.2023 00:28:55</p>	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Marker 1 [T1]    -24.46 dBm            VSW 300 kHz    SWT 35 ms    1.91500000 GHz</p> <p>Center: 1.915 GHz    1 MHz/    Span 10 MHz</p> <p>Date: 19.AUG.2023 00:29:11</p>
QPSK 10MHz	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Marker 1 [T1]    -29.57 dBm            VSW 300 kHz    SWT 35 ms    1.85000000 GHz</p> <p>Center: 1.85 GHz    2 MHz/    Span 20 MHz</p> <p>Date: 19.AUG.2023 00:29:54</p>	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Marker 1 [T1]    -31.14 dBm            VSW 300 kHz    SWT 35 ms    1.91500000 GHz</p> <p>Center: 1.915 GHz    2 MHz/    Span 20 MHz</p> <p>Date: 19.AUG.2023 00:30:11</p>

Out of band emission, Band Edge

Mode	Lowest	Highest
<p>QPSK 15MHz</p>		
<p>QPSK 20MHz</p>		

Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 1.4MHz		
16QAM 3MHz		

Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 5MHz	<p>Ref 30 dBm    *Act 25 dB    *RBW 100 kHz    Marker 1 [T1] -24.86 dBm  *VBW 300 kHz    *SWT 35 ms    1.85000000 GHz</p> <p>Center 1.85 GHz    1 MHz/    Span 10 MHz</p> <p>Date: 19.AUG.2023 00:29:02</p>	<p>Ref 30 dBm    *Act 25 dB    *RBW 100 kHz    Marker 1 [T1] -25.32 dBm  *VBW 300 kHz    *SWT 35 ms    1.91500000 GHz</p> <p>Center 1.915 GHz    1 MHz/    Span 10 MHz</p> <p>Date: 19.AUG.2023 00:29:19</p>
16QAM 10MHz	<p>Ref 30 dBm    *Act 25 dB    *RBW 100 kHz    Marker 1 [T1] -30.58 dBm  *VBW 300 kHz    *SWT 35 ms    1.85000000 GHz</p> <p>Center 1.85 GHz    2 MHz/    Span 20 MHz</p> <p>Date: 19.AUG.2023 00:30:02</p>	<p>Ref 30 dBm    *Act 25 dB    *RBW 100 kHz    Marker 1 [T1] -33.78 dBm  *VBW 300 kHz    *SWT 35 ms    1.91500000 GHz</p> <p>Center 1.915 GHz    2 MHz/    Span 20 MHz</p> <p>Date: 19.AUG.2023 00:30:20</p>

Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 15MHz	<p>Ref 30 dBm    Att 25 dB    RBW 300 kHz    Marker 1 [T1] -27.76 dBm            VBW 1 MHz    SWT 35 ms    Center 1.85000000 GHz</p> <p>Date: 19.AUG.2023 00:31:16</p>	<p>Ref 30 dBm    Att 25 dB    RBW 300 kHz    Marker 1 [T1] -30.47 dBm            VBW 1 MHz    SWT 35 ms    Center 1.91500000 GHz</p> <p>Date: 19.AUG.2023 00:31:31</p>
16QAM 20MHz	<p>Ref 30 dBm    Att 25 dB    RBW 300 kHz    Marker 1 [T1] -31.84 dBm            VBW 1 MHz    SWT 35 ms    Center 1.85000000 GHz</p> <p>Date: 19.AUG.2023 00:32:28</p>	<p>Ref 30 dBm    Att 25 dB    RBW 300 kHz    Marker 1 [T1] -34.24 dBm            VBW 1 MHz    SWT 35 ms    Center 1.91500000 GHz</p> <p>Date: 19.AUG.2023 00:32:43</p>

**4.12 Antenna Port Test Data and Results for LTE Band 26**

Serial Number:	29K3-1	Test Date:	2023/8/17-2023/8/21
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	25.2-25.9	Relative Humidity: (%)	56-61	ATM Pressure: (kPa)	99.7-100
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
Weinschel	Power Splitter	1515	RA914	Each time	N/A
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A

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

**Test Frequency for Each Mode:**

Operation Bandwidth	Lowest Frequency For 90S (MHz)	Highest Frequency For 90S (MHz)	Channel Cross 90S and 22H	Lowest Frequency For 22H (MHz)	Middle Frequency For 22H (MHz)	Highest Frequency For 22H (MHz)
1.4MHz	814.7	823.3	824	824.7	831.5	848.3
3MHz	815.5	822.5	824	825.5	831.5	847.5
5MHz	816.5	821.5	824	826.5	831.5	846.5
10MHz	819	/	824	829	831.5	844
15MHz	821.5	/	824	831.5	836.5	841.5

Note: 15MHz bandwidth 821.5MHz cross Rules 90S and 22H.



**4.12.1 Test Data for Part 90S:****FCC§2.1046; § 90.635****RF Output Power:**

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel For 90S	Highest Channel For 90S	Cross Channel		
1.4MHz QPSK	RB1#0	25.76	25.22	25.45	21.37	50
	RB1#3	25.97	25.86	25.69		
	RB1#5	25.67	25.59	25.4		
	RB3#0	25.78	25.55	25.12		
	RB3#3	25.79	25.37	25.67		
	RB6#0	24.84	24.39	24.25		
1.4MHz 16QAM	RB1#0	24.88	24.5	24.36	20.5	50
	RB1#3	25.1	24.5	24.39		
	RB1#5	24.95	24.29	24.23		
	RB3#0	24.83	24.45	24.4		
	RB3#3	24.72	24.75	24.7		
	RB6#0	23.91	23.54	23.52		
3MHz QPSK	RB1#0	25.84	25.29	25.73	21.25	50
	RB1#8	25.85	25.35	25.61		
	RB1#14	25.83	25.57	25.67		
	RB6#0	24.84	24.65	24.37		
	RB6#9	24.83	24.46	24.68		
	RB15#0	24.84	24.65	24.38		
3MHz 16QAM	RB1#0	24.9	24.76	24.74	20.32	50
	RB1#8	24.92	24.58	24.46		
	RB1#14	24.85	24.4	24.43		
	RB6#0	23.78	23.53	23.62		
	RB6#9	23.82	23.32	23.48		
	RB15#0	23.89	23.4	23.59		
5MHz QPSK	RB1#0	25.7	25.43	25.56	21.33	50
	RB1#13	25.93	25.32	25.26		
	RB1#24	25.77	25.41	25.49		
	RB15#0	24.8	24.45	24.7		
	RB15#10	24.93	24.46	24.52		
	RB25#0	24.82	24.21	24.55		
5MHz 16QAM	RB1#0	24.79	24.58	24.76	20.39	50
	RB1#13	24.99	24.92	24.48		
	RB1#24	24.82	24.38	24.65		
	RB15#0	23.83	23.56	23.34		
	RB15#10	23.93	23.4	23.38		
	RB25#0	23.88	23.69	23.32		
10MHz QPSK	RB1#0	25.83	/	25.75	21.39	50

	RB1#25	25.99	/	25.72		
	RB1#49	25.82	/	25.21		
	RB25#0	24.81	/	24.35		
	RB25#25	24.85	/	24.56		
	RB50#0	24.82	/	24.25		
10MHz 16QAM	RB1#0	24.81	/	24.53	20.37	50
	RB1#25	24.97	/	24.72		
	RB1#49	24.83	/	24.7		
	RB25#0	23.91	/	23.84		
	RB25#25	23.97	/	23.37		
	RB50#0	23.85	/	23.56		
15MHz QPSK	RB1#0	25.75	/	25.59	21.23	50
	RB1#38	25.83	/	25.49		
	RB1#74	25.74	/	25.58		
	RB36#0	24.86	/	24.41		
	RB36#39	24.83	/	24.39		
	RB75#0	24.78	/	24.3		
15MHz 16QAM	RB1#0	25.21	/	24.52	20.61	50
	RB1#38	25.2	/	24.5		
	RB1#74	25.15	/	24.38		
	RB36#0	23.8	/	23.37		
	RB36#39	23.77	/	23.38		
	RB75#0	23.76	/	23.64		

Note:

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

Gr(dBd)=Gr(dBi)-2.15

**Result:****Pass****FCC §2.1049, §90.209: Occupied Bandwidth**

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Lowest For 90S	Highest For 90S	Cross	Lowest For 90S	Highest For 90S	Cross
1.4MHz QPSK	1.11	1.11	1.098	1.308	1.328	1.307
1.4MHz 16QAM	1.092	1.104	1.11	1.29	1.328	1.317
3MHz QPSK	2.687	2.688	2.688	2.88	2.9	2.88
3MHz 16QAM	2.687	2.688	2.688	2.88	2.891	2.912
5MHz QPSK	4.5	4.52	4.54	4.9	4.979	4.961
5MHz 16QAM	4.52	4.52	4.5	4.96	4.991	4.93
10MHz QPSK	8.96	/	8.96	9.6	/	9.66
10MHz 16QAM	8.96	/	8.96	9.6	/	9.631
15MHz QPSK	13.5	/	13.56	14.76	/	14.933
15MHz 16QAM	13.5	/	13.56	14.82	/	14.78

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

**FCC §2.1051, §90.691: Spurious Emissions at Antenna Terminal****Result:****Pass, please refer to the test plots of Spurious Emissions at Antenna Terminal.**

**FCC §2.1051, §90.691: Out of band emission, Band Edge****Result:** Pass, please refer to the test plots of Out of band emission, Band Edge.**FCC §2.1055, §90.213: Frequency Stability**

Test Modulation:	15 MHz QPSK		Test Channel:	821.5	MHz
Test Item	Temperature (°C)	Voltage (V <sub>DC</sub> )	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.8	19	0.023	2.5
	-20	3.8	40	0.048	2.5
	-10	3.8	26	0.031	2.5
	0	3.8	18	0.022	2.5
	10	3.8	1	0.001	2.5
	20	3.8	6	0.007	2.5
	30	3.8	18	0.022	2.5
	40	3.8	31	0.037	2.5
	50	3.8	33	0.040	2.5
Frequency Stability vs. Voltage	20	3.6	27	0.032	2.5
	20	4.35	39	0.047	2.5
<b>Result:</b>				<b>Pass</b>	

**FCC §2.1055, §90.213: Frequency Stability**

Test Modulation:	15 MHz 16QAM		Test Channel:	821.5	MHz
Test Item	Temperature (°C)	Voltage (V <sub>DC</sub> )	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.8	25	0.030	2.5
	-20	3.8	33	0.040	2.5
	-10	3.8	25	0.030	2.5
	0	3.8	22	0.026	2.5
	10	3.8	3	0.004	2.5
	20	3.8	19	0.023	2.5
	30	3.8	9	0.011	2.5
	40	3.8	38	0.046	2.5
	50	3.8	26	0.031	2.5
Frequency Stability vs. Voltage	20	3.6	3	0.004	2.5
	20	4.35	30	0.036	2.5
<b>Result:</b>				<b>Pass</b>	

**4.12.2 Test Plots for Part 90S:**

(Note: The 14.5dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):

**Occupied Bandwidth**

Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest For 90S	<p>Ref 30 dBm *Att. 25 dB *RBW 30 kHz Delta 1 [T1] -0.90 dB  *VBW 100 kHz SWT 15 ms 1.329000000 MHz  30 Offset 14.5 dB OSW 1.110000000 MHz  Marker 1 [T1] 814.046000000 MHz  Temp 1 [T1 OSW] -41.41 dBm  Temp 2 [T1 OSW] -44.44 dBm  Temp 3 [T1 OSW] -44.44 dBm  Temp 4 [T1 OSW] -39.44 dBm  Temp 5 [T1 OSW] -39.44 dBm  Center 814.7 MHz 300 kHz/ Span 3 MHz</p>	<p>Ref 30 dBm *Att. 25 dB *RBW 30 kHz Delta 1 [T1] 0.77 dB  *VBW 100 kHz SWT 15 ms 1.290000000 MHz  30 Offset 14.5 dB OSW 1.092000000 MHz  Marker 1 [T1] 814.052000000 MHz  Temp 1 [T1 OSW] -41.17 dBm  Temp 2 [T1 OSW] -44.44 dBm  Temp 3 [T1 OSW] -44.44 dBm  Temp 4 [T1 OSW] -39.44 dBm  Temp 5 [T1 OSW] -39.44 dBm  Center 814.7 MHz 300 kHz/ Span 3 MHz</p>
Highest For 90S	<p>Ref 30 dBm *Att. 25 dB *RBW 30 kHz Delta 1 [T1] -0.91 dB  *VBW 100 kHz SWT 15 ms 1.328384615 MHz  30 Offset 14.5 dB OSW 1.110000000 MHz  Marker 1 [T1] 822.634113822 MHz  Temp 1 [T1 OSW] -41.82 dBm  Temp 2 [T1 OSW] -44.44 dBm  Temp 3 [T1 OSW] -44.44 dBm  Temp 4 [T1 OSW] -39.44 dBm  Temp 5 [T1 OSW] -39.44 dBm  Center 823.3 MHz 300 kHz/ Span 3 MHz</p>	<p>Ref 30 dBm *Att. 25 dB *RBW 30 kHz Marker 1 [T1] -10.45 dBm  *VBW 100 kHz SWT 15 ms 1.328384615 MHz  30 Offset 14.5 dB OSW 1.104000000 MHz  Delta 1 [T1] 822.638923077 MHz  Temp 1 [T1 OSW] -41.44 dBm  Temp 2 [T1 OSW] -44.44 dBm  Temp 3 [T1 OSW] -44.44 dBm  Temp 4 [T1 OSW] -39.44 dBm  Temp 5 [T1 OSW] -39.44 dBm  Center 823.3 MHz 300 kHz/ Span 3 MHz</p>
Cross Channel	<p>Ref 30 dBm *Att. 25 dB *RBW 30 kHz Delta 1 [T1] 0.48 dB  *VBW 100 kHz SWT 15 ms 1.306884615 MHz  30 Offset 14.5 dB OSW 1.090000000 MHz  Marker 1 [T1] 823.342000000 MHz  Temp 1 [T1 OSW] -41.61 dBm  Temp 2 [T1 OSW] -44.44 dBm  Temp 3 [T1 OSW] -44.44 dBm  Temp 4 [T1 OSW] -39.44 dBm  Temp 5 [T1 OSW] -39.44 dBm  Center 824 MHz 300 kHz/ Span 3 MHz</p>	<p>Ref 30 dBm *Att. 25 dB *RBW 30 kHz Marker 1 [T1] -9.67 dBm  *VBW 100 kHz SWT 15 ms 1.316600000 MHz  30 Offset 14.5 dB OSW 1.110000000 MHz  Delta 1 [T1] 823.316600000 MHz  Temp 1 [T1 OSW] -41.75 dBm  Temp 2 [T1 OSW] -44.44 dBm  Temp 3 [T1 OSW] -44.44 dBm  Temp 4 [T1 OSW] -39.44 dBm  Temp 5 [T1 OSW] -39.44 dBm  Center 824 MHz 300 kHz/ Span 3 MHz</p>

Occupied Bandwidth

Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest For 90S		
Highest For 90S		
Cross Channel		

**Occupied Bandwidth**

Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest For 90S	<p>Date: 18.AUG.2023 21:54:23</p>	<p>Date: 18.AUG.2023 21:54:37</p>
Highest For 90S	<p>Date: 21.AUG.2023 11:14:45</p>	<p>Date: 21.AUG.2023 11:12:15</p>
Cross Channel	<p>Date: 21.AUG.2023 13:11:16</p>	<p>Date: 21.AUG.2023 13:21:17</p>

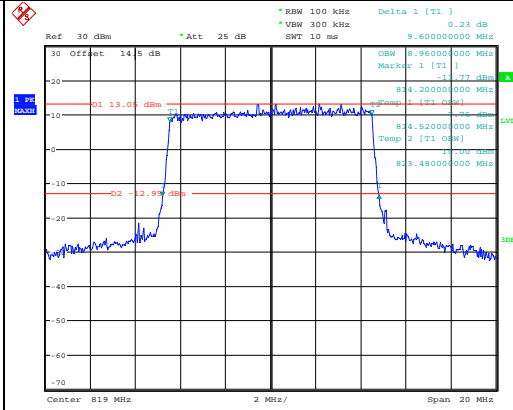
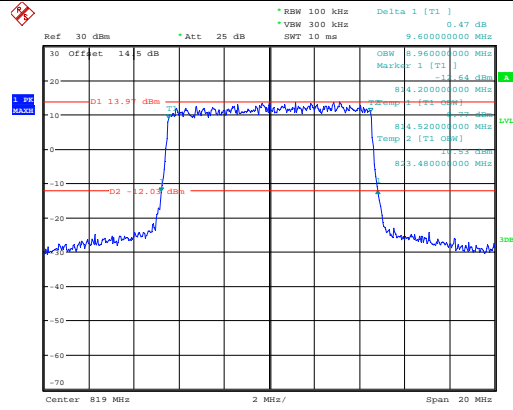
**Occupied Bandwidth**

**Channel**

**10MHz Bandwidth QPSK**

**10MHz Bandwidth 16QAM**

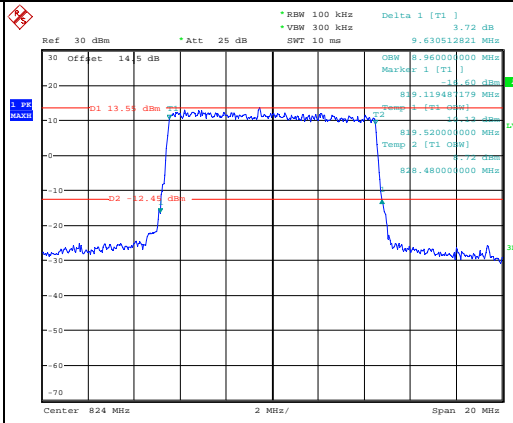
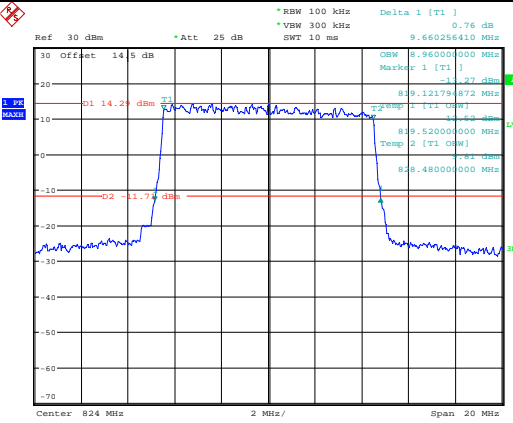
Lowest For 90S



Date: 18.AUG.2023 21:56:37

Date: 18.AUG.2023 21:56:51

Cross Channel



Date: 21.AUG.2023 13:08:13

Date: 21.AUG.2023 13:09:48

Occupied Bandwidth

Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Middle For 90S	<p>Ref 30 dBm * Att 25 dB * RBW 300 kHz Delta 1 (T1) 2.72 dB          * VSW 1 MHz * VSW 1 MHz * VSW 1 MHz          SWT 2.5 ms SWT 2.5 ms SWT 2.5 ms          14.76000000 MHz 14.82000000 MHz          OSW 13.50000000 MHz OSW 13.50000000 MHz          Marker 1 (T1) Marker 1 (T1)          -17.24 dBm -16.66 dBm          1 [T1 OSW] 1 [T1 OSW]          824.78000000 MHz 824.78000000 MHz          Temp 2 (T1 OSW) Temp 2 (T1 OSW)          826.28000000 MHz 826.28000000 MHz          Center 821.5 MHz 3 MHz/ Span 30 MHz</p>	<p>Ref 30 dBm * Att 25 dB * RBW 300 kHz Delta 1 (T1) 0.56 dB          * VSW 1 MHz * VSW 1 MHz * VSW 1 MHz          SWT 2.5 ms SWT 2.5 ms SWT 2.5 ms          14.82000000 MHz 14.82000000 MHz          OSW 13.50000000 MHz OSW 13.50000000 MHz          Marker 1 (T1) Marker 1 (T1)          -16.11 dBm -16.66 dBm          1 [T1 OSW] 1 [T1 OSW]          824.78000000 MHz 824.78000000 MHz          Temp 2 (T1 OSW) Temp 2 (T1 OSW)          826.28000000 MHz 826.28000000 MHz          Center 821.5 MHz 3 MHz/ Span 30 MHz</p>
Cross Channel	<p>Ref 30 dBm * Att 25 dB * RBW 300 kHz Delta 1 (T1) -0.04 dB          * VSW 1 MHz * VSW 1 MHz * VSW 1 MHz          SWT 2.5 ms SWT 2.5 ms SWT 2.5 ms          14.932820513 MHz 14.932820513 MHz          OSW 13.56000000 MHz OSW 13.56000000 MHz          Marker 1 (T1) Marker 1 (T1)          -17.14 dBm -17.37 dBm          1 [T1 OSW] 1 [T1 OSW]          827.22000000 MHz 827.22000000 MHz          Temp 2 (T1 OSW) Temp 2 (T1 OSW)          830.78000000 MHz 830.78000000 MHz          Center 824 MHz 3 MHz/ Span 30 MHz</p>	<p>Ref 30 dBm * Att 25 dB * RBW 300 kHz Delta 1 (T1) -0.01 dB          * VSW 1 MHz * VSW 1 MHz * VSW 1 MHz          SWT 2.5 ms SWT 2.5 ms SWT 2.5 ms          14.780128205 MHz 14.780128205 MHz          OSW 13.56000000 MHz OSW 13.56000000 MHz          Marker 1 (T1) Marker 1 (T1)          -16.64 dBm -17.47 dBm          1 [T1 OSW] 1 [T1 OSW]          827.22000000 MHz 827.22000000 MHz          Temp 2 (T1 OSW) Temp 2 (T1 OSW)          830.78000000 MHz 830.78000000 MHz          Center 824 MHz 3 MHz/ Span 30 MHz</p>

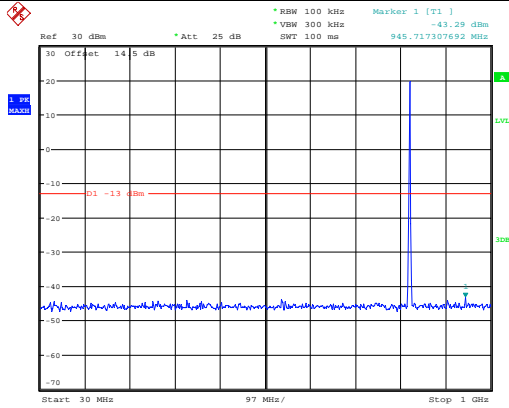


Spurious Emissions at Antenna Terminal

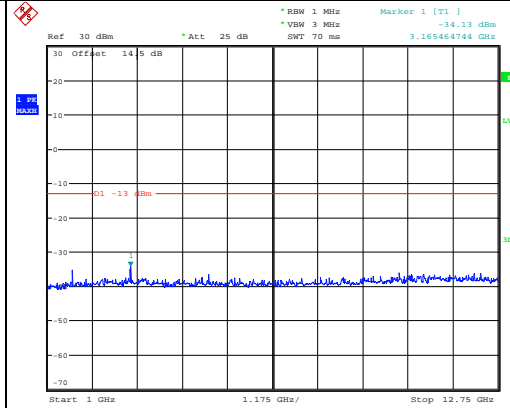
Channel

1.4MHz Bandwidth QPSK

Lowest For 90S

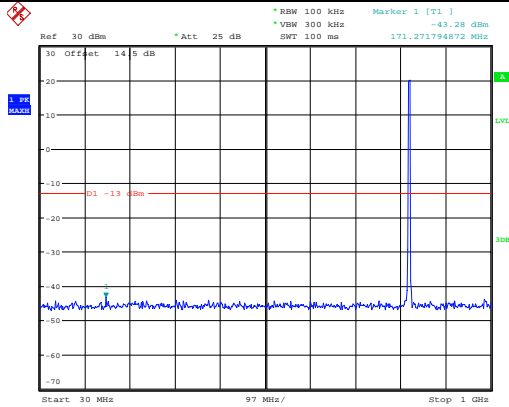


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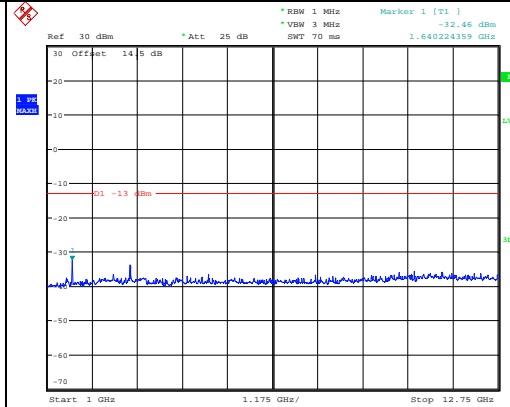


Date: 21.AUG.2023 13:40:34

Highest For 90S

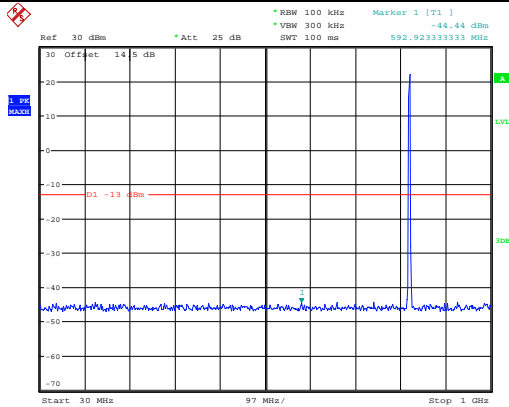


Date: 21.AUG.2023 14:37:39

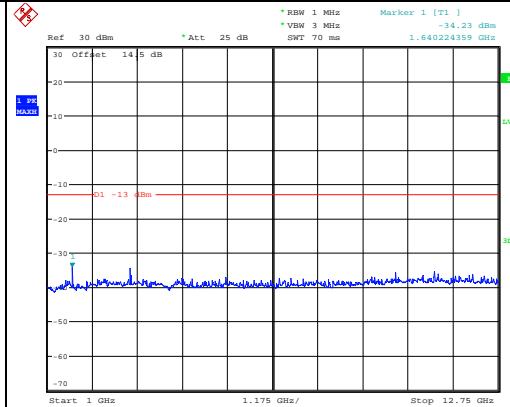


Date: 21.AUG.2023 13:41:01

Cross Channel



Date: 21.AUG.2023 14:35:15



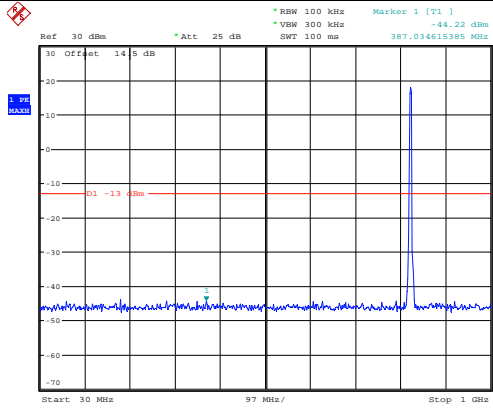
Date: 21.AUG.2023 13:43:14

Spurious Emissions at Antenna Terminal

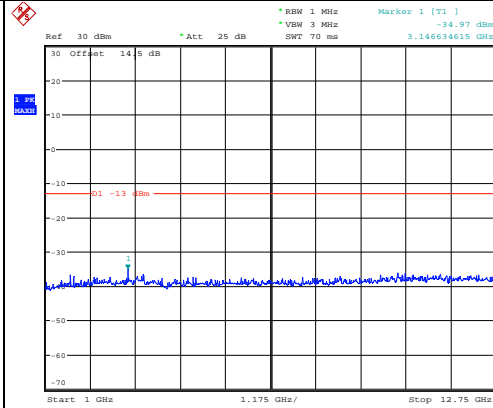
Channel

3MHz Bandwidth QPSK

Lowest For 90S

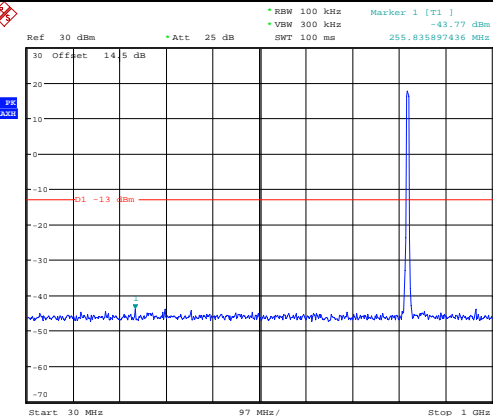


Date: 21.AUG.2023 14:39:46

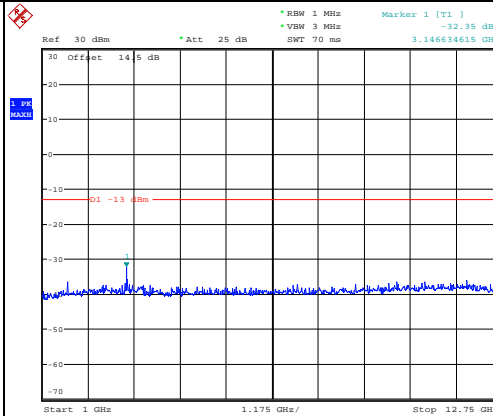


Date: 21.AUG.2023 13:48:32

Highest For 90S

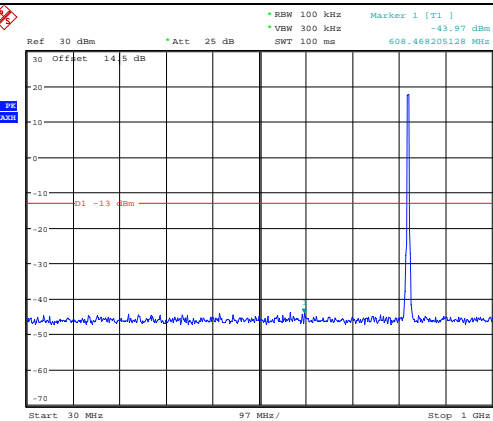


Date: 21.AUG.2023 14:38:47

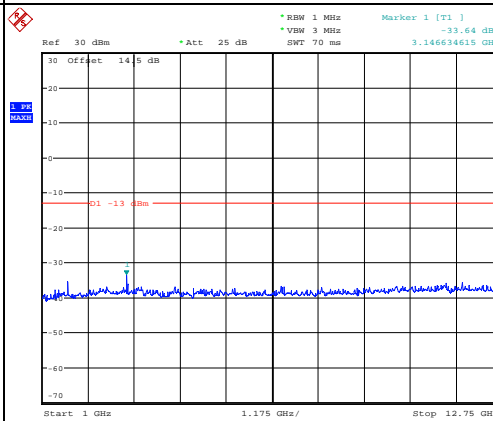


Date: 21.AUG.2023 13:47:55

Cross Channel



Date: 21.AUG.2023 14:34:30



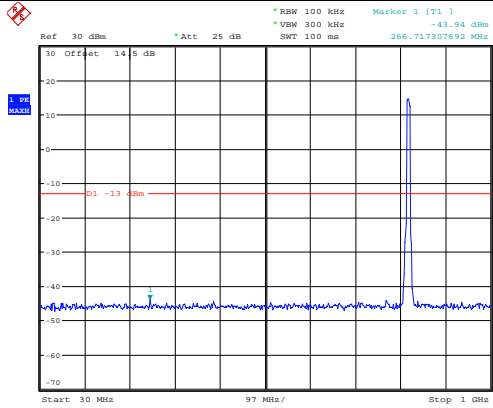
Date: 21.AUG.2023 13:44:10

Spurious Emissions at Antenna Terminal

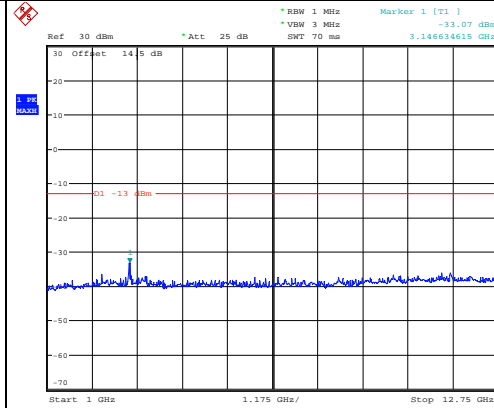
Channel

5MHz Bandwidth QPSK

Lowest For 90S

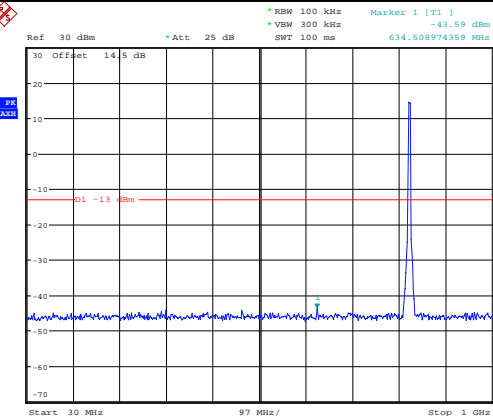


Date: 21.AUG.2023 14:40:58

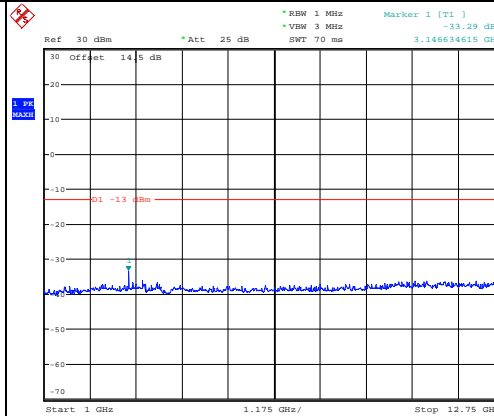


Date: 21.AUG.2023 14:16:47

Highest For 90S

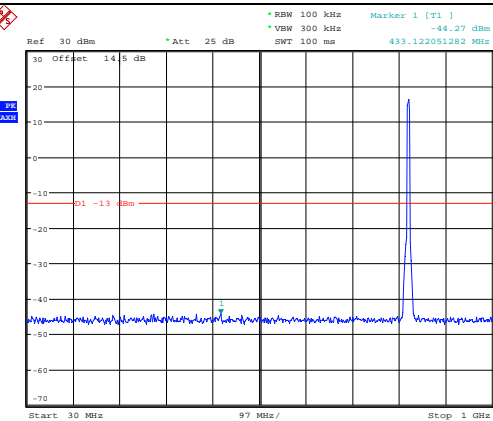


Date: 21.AUG.2023 14:41:59

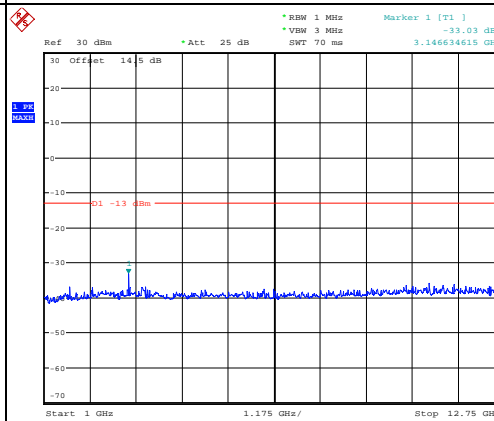


Date: 21.AUG.2023 14:18:05

Cross Channel



Date: 21.AUG.2023 14:33:52



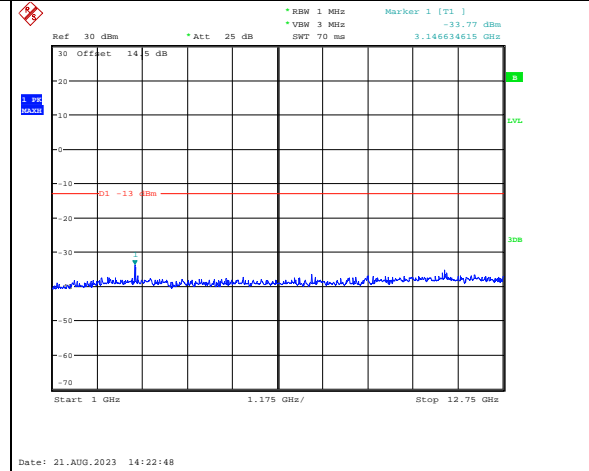
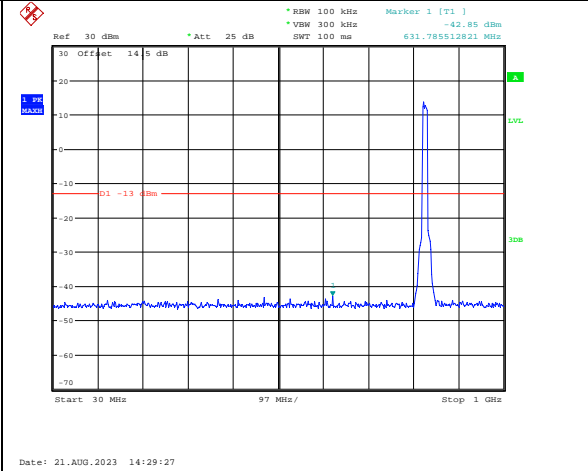
Date: 21.AUG.2023 14:21:50

### Spurious Emissions at Antenna Terminal

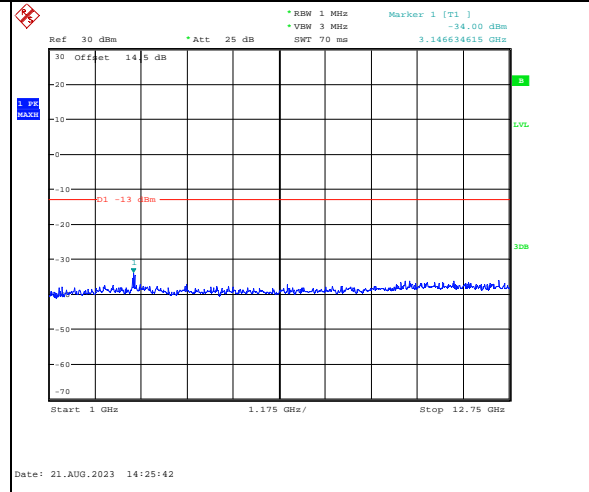
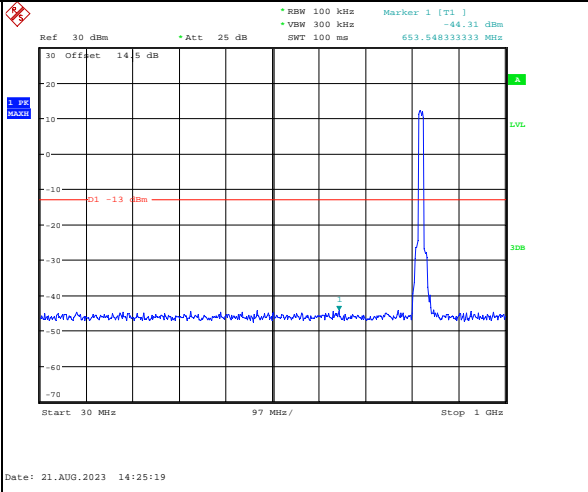
Channel

10MHz Bandwidth QPSK

Lowest For 90S



Cross Channel

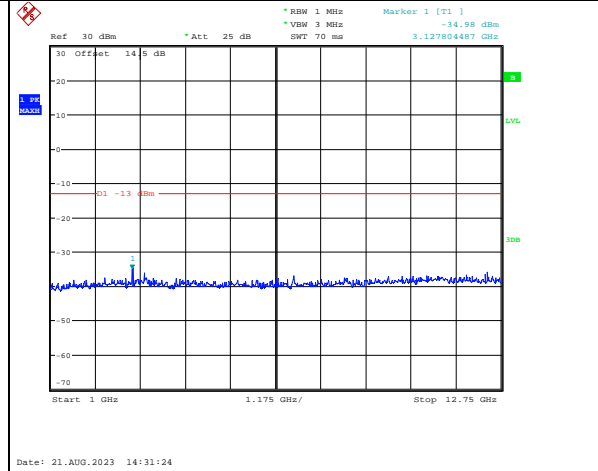
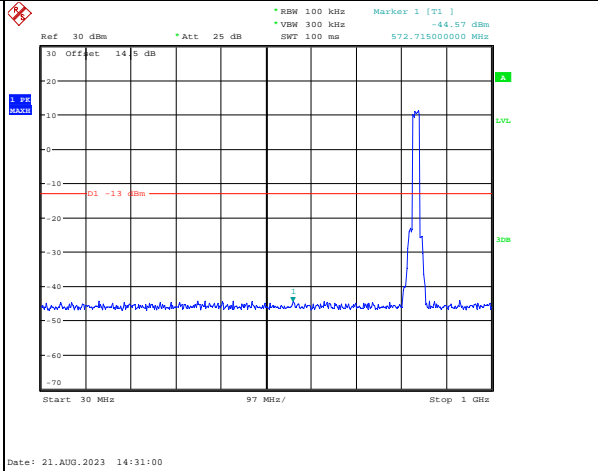


### Spurious Emissions at Antenna Terminal

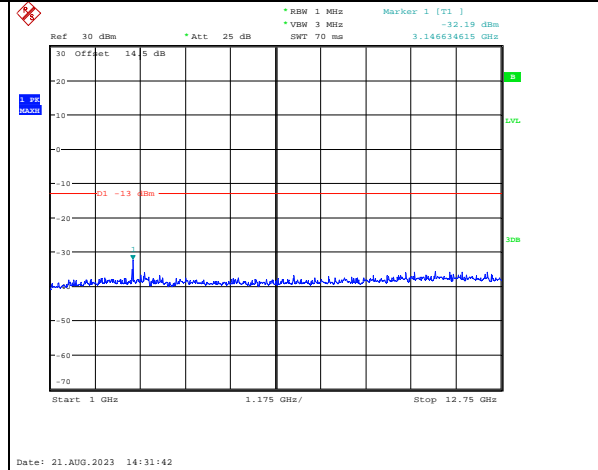
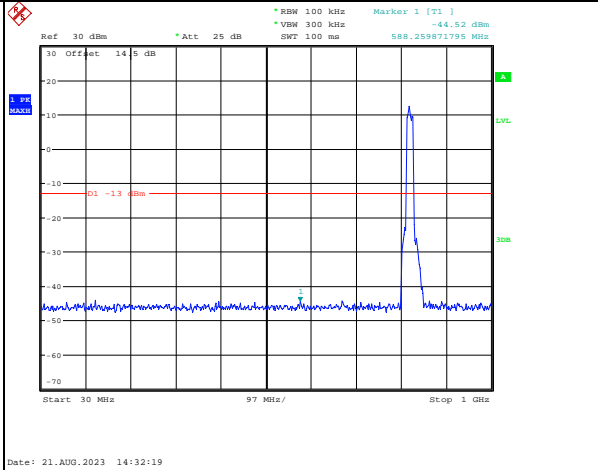
Channel

15MHz Bandwidth QPSK

Lowest For 90S



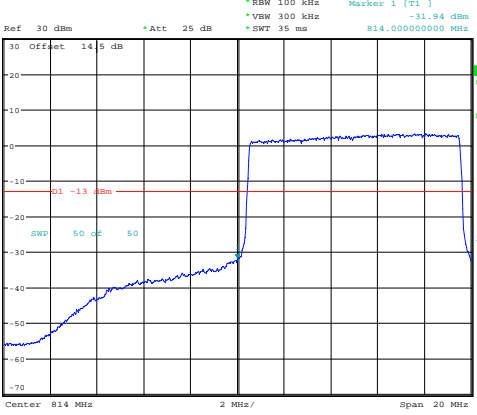
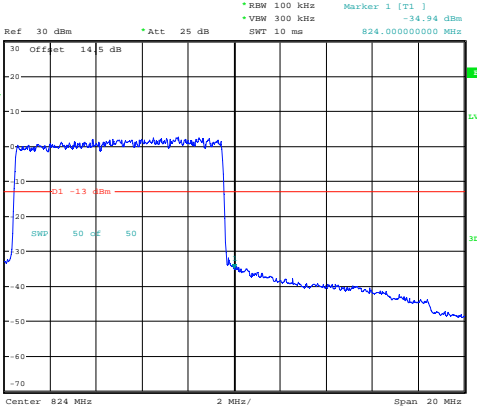
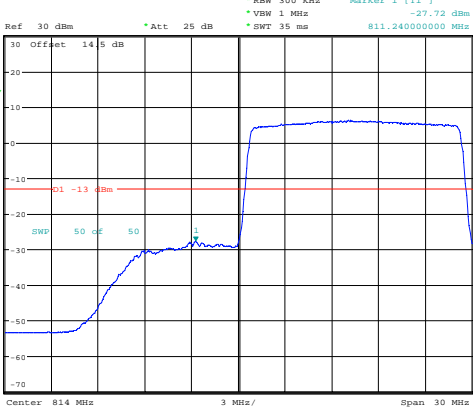
Cross Channel



Out of band emission, Band Edge

Mode	Lowest	Highest
<p>QPSK 1.4MHz For 90S</p>		
<p>QPSK 3MHz For 90S</p>		
<p>QPSK 5MHz For 90S</p>		

Out of band emission, Band Edge

Mode	Lowest	Highest
<p>QPSK 10MHz For 90S</p>	 <p>Date: 19.AUG.2023 00:36:33</p>	 <p>Date: 21.AUG.2023 13:04:00</p>
<p>QPSK 15MHz Across 90S and 22H</p>	 <p>Date: 19.AUG.2023 00:37:42</p>	

Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 1.4MHz For 90S		
16QAM 3MHz For 90S		
16QAM 5MHz For 90S		



Out of band emission, Band Edge

Mode	Lowest	Highest
<p>16QAM 10MHz For 90S</p>	<p>Ref 30 dBm * Att 25 dB * RBW 100 kHz * VBW 300 kHz * SWT 35 ms Marker 1 [T1] -33.69 dBm Center: 814 MHz 2 MHz/ Span: 20 MHz</p>	<p>Ref 30 dBm * Att 25 dB * RBW 100 kHz * VBW 300 kHz * SWT 10 ms Marker 1 [T1] -35.51 dBm Center: 824 MHz 2 MHz/ Span: 20 MHz</p>
<p>16QAM 15MHz Across 90S and 22H</p>	<p>Ref 30 dBm * Att 25 dB * RBW 300 kHz * VBW 1 MHz * SWT 35 ms Marker 1 [T1] -29.30 dBm Center: 814 MHz 3 MHz/ Span: 30 MHz</p>	

## 4.12.3 Test Data for Part 22H:

FCC§2.1046; § 22.913 (a)						
RF Output Power:						
Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Frequency For 22H	Middle Frequency For 22H	Highest Frequency For 22H		
1.4MHz QPSK	RB1#0	25.42	25.71	25.67	21.34	38.45
	RB1#3	25.73	25.94	25.94		
	RB1#5	25.36	25.65	25.7		
	RB3#0	25.09	25.81	25.56		
	RB3#3	25.55	25.82	25.72		
	RB6#0	24.23	24.82	24.71		
1.4MHz 16QAM	RB1#0	24.26	24.78	24.59	20.4	38.45
	RB1#3	24.52	25	24.8		
	RB1#5	24.35	24.76	24.6		
	RB3#0	24.8	24.94	24.85		
	RB3#3	24.54	24.94	24.82		
	RB6#0	23.28	23.77	23.73		
3MHz QPSK	RB1#0	25.26	25.77	25.74	21.17	38.45
	RB1#8	25.32	25.77	25.7		
	RB1#14	25.5	25.75	25.69		
	RB6#0	24.54	24.76	24.73		
	RB6#9	24.48	24.82	24.68		
	RB15#0	24.56	24.83	24.72		
3MHz 16QAM	RB1#0	24.51	25.43	24.85	20.83	38.45
	RB1#8	24.63	25.38	24.8		
	RB1#14	24.58	25.35	24.76		
	RB6#0	23.38	23.91	23.72		
	RB6#9	23.5	23.88	23.69		
	RB15#0	23.47	23.9	23.68		
5MHz QPSK	RB1#0	25.49	25.7	25.62	21.19	38.45
	RB1#13	25.68	25.79	25.73		
	RB1#24	25.19	25.66	25.59		
	RB15#0	24.38	24.79	24.74		
	RB15#10	24.49	24.81	24.64		
	RB25#0	24.16	24.8	24.65		
5MHz 16QAM	RB1#0	24.48	24.61	24.86	20.36	38.45
	RB1#13	24.74	24.7	24.96		
	RB1#24	24.32	24.58	24.78		
	RB15#0	23.27	23.83	23.75		
	RB15#10	23.47	23.88	23.65		
	RB25#0	23.51	23.9	23.71		

10MHz QPSK	RB1#0	25.35	25.8	25.76	21.32	38.45
	RB1#25	25.46	25.92	25.84		
	RB1#49	25.25	25.75	25.7		
	RB25#0	24.74	24.89	24.83		
	RB25#25	24.59	24.9	24.64		
	RB50#0	24.27	24.91	24.74		
10MHz 16QAM	RB1#0	24.61	25.35	24.87	20.96	38.45
	RB1#25	24.78	25.56	24.99		
	RB1#49	24.32	25.35	24.77		
	RB25#0	23.59	23.96	23.87		
	RB25#25	23.63	23.95	23.7		
	RB50#0	23.48	23.94	23.75		
15MHz QPSK	RB1#0	25.35	25.73	25.69	21.14	38.45
	RB1#38	25.31	25.72	25.74		
	RB1#74	25.57	25.6	25.6		
	RB36#0	24.76	24.86	24.85		
	RB36#39	24.63	24.83	24.75		
	RB75#0	24.33	24.88	24.79		
15MHz 16QAM	RB1#0	24.57	25.36	24.88	20.79	38.45
	RB1#38	24.34	25.39	24.84		
	RB1#74	24.43	25.2	24.67		
	RB36#0	23.51	23.85	23.83		
	RB36#39	23.29	23.84	23.75		
	RB75#0	23.57	23.89	23.8		

Note:

ERP= Conducted Power(dBm) - Lc(dB) + G<sub>T</sub>(dBd)G<sub>T</sub>(dBd)=G<sub>T</sub>(dBi)-2.15**Result:****Pass****Peak-to-average Ratio (PAR)**

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Frequency For 22H	Middle Frequency For 22H	Highest Frequency For 22H	
15MHz QPSK	RB1#0	7.08	6.92	7.02	13
	RB75#0	5.67	6.06	5.96	13
15MHz 16QAM	RB1#0	7.53	7.72	7.37	13
	RB75#0	6.7	6.96	6.86	13
				<b>Result:</b>	<b>Pass</b>

**FCC §2.1049, §22.905: Occupied Bandwidth**

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Lowest For 22H	Middle For 22H	Highest For 22H	Lowest For 22H	Middle For 22H	Highest For 22H
1.4MHz QPSK	1.11	1.116	1.11	1.323	1.29	1.332
1.4MHz 16QAM	1.092	1.104	1.104	1.285	1.434	1.326
3MHz QPSK	2.688	2.7	2.688	2.894	2.88	2.88
3MHz 16QAM	2.688	2.688	2.688	2.892	2.904	2.868
5MHz QPSK	4.54	4.52	4.52	4.974	4.96	4.94
5MHz 16QAM	4.5	4.5	4.52	4.944	4.96	4.94
10MHz QPSK	8.96	9	8.96	9.668	9.68	9.6
10MHz 16QAM	8.96	8.96	8.96	9.643	9.56	9.6
15MHz QPSK	13.62	13.56	13.5	14.88	15.074	14.76
15MHz 16QAM	13.56	13.5	13.5	14.82	14.831	14.76

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

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

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

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

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

**FCC §2.1055, §22.355: Frequency Stability**

Test Modulation:	15 MHz QPSK		Test Channel:	831.5	MHz
Test Item	Temperature (°C)	Voltage (V <sub>DC</sub> )	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.8	9	0.011	2.5
	-20	3.8	7	0.008	2.5
	-10	3.8	5	0.006	2.5
	0	3.8	1	0.001	2.5
	10	3.8	1	0.001	2.5
	20	3.8	4	0.005	2.5
	30	3.8	5	0.006	2.5
	40	3.8	12	0.014	2.5
Frequency Stability vs. Voltage	20	3.6	17	0.020	2.5
	20	4.35	17	0.020	2.5
<b>Result:</b>				<b>Pass</b>	

<b>FCC §2.1055, §22.355: Frequency Stability</b>					
Test Modulation:	15 MHz 16QAM		Test Channel:	831.5	MHz
Test Item	Temperature (°C)	Voltage (V <sub>DC</sub> )	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.8	17	0.020	2.5
	-20	3.8	4	0.005	2.5
	-10	3.8	5	0.006	2.5
	0	3.8	0	0.000	2.5
	10	3.8	6	0.007	2.5
	20	3.8	16	0.019	2.5
	30	3.8	7	0.008	2.5
	40	3.8	37	0.044	2.5
	50	3.8	50	0.060	2.5
Frequency Stability vs. Voltage	20	3.6	25	0.030	2.5
	20	4.35	34	0.041	2.5
				<b>Result:</b>	<b>Pass</b>

**4.12.4 Test Plots for Part 22H:**

(Note: The 14.5dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):

**Occupied Bandwidth**

Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest For 22H		
Middle For 22H		
Highest For 22H		

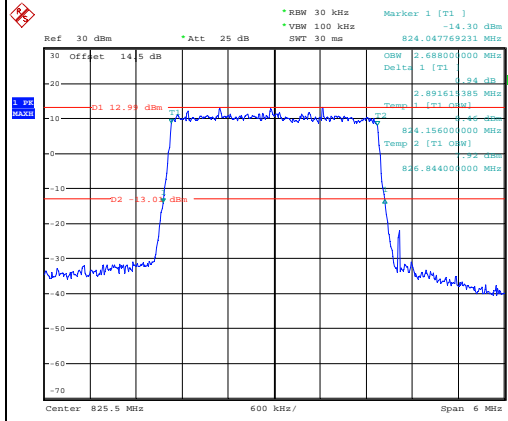
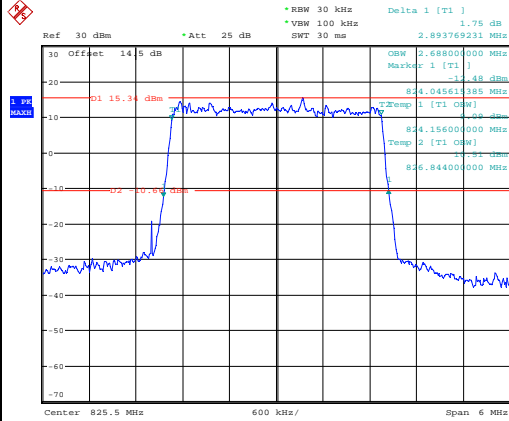
**Occupied Bandwidth**

**Channel**

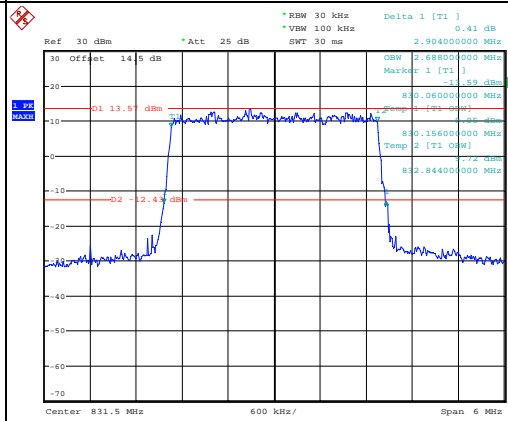
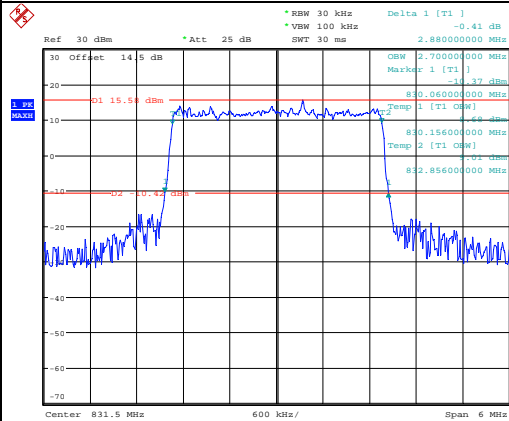
**3MHz Bandwidth QPSK**

**3MHz Bandwidth 16QAM**

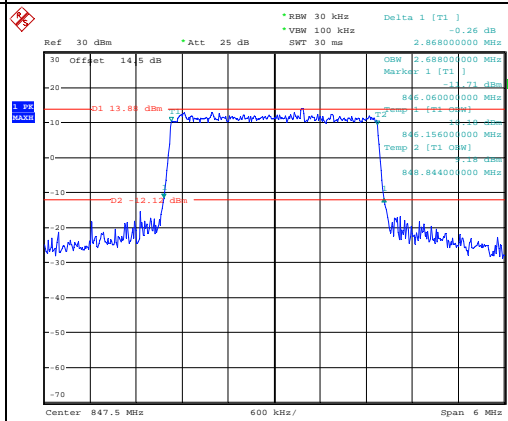
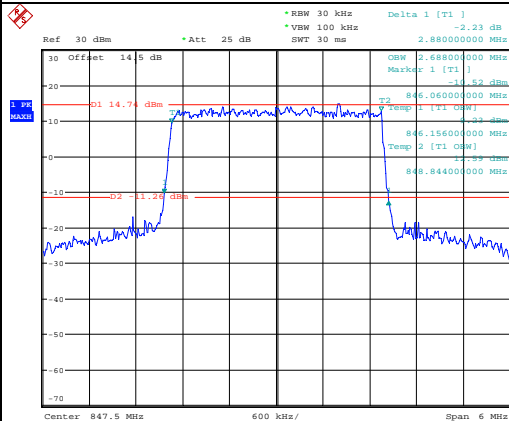
Lowest  
For 22H



Middle  
For 22H



Highest  
For 22H



Occupied Bandwidth

Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest For 22H	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] -0.67 dB            *VSW 300 kHz 4.974394613 MHz            SWT 5 ms            OSW 4.540000000 MHz            Marker 1 [T1] -0.74 dBm            D1 16.64 dBm            823.887400000 MHz            Temp 1 [T1 OSW]            824.220000000 MHz            Temp 2 [T1 OSW]            828.760000000 MHz            Center 826.5 MHz 1 MHz/ Span 10 MHz            Date: 21.AUG.2023 11:03:43</p>	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] 1.06 dB            *VSW 300 kHz 4.942615385 MHz            SWT 5 ms            OSW 4.500000000 MHz            Marker 1 [T1] -0.87 dBm            D1 16.39 dBm            823.887400000 MHz            Temp 1 [T1 OSW]            824.240000000 MHz            Temp 2 [T1 OSW]            828.740000000 MHz            Center 826.5 MHz 1 MHz/ Span 10 MHz            Date: 21.AUG.2023 11:08:21</p>
Middle For 22H	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] -1.59 dB            *VSW 300 kHz 4.960000000 MHz            SWT 5 ms            OSW 4.520000000 MHz            Marker 1 [T1] -1.30 dBm            D1 16.73 dBm            829.240000000 MHz            Temp 1 [T1 OSW]            829.240000000 MHz            Temp 2 [T1 OSW]            829.760000000 MHz            Center 831.5 MHz 1 MHz/ Span 10 MHz            Date: 18.AUG.2023 21:54:51</p>	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] 1.12 dB            *VSW 300 kHz 4.960000000 MHz            SWT 5 ms            OSW 4.500000000 MHz            Marker 1 [T1] -1.01 dBm            D1 15.44 dBm            829.000000000 MHz            Temp 1 [T1 OSW]            829.260000000 MHz            Temp 2 [T1 OSW]            829.760000000 MHz            Center 831.5 MHz 1 MHz/ Span 10 MHz            Date: 18.AUG.2023 21:55:08</p>
Highest For 22H	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] 0.49 dB            *VSW 300 kHz 4.940000000 MHz            SWT 5 ms            OSW 4.520000000 MHz            Marker 1 [T1] -0.76 dBm            D1 16.73 dBm            844.020000000 MHz            Temp 1 [T1 OSW]            844.240000000 MHz            Temp 2 [T1 OSW]            848.760000000 MHz            Center 846.5 MHz 1 MHz/ Span 10 MHz            Date: 18.AUG.2023 21:55:25</p>	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] 1.13 dB            *VSW 300 kHz 4.940000000 MHz            SWT 5 ms            OSW 4.520000000 MHz            Marker 1 [T1] -0.60 dBm            D1 16.11 dBm            844.020000000 MHz            Temp 1 [T1 OSW]            844.240000000 MHz            Temp 2 [T1 OSW]            848.760000000 MHz            Center 846.5 MHz 1 MHz/ Span 10 MHz            Date: 18.AUG.2023 21:55:42</p>



Occupied Bandwidth

Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest For 22H	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] 1.14 dB            *VSW 300 kHz *VSW 300 kHz *SWT 10 ms 9.668076923 MHz            OSW 9.960000000 MHz Marker 1 [T1] 1.68 dBm            824.14282513 MHz            Temp 1 [T1 OSW] 1.68 dBm            824.520000000 MHz            Temp 2 [T1 OSW] 1.68 dBm            833.480000000 MHz            Center 829 MHz 2 MHz/ Span 20 MHz            Date: 21.AUG.2023 11:29:15</p>	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] -0.56 dB            *VSW 300 kHz *VSW 300 kHz *SWT 10 ms 9.643461538 MHz            OSW 9.960000000 MHz Marker 1 [T1] 1.03 dBm            824.167434997 MHz            Temp 1 [T1 OSW] 1.03 dBm            824.520000000 MHz            Temp 2 [T1 OSW] 1.03 dBm            833.480000000 MHz            Center 829 MHz 2 MHz/ Span 20 MHz            Date: 21.AUG.2023 11:35:57</p>
Middle For 22H	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] 0.60 dB            *VSW 300 kHz *VSW 300 kHz *SWT 10 ms 9.680000000 MHz            OSW 9.960000000 MHz Marker 1 [T1] 1.92 dBm            826.660000000 MHz            Temp 1 [T1 OSW] 1.92 dBm            827.020000000 MHz            Temp 2 [T1 OSW] 1.92 dBm            836.020000000 MHz            Center 831.5 MHz 2 MHz/ Span 20 MHz            Date: 18.AUG.2023 21:57:08</p>	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] -3.33 dB            *VSW 300 kHz *VSW 300 kHz *SWT 10 ms 9.560000000 MHz            OSW 9.960000000 MHz Marker 1 [T1] 1.16 dBm            826.740000000 MHz            Temp 1 [T1 OSW] 1.16 dBm            827.020000000 MHz            Temp 2 [T1 OSW] 1.16 dBm            836.020000000 MHz            Center 831.5 MHz 2 MHz/ Span 20 MHz            Date: 18.AUG.2023 21:57:25</p>
Highest For 22H	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] 0.56 dB            *VSW 300 kHz *VSW 300 kHz *SWT 10 ms 9.600000000 MHz            OSW 9.960000000 MHz Marker 1 [T1] 1.62 dBm            839.160000000 MHz            Temp 1 [T1 OSW] 1.62 dBm            839.520000000 MHz            Temp 2 [T1 OSW] 1.62 dBm            848.480000000 MHz            Center 844 MHz 2 MHz/ Span 20 MHz            Date: 18.AUG.2023 21:57:43</p>	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] 2.52 dB            *VSW 300 kHz *VSW 300 kHz *SWT 10 ms 9.600000000 MHz            OSW 9.960000000 MHz Marker 1 [T1] 1.18 dBm            839.160000000 MHz            Temp 1 [T1 OSW] 1.18 dBm            839.520000000 MHz            Temp 2 [T1 OSW] 1.18 dBm            848.480000000 MHz            Center 844 MHz 2 MHz/ Span 20 MHz            Date: 18.AUG.2023 21:57:59</p>

Occupied Bandwidth

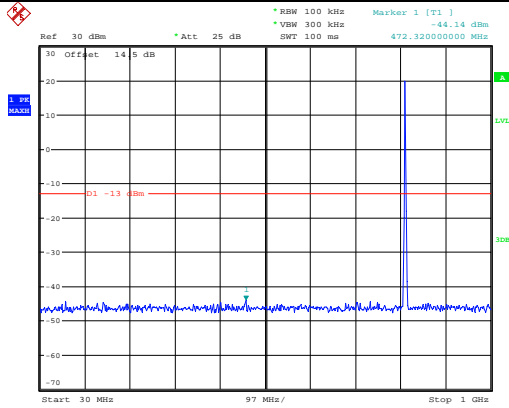
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest For 22H	<p>Date: 18.AUG.2023 21:59:38</p>	<p>Date: 18.AUG.2023 21:59:55</p>
Middle For 22H	<p>Date: 21.AUG.2023 11:39:15</p>	<p>Date: 21.AUG.2023 11:42:27</p>
Highest For 22H	<p>Date: 18.AUG.2023 22:00:12</p>	<p>Date: 18.AUG.2023 22:00:26</p>

Spurious Emissions at Antenna Terminal

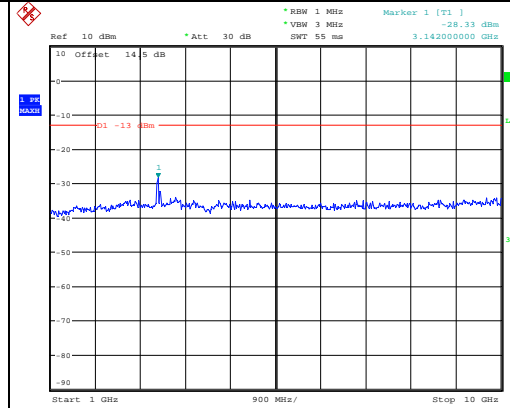
Channel

1.4MHz Bandwidth QPSK

Lowest For 22H

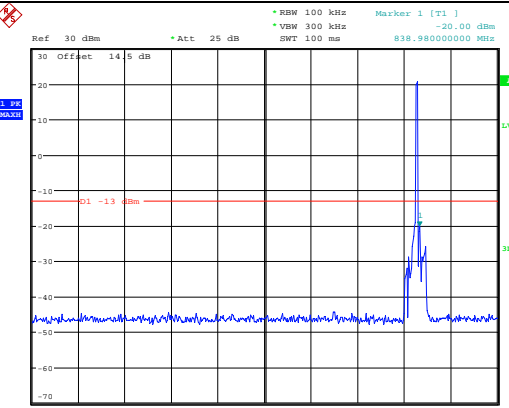


Date: 19.AUG.2023 11:18:52

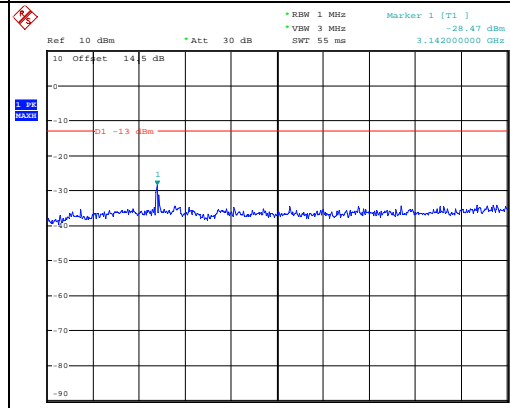


Date: 19.AUG.2023 11:19:03

Middle For 22H

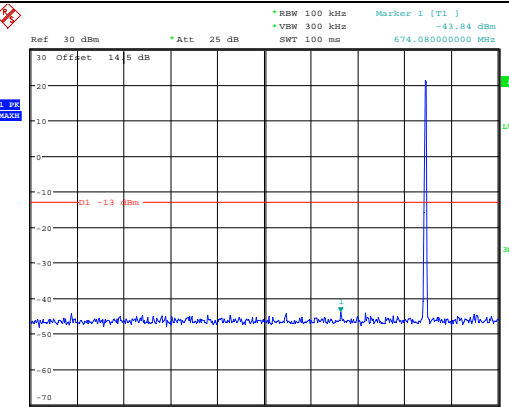


Date: 19.AUG.2023 11:19:20

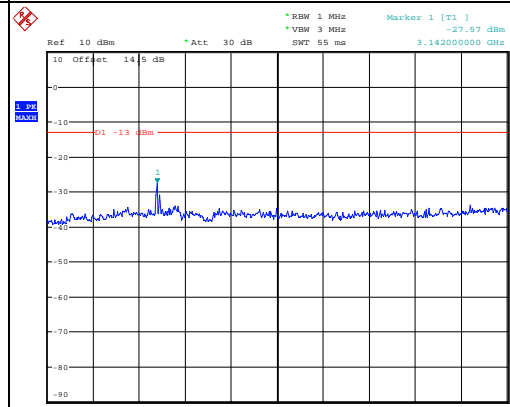


Date: 19.AUG.2023 11:19:31

Highest For 22H



Date: 19.AUG.2023 11:19:48



Date: 19.AUG.2023 11:19:59

Spurious Emissions at Antenna Terminal

Channel	3MHz Bandwidth QPSK	
Lowest For 22H	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz *VSW 300 kHz *SWT 100 ms Marker 1 [T1] -44.41 dBm Start 30 MHz 97 MHz/ Stop 1 GHz Date: 19.AUG.2023 11:21:50</p>	<p>Ref 10 dBm *Att 30 dB *RBW 1 MHz *VSW 3 MHz *SWT 55 ms Marker 1 [T1] -28.66 dBm Start 1 GHz 900 MHz/ Stop 10 GHz Date: 19.AUG.2023 11:22:02</p>
Middle For 22H	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz *VSW 300 kHz *SWT 100 ms Marker 1 [T1] -43.79 dBm Start 30 MHz 97 MHz/ Stop 1 GHz Date: 19.AUG.2023 11:22:15</p>	<p>Ref 10 dBm *Att 30 dB *RBW 1 MHz *VSW 3 MHz *SWT 55 ms Marker 1 [T1] -27.87 dBm Start 1 GHz 900 MHz/ Stop 10 GHz Date: 19.AUG.2023 11:22:26</p>
Highest For 22H	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz *VSW 300 kHz *SWT 100 ms Marker 1 [T1] -22.97 dBm Start 30 MHz 97 MHz/ Stop 1 GHz Date: 19.AUG.2023 11:22:43</p>	<p>Ref 10 dBm *Att 30 dB *RBW 1 MHz *VSW 3 MHz *SWT 55 ms Marker 1 [T1] -25.90 dBm Start 1 GHz 900 MHz/ Stop 10 GHz Date: 19.AUG.2023 11:22:54</p>

Spurious Emissions at Antenna Terminal

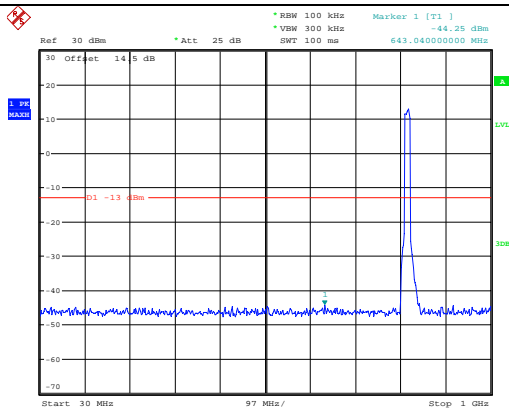
Channel	5MHz Bandwidth QPSK	
Lowest For 22H	<p>Ref 30 dBm    *Att 25 dB    *RBW 100 kHz    Marker 1 [T1]    -44.52 dBm            *VSW 300 kHz    *SWT 100 ms    251.16800000 MHz</p> <p>Date: 19.AUG.2023 11:24:00</p>	<p>Ref 10 dBm    *Att 30 dB    *RBW 1 MHz    Marker 1 [T1]    -28.80 dBm            *VSW 3 MHz    *SWT 55 ms    3.142000000 GHz</p> <p>Date: 19.AUG.2023 11:24:11</p>
Middle For 22H	<p>Ref 30 dBm    *Att 25 dB    *RBW 100 kHz    Marker 1 [T1]    -44.06 dBm            *VSW 300 kHz    *SWT 100 ms    782.72000000 MHz</p> <p>Date: 19.AUG.2023 11:24:27</p>	<p>Ref 10 dBm    *Att 30 dB    *RBW 1 MHz    Marker 1 [T1]    -28.87 dBm            *VSW 3 MHz    *SWT 55 ms    3.124000000 GHz</p> <p>Date: 19.AUG.2023 11:24:39</p>
Highest For 22H	<p>Ref 30 dBm    *Att 25 dB    *RBW 100 kHz    Marker 1 [T1]    -44.36 dBm            *VSW 300 kHz    *SWT 100 ms    685.72000000 MHz</p> <p>Date: 19.AUG.2023 11:24:56</p>	<p>Ref 10 dBm    *Att 30 dB    *RBW 1 MHz    Marker 1 [T1]    -30.19 dBm            *VSW 3 MHz    *SWT 55 ms    3.142000000 GHz</p> <p>Date: 19.AUG.2023 11:25:07</p>

Spurious Emissions at Antenna Terminal

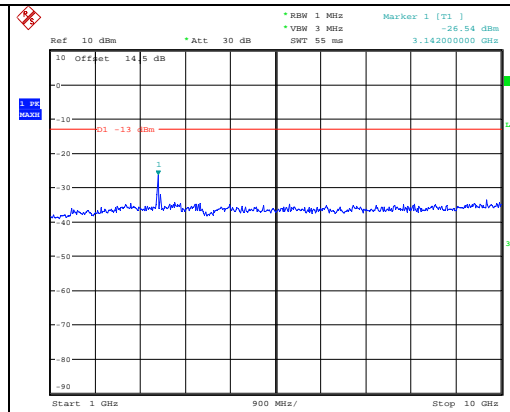
Channel

10MHz Bandwidth QPSK

Lowest For 22H

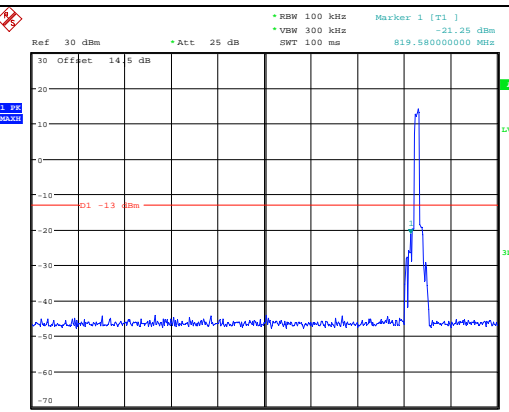


Date: 19.AUG.2023 11:27:43

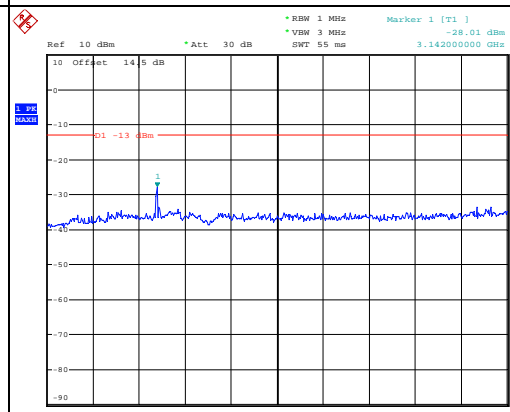


Date: 19.AUG.2023 11:27:58

Middle For 22H

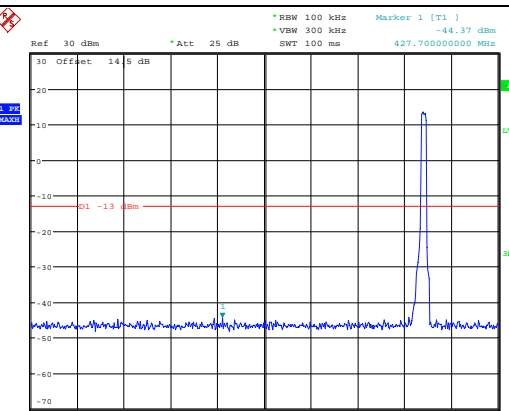


Date: 19.AUG.2023 11:28:15

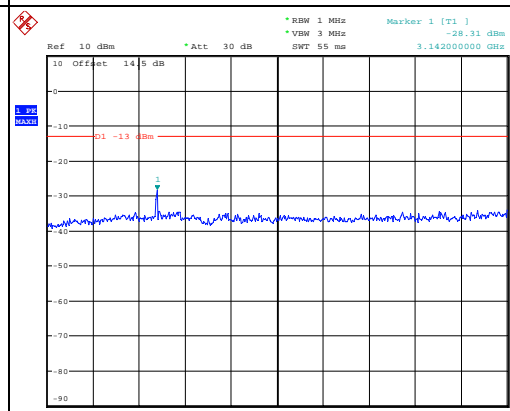


Date: 19.AUG.2023 11:28:26

Highest For 22H



Date: 19.AUG.2023 11:28:40



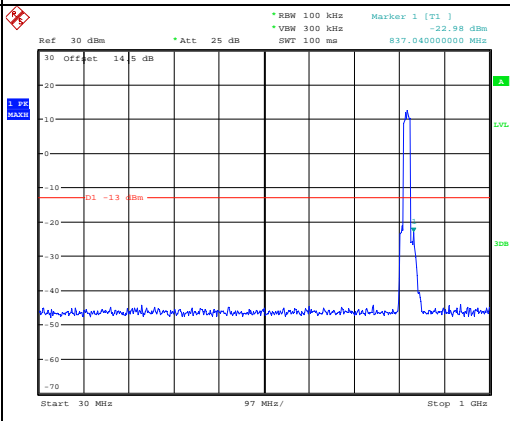
Date: 19.AUG.2023 11:28:51

Spurious Emissions at Antenna Terminal

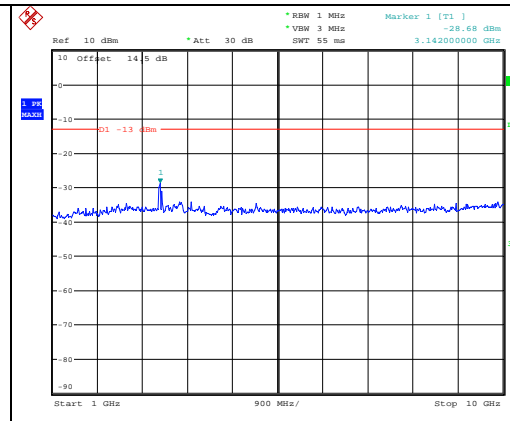
Channel

15MHz Bandwidth QPSK

Lowest For 22H

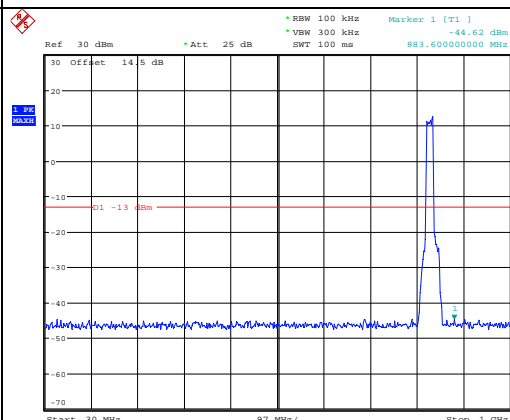


Date: 19.AUG.2023 11:30:24

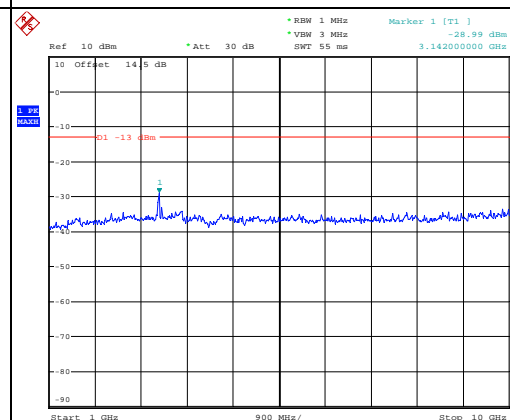


Date: 19.AUG.2023 11:30:35

Middle For 22H

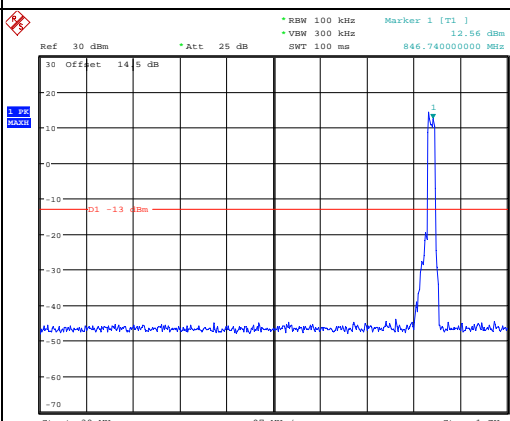


Date: 19.AUG.2023 11:30:52

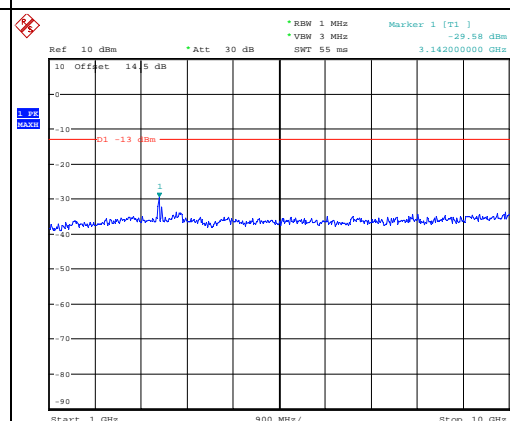


Date: 19.AUG.2023 11:31:03

Highest For 22H



Date: 19.AUG.2023 11:31:17



Date: 19.AUG.2023 11:31:31

Out of band emission, Band Edge

Mode	Lowest	Highest
<p>QPSK 1.4MHz For 22H</p>	<p>Date: 21.AUG.2023 09:10:32</p>	<p>Date: 19.AUG.2023 00:33:10</p>
<p>QPSK 3MHz For 22H</p>	<p>Date: 21.AUG.2023 10:57:17</p>	<p>Date: 19.AUG.2023 00:34:22</p>
<p>QPSK 5MHz For 22H</p>	<p>Date: 21.AUG.2023 11:06:39</p>	<p>Date: 19.AUG.2023 00:35:35</p>



Out of band emission, Band Edge

Mode	Lowest	Highest
<p>QPSK 10MHz For 22H</p>	<p>Date: 21.AUG.2023 11:33:47</p>	<p>Date: 19.AUG.2023 00:36:52</p>
<p>QPSK 15MHz For 22H</p>	<p>Date: 21.AUG.2023 11:40:12</p>	<p>Date: 19.AUG.2023 00:37:57</p>

Out of band emission, Band Edge

Mode	Lowest	Highest
<p>16QAM 1.4MHz For 22H</p>	<p>Date: 21.AUG.2023 09:22:25</p>	<p>Date: 19.AUG.2023 00:33:17</p>
<p>16QAM 3MHz For 22H</p>	<p>Date: 21.AUG.2023 10:56:32</p>	<p>Date: 19.AUG.2023 00:34:30</p>
<p>16QAM 5MHz For 22H</p>	<p>Date: 21.AUG.2023 11:07:23</p>	<p>Date: 19.AUG.2023 00:35:43</p>

Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 10MHz For 22H		
16QAM 15MHz For 22H		

**4.13 Antenna Port Test Data and Results for LTE Band 41**

Serial Number:	29K3-1	Test Date:	2023/8/17-2023/8/21
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	25.2-25.9	Relative Humidity: (%)	56-61	ATM Pressure: (kPa)	99.7-100
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
Weinschel	Power Splitter	1515	RA914	Each time	N/A
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A

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

**Test Frequency for Each Mode:**

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	2498.5	2593	2687.5
10MHz	2501	2593	2685
15MHz	2503.5	2593	2682.5
20MHz	2506	2593	2680

**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	18.81	17.9	19.74	17.56	33
	RB1#13	18.89	17.96	19.86		
	RB1#24	18.75	17.99	19.74		
	RB15#0	18.77	17.87	19.81		
	RB15#10	18.8	17.97	19.76		
	RB25#0	18.76	17.96	19.8		
5MHz 16QAM	RB1#0	19.04	17.91	19.76	17.59	33
	RB1#13	19.1	18.02	19.89		
	RB1#24	18.98	17.9	19.77		
	RB15#0	18.8	17.89	19.79		
	RB15#10	18.82	17.93	19.77		
	RB25#0	18.77	17.97	19.78		
10MHz QPSK	RB1#0	18.93	18.67	19.14	17.09	33
	RB1#25	19.13	18.95	19.39		
	RB1#49	18.79	18.8	19.11		
	RB25#0	18.75	18.64	19.14		
	RB25#25	18.81	18.7	19.16		
	RB50#0	18.79	18.66	19.08		
10MHz 16QAM	RB1#0	18.98	18.86	19.04	17.03	33
	RB1#25	19.18	19.15	19.33		
	RB1#49	18.85	18.92	19.04		
	RB25#0	18.78	18.68	19.15		
	RB25#25	18.85	18.78	19.16		
	RB50#0	18.8	18.71	19.1		
15MHz QPSK	RB1#0	18.84	18.55	19.34	17.25	33
	RB1#38	18.83	18.61	19.42		
	RB1#74	18.59	18.71	19.3		
	RB36#0	18.82	18.72	19.53		
	RB36#39	18.78	18.67	19.52		
	RB75#0	18.76	18.6	19.55		
15MHz 16QAM	RB1#0	19.02	18.7	19.27	17.14	33
	RB1#38	19.04	18.81	19.33		
	RB1#74	18.8	18.72	19.23		
	RB36#0	18.83	18.59	19.38		
	RB36#39	18.81	18.68	19.39		
	RB75#0	18.76	18.62	19.44		
20MHz QPSK	RB1#0	18.74	18.34	19.32	17.54	33
	RB1#50	19.07	18.85	19.84		
	RB1#99	18.5	18.38	19.35		

	RB50#0	18.71	18.55	19.49		
	RB50#50	18.76	18.67	19.57		
	RB100#0	18.71	18.61	19.56		
20MHz 16QAM	RB1#0	18.93	18.43	19.3	17.52	33
	RB1#50	19.27	18.9	19.82		
	RB1#99	18.73	18.47	19.35		
	RB50#0	18.7	18.52	19.52		
	RB50#50	18.76	18.64	19.64		
	RB100#0	18.73	18.6	19.55		

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

**Result:** **Pass**

### Peak-to-average Ratio (PAR)

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit(dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	5.32	5.22	5	13
	RB100#0	5.64	5.67	5.77	13
20MHz 16QAM	RB1#0	6.76	5.8	6.35	13
	RB100#0	6.44	6.47	6.51	13

**Result:** **Pass**

### FCC §2.1049, §27.53: Occupied Bandwidth

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
5MHz QPSK	4.5	4.52	4.52	5.12	5.12	4.98
5MHz 16QAM	4.5	4.52	4.5	4.9	5.18	5
10MHz QPSK	8.96	8.96	8.96	9.64	9.92	9.6
10MHz 16QAM	8.96	8.96	8.96	9.6	9.48	9.48
15MHz QPSK	13.44	13.62	13.5	15.24	16.2	14.7
15MHz 16QAM	13.5	13.56	13.56	15.3	15.24	15.42
20MHz QPSK	17.92	18	17.92	19.36	19.28	19.2
20MHz 16QAM	17.92	17.92	17.84	19.28	19.28	19.6

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

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

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

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

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

<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	3.8	2497.110	2496.00	2688.962	2690
	-20	3.8	2497.116	2496.00	2688.962	2690
	-10	3.8	2497.117	2496.00	2688.978	2690
	0	3.8	2497.103	2496.00	2688.964	2690
	10	3.8	2497.095	2496.00	2688.962	2690
	20	3.8	2497.120	2496.00	2688.960	2690
	30	3.8	2497.117	2496.00	2688.975	2690
	40	3.8	2497.100	2496.00	2688.974	2690
	50	3.8	2497.102	2496.00	2688.976	2690
Frequency Stability vs. Voltage	20	3.6	2497.108	2496.00	2688.960	2690
	20	4.35	2497.113	2496.00	2688.970	2690
					<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	3.8	2497.108	2496.00	2688.892	2690
	-20	3.8	2497.118	2496.00	2688.904	2690
	-10	3.8	2497.096	2496.00	2688.895	2690
	0	3.8	2497.115	2496.00	2688.897	2690
	10	3.8	2497.092	2496.00	2688.891	2690
	20	3.8	2497.120	2496.00	2688.880	2690
	30	3.8	2497.114	2496.00	2688.884	2690
	40	3.8	2497.097	2496.00	2688.896	2690
	50	3.8	2497.110	2496.00	2688.897	2690
Frequency Stability vs. Voltage	20	3.6	2497.101	2496.00	2688.898	2690
	20	4.35	2497.091	2496.00	2688.900	2690
					<b>Result:</b>	<b>Pass</b>

**Test Plots**(Note: The 14.5dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):

<b>Occupied Bandwidth</b>		
<b>Channel</b>	<b>5MHz Bandwidth QPSK</b>	<b>5MHz Bandwidth 16QAM</b>
<b>Lowest</b>	<p style="font-size: small;">                     *RBW 100 kHz Delta 1 [T1] -0.01 dB                      *VSW 300 kHz                      *Att 25 dB                      *SWT 5 ms                      Center 5.120000000 MHz                      OSW 4.500000000 MHz                      Marker 1 [T1] -1.01 dBm                      D1 12.9 dBm                      Temp 1 [T1 OSW]                      Temp 2 [T1 OSW]                 </p>	<p style="font-size: small;">                     *RBW 100 kHz Delta 1 [T1] -1.67 dB                      *VSW 300 kHz                      *Att 25 dB                      *SWT 5 ms                      Center 4.900000000 MHz                      OSW 4.500000000 MHz                      Marker 1 [T1] -1.70 dBm                      D1 12.4 dBm                      Temp 1 [T1 OSW]                      Temp 2 [T1 OSW]                 </p>
<b>Middle</b>	<p style="font-size: small;">                     *RBW 100 kHz Delta 1 [T1] 0.96 dB                      *VSW 300 kHz                      *Att 25 dB                      *SWT 5 ms                      Center 5.120000000 MHz                      OSW 4.500000000 MHz                      Marker 1 [T1] -1.88 dBm                      D1 12.9 dBm                      Temp 1 [T1 OSW]                      Temp 2 [T1 OSW]                 </p>	<p style="font-size: small;">                     *RBW 100 kHz Delta 1 [T1] -0.19 dB                      *VSW 300 kHz                      *Att 25 dB                      *SWT 5 ms                      Center 5.180000000 MHz                      OSW 4.500000000 MHz                      Marker 1 [T1] -1.33 dBm                      D1 12.5 dBm                      Temp 1 [T1 OSW]                      Temp 2 [T1 OSW]                 </p>
<b>Highest</b>	<p style="font-size: small;">                     *RBW 100 kHz Delta 1 [T1] -0.42 dB                      *VSW 300 kHz                      *Att 25 dB                      *SWT 5 ms                      Center 4.980000000 MHz                      OSW 4.500000000 MHz                      Marker 1 [T1] -1.88 dBm                      D1 7.79 dBm                      Temp 1 [T1 OSW]                      Temp 2 [T1 OSW]                 </p>	<p style="font-size: small;">                     *RBW 100 kHz Delta 1 [T1] -0.03 dB                      *VSW 300 kHz                      *Att 25 dB                      *SWT 5 ms                      Center 5.000000000 MHz                      OSW 4.500000000 MHz                      Marker 1 [T1] -1.82 dBm                      D1 7.94 dBm                      Temp 1 [T1 OSW]                      Temp 2 [T1 OSW]                 </p>



### Occupied Bandwidth

Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] 1.51 dB *VSW 300 kHz *SWT 10 ms 9.640000000 MHz OSW 8.960000000 MHz Marker 1 [T1] -1.93 dBm Temp 1 [T1 OSW] 2.496200000 GHz Temp 2 [T1 OSW] 2.496520000 GHz Temp 3 [T1 OSW] 2.505480000 GHz Date: 18.AUG.2023 22:03:38</p>	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] 1.07 dB *VSW 300 kHz *SWT 10 ms 9.600000000 MHz OSW 8.960000000 MHz Marker 1 [T1] -1.07 dBm Temp 1 [T1 OSW] 2.496200000 GHz Temp 2 [T1 OSW] 2.496520000 GHz Temp 3 [T1 OSW] 2.505480000 GHz Date: 18.AUG.2023 22:03:55</p>
Middle	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] 1.03 dB *VSW 300 kHz *SWT 10 ms 9.920000000 MHz OSW 8.960000000 MHz Marker 1 [T1] -1.56 dBm Temp 1 [T1 OSW] 2.587920000 GHz Temp 2 [T1 OSW] 2.588520000 GHz Temp 3 [T1 OSW] 2.597480000 GHz Date: 18.AUG.2023 22:04:12</p>	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] 0.61 dB *VSW 300 kHz *SWT 10 ms 9.480000000 MHz OSW 8.960000000 MHz Marker 1 [T1] -1.62 dBm Temp 1 [T1 OSW] 2.588280000 GHz Temp 2 [T1 OSW] 2.588520000 GHz Temp 3 [T1 OSW] 2.597480000 GHz Date: 18.AUG.2023 22:04:29</p>
Highest	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] 0.94 dB *VSW 300 kHz *SWT 10 ms 9.600000000 MHz OSW 8.960000000 MHz Marker 1 [T1] -1.20 dBm Temp 1 [T1 OSW] 2.680160000 GHz Temp 2 [T1 OSW] 2.680520000 GHz Temp 3 [T1 OSW] 2.689480000 GHz Date: 18.AUG.2023 22:04:46</p>	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] 0.66 dB *VSW 300 kHz *SWT 10 ms 9.480000000 MHz OSW 8.960000000 MHz Marker 1 [T1] -1.48 dBm Temp 1 [T1 OSW] 2.680240000 GHz Temp 2 [T1 OSW] 2.680520000 GHz Temp 3 [T1 OSW] 2.689480000 GHz Date: 18.AUG.2023 22:05:03</p>

### Occupied Bandwidth

Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest	<p>Date: 18.AUG.2023 22:06:05</p>	<p>Date: 18.AUG.2023 22:06:25</p>
Middle	<p>Date: 18.AUG.2023 22:06:45</p>	<p>Date: 18.AUG.2023 22:07:05</p>
Highest	<p>Date: 18.AUG.2023 22:07:23</p>	<p>Date: 18.AUG.2023 22:07:39</p>

Occupied Bandwidth

Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 [T1] 1.04 dB *VMW 1 MHz *SWT 2.5 ms 19.360000000 MHz</p> <p>OSW 7.920000000 MHz Marker 1 [T1] -11.98 dBm</p> <p>Temp 1 [T1] OSW] 2.496320000 GHz</p> <p>Temp 2 [T1] OSW] 2.515040000 GHz</p> <p>Center 2.506 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 18.AUG.2023 22:08:42</p>	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 [T1] 0.97 dB *VMW 1 MHz *SWT 2.5 ms 19.280000000 MHz</p> <p>OSW 7.920000000 MHz Marker 1 [T1] -11.05 dBm</p> <p>Temp 1 [T1] OSW] 2.496400000 GHz</p> <p>Temp 2 [T1] OSW] 2.515040000 GHz</p> <p>Center 2.506 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 18.AUG.2023 22:08:58</p>
Middle	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 [T1] -0.27 dB *VMW 1 MHz *SWT 2.5 ms 19.280000000 MHz</p> <p>OSW 8.000000000 MHz Marker 1 [T1] -11.80 dBm</p> <p>Temp 1 [T1] OSW] 2.583320000 GHz</p> <p>Temp 2 [T1] OSW] 2.601960000 GHz</p> <p>Center 2.593 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 18.AUG.2023 22:09:16</p>	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 [T1] -1.43 dB *VMW 1 MHz *SWT 2.5 ms 19.280000000 MHz</p> <p>OSW 8.000000000 MHz Marker 1 [T1] -11.24 dBm</p> <p>Temp 1 [T1] OSW] 2.583400000 GHz</p> <p>Temp 2 [T1] OSW] 2.601960000 GHz</p> <p>Center 2.593 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 18.AUG.2023 22:09:32</p>
Highest	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 [T1] -0.03 dB *VMW 1 MHz *SWT 2.5 ms 19.200000000 MHz</p> <p>OSW 7.920000000 MHz Marker 1 [T1] -11.85 dBm</p> <p>Temp 1 [T1] OSW] 2.671040000 GHz</p> <p>Temp 2 [T1] OSW] 2.688960000 GHz</p> <p>Center 2.68 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 18.AUG.2023 22:09:50</p>	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 [T1] -1.51 dB *VMW 1 MHz *SWT 2.5 ms 19.600000000 MHz</p> <p>OSW 7.840000000 MHz Marker 1 [T1] -11.62 dBm</p> <p>Temp 1 [T1] OSW] 2.671040000 GHz</p> <p>Temp 2 [T1] OSW] 2.688880000 GHz</p> <p>Center 2.68 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 18.AUG.2023 22:10:06</p>

### Spurious Emissions at Antenna Terminal

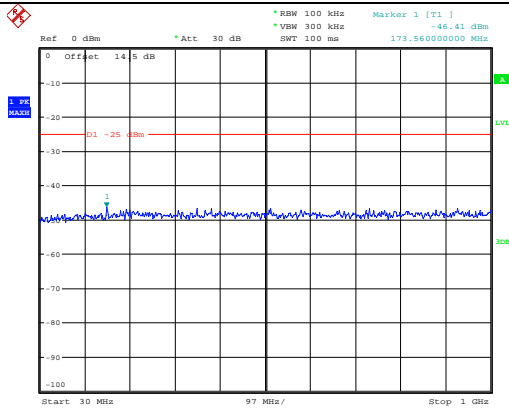
Channel	5MHz Bandwidth QPSK	
Lowest	<p>Ref 0 dBm *Att 30 dB *RBW 100 kHz Marker 1 [T1] -45.75 dBm            *VSW 300 kHz SWT 100 ms            Start 30 MHz 97 MHz/ Stop 1 GHz            Date: 19.AUG.2023 11:32:04</p>	<p>Ref 30 dBm *Att 25 dB *RBW 1 MHz Marker 1 [T1] -32.47 dBm            *VSW 3 MHz SWT 150 ms            Start 1 GHz 2.55 GHz/ Stop 26.5 GHz            Date: 19.AUG.2023 11:32:15</p>
Middle	<p>Ref 0 dBm *Att 30 dB *RBW 100 kHz Marker 1 [T1] -46.52 dBm            *VSW 300 kHz SWT 100 ms            Start 30 MHz 97 MHz/ Stop 1 GHz            Date: 19.AUG.2023 11:32:32</p>	<p>Ref 30 dBm *Att 25 dB *RBW 1 MHz Marker 1 [T1] -32.67 dBm            *VSW 3 MHz SWT 150 ms            Start 1 GHz 2.55 GHz/ Stop 26.5 GHz            Date: 19.AUG.2023 11:32:43</p>
Highest	<p>Ref 0 dBm *Att 30 dB *RBW 100 kHz Marker 1 [T1] -46.51 dBm            *VSW 300 kHz SWT 100 ms            Start 30 MHz 97 MHz/ Stop 1 GHz            Date: 19.AUG.2023 11:32:56</p>	<p>Ref 30 dBm *Att 25 dB *RBW 1 MHz Marker 1 [T1] -31.97 dBm            *VSW 3 MHz SWT 150 ms            Start 1 GHz 2.55 GHz/ Stop 26.5 GHz            Date: 19.AUG.2023 11:33:08</p>

### Spurious Emissions at Antenna Terminal

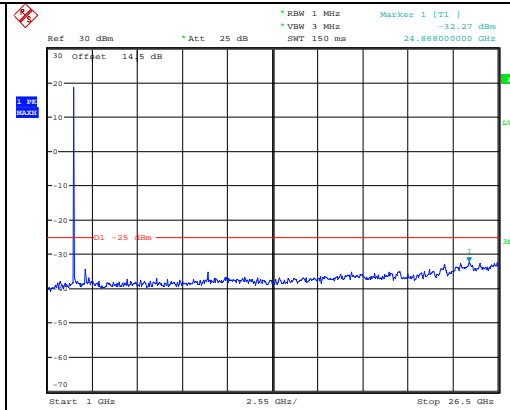
Channel

10MHz Bandwidth QPSK

Lowest

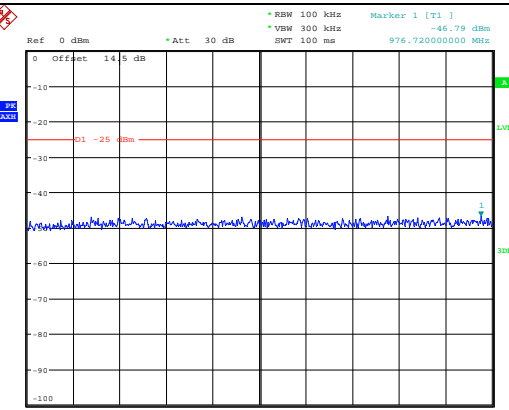


Date: 19.AUG.2023 11:35:04

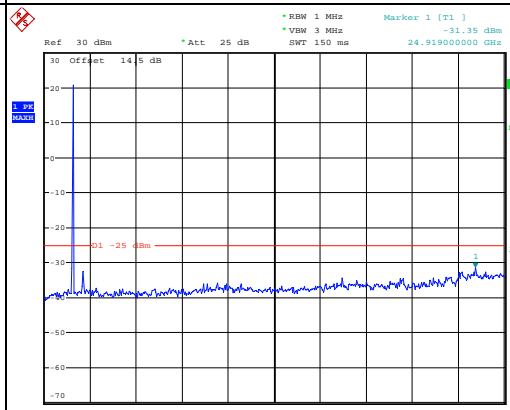


Date: 19.AUG.2023 11:35:15

Middle

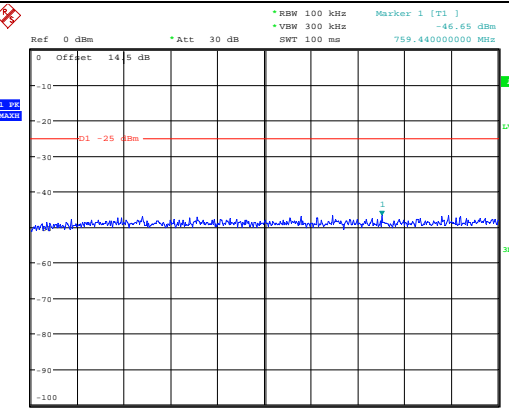


Date: 19.AUG.2023 11:35:29

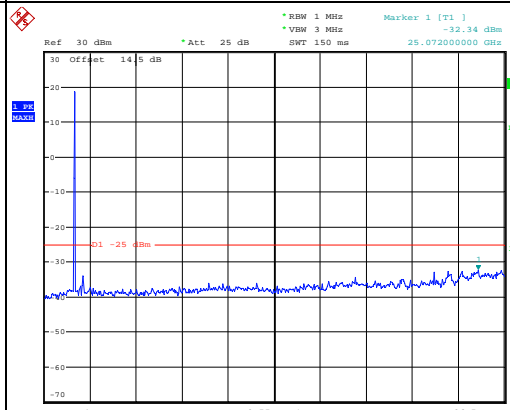


Date: 19.AUG.2023 11:35:40

Highest



Date: 19.AUG.2023 11:35:54



Date: 19.AUG.2023 11:36:05

Spurious Emissions at Antenna Terminal

Channel	15MHz Bandwidth QPSK	
Lowest	<p>Ref 0 dBm *Att 30 dB *RBW 100 kHz *VMW 300 kHz *SWT 100 ms Marker 1 [T1] -46.57 dBm Start 30 MHz 97 MHz/ Stop 1 GHz Date: 19.AUG.2023 11:37:33</p>	<p>Ref 30 dBm *Att 25 dB *RBW 1 MHz *VMW 3 MHz *SWT 150 ms Marker 1 [T1] -31.87 dBm Start 1 GHz 2.55 GHz/ Stop 26.5 GHz Date: 19.AUG.2023 11:37:44</p>
Middle	<p>Ref 0 dBm *Att 30 dB *RBW 100 kHz *VMW 300 kHz *SWT 100 ms Marker 1 [T1] -46.65 dBm Start 30 MHz 97 MHz/ Stop 1 GHz Date: 19.AUG.2023 11:38:01</p>	<p>Ref 30 dBm *Att 25 dB *RBW 1 MHz *VMW 3 MHz *SWT 150 ms Marker 1 [T1] -32.12 dBm Start 1 GHz 2.55 GHz/ Stop 26.5 GHz Date: 19.AUG.2023 11:38:12</p>
Highest	<p>Ref 0 dBm *Att 30 dB *RBW 100 kHz *VMW 300 kHz *SWT 100 ms Marker 1 [T1] -46.17 dBm Start 30 MHz 97 MHz/ Stop 1 GHz Date: 19.AUG.2023 11:38:25</p>	<p>Ref 30 dBm *Att 25 dB *RBW 1 MHz *VMW 3 MHz *SWT 150 ms Marker 1 [T1] -32.50 dBm Start 1 GHz 2.55 GHz/ Stop 26.5 GHz Date: 19.AUG.2023 11:38:37</p>

### Spurious Emissions at Antenna Terminal

Channel	20MHz Bandwidth QPSK	
Lowest	<p>Ref 0 dBm *Att 30 dB *RBW 100 kHz Marker 1 [T1] -46.35 dBm            *VSW 300 kHz *SWT 100 ms 980.600000000 MHz</p> <p>Start 30 MHz 97 MHz/ Stop 1 GHz</p> <p>Date: 19.AUG.2023 11:39:38</p>	<p>Ref 30 dBm *Att 25 dB *RBW 1 MHz Marker 1 [T1] -31.90 dBm            *VSW 3 MHz *SWT 150 ms 24.970000000 GHz</p> <p>Start 1 GHz 2.55 GHz/ Stop 26.5 GHz</p> <p>Date: 19.AUG.2023 11:39:49</p>
Middle	<p>Ref 0 dBm *Att 30 dB *RBW 100 kHz Marker 1 [T1] -46.89 dBm            *VSW 300 kHz *SWT 100 ms 225.940000000 MHz</p> <p>Start 30 MHz 97 MHz/ Stop 1 GHz</p> <p>Date: 19.AUG.2023 11:40:03</p>	<p>Ref 30 dBm *Att 25 dB *RBW 1 MHz Marker 1 [T1] -32.05 dBm            *VSW 3 MHz *SWT 150 ms 25.429000000 GHz</p> <p>Start 1 GHz 2.55 GHz/ Stop 26.5 GHz</p> <p>Date: 19.AUG.2023 11:40:14</p>
Highest	<p>Ref 0 dBm *Att 30 dB *RBW 100 kHz Marker 1 [T1] -46.14 dBm            *VSW 300 kHz *SWT 100 ms 941.800000000 MHz</p> <p>Start 30 MHz 97 MHz/ Stop 1 GHz</p> <p>Date: 19.AUG.2023 11:40:31</p>	<p>Ref 30 dBm *Att 25 dB *RBW 1 MHz Marker 1 [T1] -32.55 dBm            *VSW 3 MHz *SWT 150 ms 26.398000000 GHz</p> <p>Start 1 GHz 2.55 GHz/ Stop 26.5 GHz</p> <p>Date: 19.AUG.2023 11:40:42</p>

Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 5MHz		
QPSK 10MHz		



Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 15MHz	<p>Date: 19.AUG.2023 09:26:38</p>	<p>Date: 19.AUG.2023 09:26:57</p>
QPSK 20MHz	<p>Date: 19.AUG.2023 09:28:31</p>	<p>Date: 19.AUG.2023 09:28:50</p>

Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 5MHz	<p>Date: 19.AUG.2023 09:13:14</p>	<p>Date: 19.AUG.2023 09:13:35</p>
16QAM 10MHz	<p>Date: 19.AUG.2023 09:14:36</p>	<p>Date: 19.AUG.2023 09:25:49</p>

Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 15MHz	<p>Ref 30 dBm *Att 25 dB *SWP 50                      *RBW 300 kHz Marker 1 [T1] -36.34 dBm                      *VBW 1 MHz                      *SWT 35 ms 2.496000000 GHz</p> <p>Center 2.496 GHz 3 MHz/ Span 30 MHz</p> <p>Date: 19.AUG.2023 09:26:47</p>	<p>Ref 30 dBm *Att 25 dB *SWP 50                      *RBW 300 kHz Marker 1 [T1] -34.82 dBm                      *VBW 1 MHz                      *SWT 35 ms 2.690000000 GHz</p> <p>Center 2.69 GHz 3 MHz/ Span 30 MHz</p> <p>Date: 19.AUG.2023 09:27:06</p>
16QAM 20MHz	<p>Ref 30 dBm *Att 25 dB *SWP 50                      *RBW 300 kHz Marker 1 [T1] -38.11 dBm                      *VBW 1 MHz                      *SWT 35 ms 2.496000000 GHz</p> <p>Center 2.496 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 19.AUG.2023 09:28:40</p>	<p>Ref 30 dBm *Att 25 dB *SWP 50                      *RBW 300 kHz Marker 1 [T1] -35.53 dBm                      *VBW 1 MHz                      *SWT 35 ms 2.690000000 GHz</p> <p>Center 2.69 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 19.AUG.2023 09:28:58</p>

**4.14 Antenna Port Test Data and Results for LTE Band 66**

Serial Number:	29K3-1	Test Date:	2023/8/17-2023/8/21
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su	Test Result:	<b>Pass</b>

**Environmental Conditions:**

Temperature: (°C)	25.2-25.9	Relative Humidity: (%)	56-61	ATM Pressure: (kPa)	99.7-100
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
Weinschel	Power Splitter	1515	RA914	Each time	N/A
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A

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

**Test Frequency for Each Mode:**

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
1.4MHz	1710.7	1745	1779.3
3MHz	1711.5	1745	1778.5
5MHz	1712.5	1745	1777.5
10MHz	1715	1745	1775
15MHz	1717.5	1745	1772.5
20MHz	1720	1745	1770

**Test Data:**

<b>FCC§2.1046;§ 27.50(d)(4)</b>						
<b>RF Output Power:</b>						
Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP(dBm)	EIRP Limit(dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	23.16	22.75	23.57	23.7	30
	RB1#3	23.35	22.94	23.22		
	RB1#5	23.15	22.76	23.05		
	RB3#0	23.23	22.81	23.1		
	RB3#3	23.22	22.78	23.14		
	RB6#0	22.23	21.83	22.16		
1.4MHz 16QAM	RB1#0	22.11	21.74	22.16	22.46	30
	RB1#3	22.33	21.9	22.27		
	RB1#5	22.14	21.72	22.16		
	RB3#0	22.21	21.95	22.07		
	RB3#3	22.18	21.94	22.1		
	RB6#0	21.16	20.83	21.18		
3MHz QPSK	RB1#0	23.34	22.97	23.45	23.58	30
	RB1#8	23.3	22.97	23.06		
	RB1#14	23.31	22.97	23.08		
	RB6#0	22.27	21.93	22.01		
	RB6#9	22.26	21.95	22.03		
	RB15#0	22.25	21.92	22.04		
3MHz 16QAM	RB1#0	22.26	22.4	22.19	22.53	30
	RB1#8	22.26	22.39	22.15		
	RB1#14	22.22	22.39	22.15		
	RB6#0	21.19	20.97	21.05		
	RB6#9	21.23	20.97	21.1		
	RB15#0	21.31	20.94	21.05		
5MHz QPSK	RB1#0	23.18	23.35	22.73	23.61	30
	RB1#13	23.33	23.48	22.36		
	RB1#24	23.18	23.37	22.26		
	RB15#0	22.27	22.44	21.33		
	RB15#10	22.26	22.48	21.35		
	RB25#0	22.23	22.4	21.31		
5MHz 16QAM	RB1#0	22.22	22.19	21.49	22.48	30
	RB1#13	22.35	22.33	21.59		
	RB1#24	22.22	22.21	21.53		
	RB15#0	21.3	21.42	20.35		
	RB15#10	21.28	21.46	20.37		
	RB25#0	21.26	21.42	20.34		
10MHz QPSK	RB1#0	23.26	23.47	22.31	23.6	30
	RB1#25	23.36	23.17	22.49		
	RB1#49	23.25	23.07	22.39		
	RB25#0	22.08	22.13	21.47		

	RB25#25	22.04	22.38	21.4		
	RB50#0	22.13	22.24	21.45		
10MHz 16QAM	RB1#0	21.81	22.56	21.44	22.77	30
	RB1#25	22.08	22.64	21.63		
	RB1#49	21.74	22.6	21.48		
	RB25#0	21.04	21.22	20.54		
	RB25#25	21.31	21.55	20.48		
	RB50#0	21.12	21.44	20.52		
15MHz QPSK	RB1#0	23.19	23.25	22.24	23.55	30
	RB1#38	23.3	23.42	22.3		
	RB1#74	23.15	23.34	22.3		
	RB36#0	22.21	22.36	21.42		
	RB36#39	22.3	22.53	21.44		
15MHz 16QAM	RB1#0	22.47	22.74	21.29	22.87	30
	RB1#38	22.6	22.7	21.44		
	RB1#74	22.5	22.61	21.39		
	RB36#0	21.21	21.39	20.36		
	RB36#39	21.28	21.45	20.46		
	RB75#0	21.24	21.42	20.46		
20MHz QPSK	RB1#0	22.96	22.34	22.19	23.44	30
	RB1#50	23.31	22.73	22.69		
	RB1#99	23	22.42	22.39		
	RB50#0	22.24	21.73	21.65		
	RB50#50	22.17	21.67	21.46		
	RB100#0	22.13	21.83	21.57		
20MHz 16QAM	RB1#0	22.2	21.62	21.34	22.7	30
	RB1#50	22.57	22.02	21.89		
	RB1#99	22.01	21.66	21.52		
	RB50#0	20.97	20.79	20.66		
	RB50#50	21.01	20.9	20.5		
	RB100#0	21.12	21.06	20.63		

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

**Result:**

**Pass**

<b>Peak-to-average Ratio(PAR)</b>					
Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	9.62	9.46	8.46	13
	RB100#0	6.47	6.54	6.47	13
20MHz 16QAM	RB1#0	8.53	8.49	8.56	13
	RB100#0	7.21	7.05	7.18	13
				<b>Result:</b>	<b>Pass</b>

<b>FCC §2.1049, §27.53: Occupied Bandwidth</b>						
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	1.11	1.104	1.104	1.332	1.344	1.314
1.4MHz 16QAM	1.104	1.11	1.098	1.338	1.32	1.29
3MHz QPSK	2.687	2.687	2.687	2.904	2.88	2.88
3MHz 16QAM	2.687	2.687	2.687	2.892	2.892	2.88
5MHz QPSK	4.54	4.54	4.54	5.24	5.28	5.16
5MHz 16QAM	4.54	4.52	4.56	5.3	5.18	5.18
10MHz QPSK	8.96	9	8.96	9.84	10.12	9.84
10MHz 16QAM	8.96	8.96	8.96	9.88	9.8	10
15MHz QPSK	13.56	13.68	13.56	15.18	15.24	15.36
15MHz 16QAM	13.56	13.56	13.62	15.18	15.24	15.24
20MHz QPSK	18.08	18	18.08	20	19.84	19.84
20MHz 16QAM	18	18	18.08	19.6	19.68	19.92

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	3.8	1710.939	1710.00	1779.047	1780
	-20	3.8	1710.933	1710.00	1779.059	1780
	-10	3.8	1710.937	1710.00	1779.055	1780
	0	3.8	1710.938	1710.00	1779.057	1780
	10	3.8	1710.950	1710.00	1779.050	1780
	20	3.8	1710.960	1710.00	1779.040	1780
	30	3.8	1710.949	1710.00	1779.054	1780
	40	3.8	1710.949	1710.00	1779.056	1780
	50	3.8	1710.934	1710.00	1779.051	1780
Frequency Stability vs. Voltage	20	3.6	1710.949	1710.00	1779.062	1780
	20	4.35	1710.960	1710.00	1779.052	1780
					<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	3.8	1711.037	1710.00	1779.063	1780
	-20	3.8	1711.030	1710.00	1779.065	1780
	-10	3.8	1711.034	1710.00	1779.047	1780
	0	3.8	1711.014	1710.00	1779.058	1780
	10	3.8	1711.028	1710.00	1779.055	1780
	20	3.8	1711.040	1710.00	1779.040	1780
	30	3.8	1711.023	1710.00	1779.061	1780
	40	3.8	1711.028	1710.00	1779.052	1780
	50	3.8	1711.019	1710.00	1779.041	1780
Frequency Stability vs. Voltage	20	3.6	1711.033	1710.00	1779.065	1780
	20	4.35	1711.019	1710.00	1779.063	1780
					<b>Result:</b>	<b>Pass</b>



**Test Plots** (Note: The 14.5 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):

**Occupied Bandwidth**

Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest	<p>Ref 30 dBm *Att 25 dB *RBW 30 kHz *VBW 100 kHz SWT 15 ms Delta 1 [T1] 0.30 dB                      OSW 1.332000000 MHz Marker 2 [T1] -1.83 dBm                      D1 14.8 dBm 1.710030000 GHz Temp 1 [T1 OSW]                      D2 11.19 dBm 1.710140000 GHz Temp 2 [T1 OSW]                      D3 11.19 dBm 1.711250000 GHz</p> <p>Center 1.7107 GHz 300 kHz/ Span 3 MHz                      Date: 18.AUG.2023 22:10:42</p>	<p>Ref 30 dBm *Att 25 dB *RBW 30 kHz *VBW 100 kHz SWT 15 ms Delta 1 [T1] 0.04 dB                      OSW 1.338000000 MHz Marker 1 [T1] -1.30 dBm                      D1 13.5 dBm 1.710040000 GHz Temp 1 [T1 OSW]                      D2 11.23 dBm 1.710140000 GHz Temp 2 [T1 OSW]                      D3 11.23 dBm 1.711250000 GHz</p> <p>Center 1.7107 GHz 300 kHz/ Span 3 MHz                      Date: 18.AUG.2023 22:10:59</p>
Middle	<p>Ref 30 dBm *Att 25 dB *RBW 30 kHz *VBW 100 kHz SWT 15 ms Delta 1 [T1] -0.46 dB                      OSW 1.344000000 MHz Marker 1 [T1] -1.85 dBm                      D1 15.6 dBm 1.744330000 GHz Temp 1 [T1 OSW]                      D2 11.34 dBm 1.744440000 GHz Temp 2 [T1 OSW]                      D3 11.34 dBm 1.745550000 GHz</p> <p>Center 1.745 GHz 300 kHz/ Span 3 MHz                      Date: 18.AUG.2023 22:11:13</p>	<p>Ref 30 dBm *Att 25 dB *RBW 30 kHz *VBW 100 kHz SWT 15 ms Delta 1 [T1] -0.13 dB                      OSW 1.320000000 MHz Marker 1 [T1] -1.73 dBm                      D1 15.1 dBm 1.744330000 GHz Temp 1 [T1 OSW]                      D2 11.09 dBm 1.744440000 GHz Temp 2 [T1 OSW]                      D3 11.09 dBm 1.745550000 GHz</p> <p>Center 1.745 GHz 300 kHz/ Span 3 MHz                      Date: 18.AUG.2023 22:11:26</p>
Highest	<p>Ref 30 dBm *Att 25 dB *RBW 30 kHz *VBW 100 kHz SWT 15 ms Delta 1 [T1] -0.43 dB                      OSW 1.314000000 MHz Marker 1 [T1] -1.89 dBm                      D1 15.8 dBm 1.778640000 GHz Temp 1 [T1 OSW]                      D2 11.20 dBm 1.778740000 GHz Temp 2 [T1 OSW]                      D3 11.20 dBm 1.779850000 GHz</p> <p>Center 1.7793 GHz 300 kHz/ Span 3 MHz                      Date: 18.AUG.2023 22:11:44</p>	<p>Ref 30 dBm *Att 25 dB *RBW 30 kHz *VBW 100 kHz SWT 15 ms Delta 1 [T1] 0.04 dB                      OSW 1.290000000 MHz Marker 1 [T1] -1.07 dBm                      D1 15.0 dBm 1.778650000 GHz Temp 1 [T1 OSW]                      D2 11.18 dBm 1.778750000 GHz Temp 2 [T1 OSW]                      D3 11.18 dBm 1.779850000 GHz</p> <p>Center 1.7793 GHz 300 kHz/ Span 3 MHz                      Date: 18.AUG.2023 22:12:01</p>

### Occupied Bandwidth

Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest	<p>Date: 18.AUG.2023 22:12:56</p>	<p>Date: 18.AUG.2023 22:13:13</p>
Middle	<p>Date: 18.AUG.2023 22:13:30</p>	<p>Date: 18.AUG.2023 22:13:47</p>
Highest	<p>Date: 18.AUG.2023 22:14:05</p>	<p>Date: 18.AUG.2023 22:14:21</p>

Occupied Bandwidth

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

### Occupied Bandwidth

Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	<p>Date: 18.AUG.2023 22:17:40</p>	<p>Date: 18.AUG.2023 22:17:57</p>
Middle	<p>Date: 18.AUG.2023 22:18:14</p>	<p>Date: 18.AUG.2023 22:18:27</p>
Highest	<p>Date: 18.AUG.2023 22:18:45</p>	<p>Date: 18.AUG.2023 22:19:05</p>

Occupied Bandwidth

Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 [T1] -1.44 dB *VBW 1 MHz *SWT 2.5 ms 15.180000000 MHz</p> <p>OSW 3.560000000 MHz Marker 1 [T1] -1.01 dBm</p> <p>D1 14.84 dBm</p> <p>Temp 1 [T1 OSW] 1.709940000 GHz</p> <p>Temp 2 [T1 OSW] 1.710720000 GHz</p> <p>Temp 3 [T1 OSW] 1.724280000 GHz</p> <p>Center 1.7175 GHz 3 MHz/ Span 30 MHz</p> <p>Date: 18.AUG.2023 22:19:44</p>	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 [T1] -1.02 dB *VBW 1 MHz *SWT 2.5 ms 15.180000000 MHz</p> <p>OSW 3.560000000 MHz Marker 1 [T1] -1.13 dBm</p> <p>D1 13.9 dBm</p> <p>Temp 1 [T1 OSW] 1.709940000 GHz</p> <p>Temp 2 [T1 OSW] 1.710720000 GHz</p> <p>Temp 3 [T1 OSW] 1.724280000 GHz</p> <p>Center 1.7175 GHz 3 MHz/ Span 30 MHz</p> <p>Date: 18.AUG.2023 22:19:58</p>
Middle	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 [T1] -1.31 dB *VBW 1 MHz *SWT 2.5 ms 15.240000000 MHz</p> <p>OSW 3.680000000 MHz Marker 1 [T1] -1.08 dBm</p> <p>D1 16.2 dBm</p> <p>Temp 1 [T1 OSW] 1.737440000 GHz</p> <p>Temp 2 [T1 OSW] 1.738220000 GHz</p> <p>Temp 3 [T1 OSW] 1.751900000 GHz</p> <p>Center 1.745 GHz 3 MHz/ Span 30 MHz</p> <p>Date: 18.AUG.2023 22:20:15</p>	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 [T1] -1.01 dB *VBW 1 MHz *SWT 2.5 ms 15.240000000 MHz</p> <p>OSW 3.560000000 MHz Marker 1 [T1] -1.75 dBm</p> <p>D1 14.7 dBm</p> <p>Temp 1 [T1 OSW] 1.737440000 GHz</p> <p>Temp 2 [T1 OSW] 1.738220000 GHz</p> <p>Temp 3 [T1 OSW] 1.751840000 GHz</p> <p>Center 1.745 GHz 3 MHz/ Span 30 MHz</p> <p>Date: 18.AUG.2023 22:20:32</p>
Highest	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 [T1] -1.19 dB *VBW 1 MHz *SWT 2.5 ms 15.360000000 MHz</p> <p>OSW 3.560000000 MHz Marker 1 [T1] -1.41 dBm</p> <p>D1 15.6 dBm</p> <p>Temp 1 [T1 OSW] 1.764880000 GHz</p> <p>Temp 2 [T1 OSW] 1.765720000 GHz</p> <p>Temp 3 [T1 OSW] 1.779280000 GHz</p> <p>Center 1.7725 GHz 3 MHz/ Span 30 MHz</p> <p>Date: 18.AUG.2023 22:20:46</p>	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 [T1] -0.60 dB *VBW 1 MHz *SWT 2.5 ms 15.240000000 MHz</p> <p>OSW 3.620000000 MHz Marker 1 [T1] -1.63 dBm</p> <p>D1 14.7 dBm</p> <p>Temp 1 [T1 OSW] 1.764880000 GHz</p> <p>Temp 2 [T1 OSW] 1.765720000 GHz</p> <p>Temp 3 [T1 OSW] 1.779340000 GHz</p> <p>Center 1.7725 GHz 3 MHz/ Span 30 MHz</p> <p>Date: 18.AUG.2023 22:21:03</p>

### Occupied Bandwidth

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

### Spurious Emissions at Antenna Terminal

Channel	1.4MHz Bandwidth QPSK	
Lowest	<p>Ref 10 dBm    *Att 30 dB                      *RBW 100 kHz    Marker 1 [T1]    -46.78 dBm                      *VBW 300 kHz    *SWT 100 ms    870.02000000 MHz</p> <p>Date: 19.AUG.2023 11:42:16</p>	<p>Ref 30 dBm    *Att 25 dB                      *RBW 1 MHz    Marker 1 [T1]    -34.15 dBm                      *VBW 3 MHz    *SWT 110 ms    3.128000000 GHz</p> <p>Date: 19.AUG.2023 11:42:27</p>
Middle	<p>Ref 10 dBm    *Att 30 dB                      *RBW 100 kHz    Marker 1 [T1]    -46.27 dBm                      *VBW 300 kHz    *SWT 100 ms    381.14000000 MHz</p> <p>Date: 19.AUG.2023 11:42:44</p>	<p>Ref 30 dBm    *Att 25 dB                      *RBW 1 MHz    Marker 1 [T1]    -32.96 dBm                      *VBW 3 MHz    *SWT 110 ms    3.128000000 GHz</p> <p>Date: 19.AUG.2023 11:42:55</p>
Highest	<p>Ref 10 dBm    *Att 30 dB                      *RBW 100 kHz    Marker 1 [T1]    -45.77 dBm                      *VBW 300 kHz    *SWT 100 ms    794.36000000 MHz</p> <p>Date: 19.AUG.2023 11:43:12</p>	<p>Ref 30 dBm    *Att 25 dB                      *RBW 1 MHz    Marker 1 [T1]    -32.64 dBm                      *VBW 3 MHz    *SWT 110 ms    3.128000000 GHz</p> <p>Date: 19.AUG.2023 11:43:23</p>

### Spurious Emissions at Antenna Terminal

Channel	3MHz Bandwidth QPSK	
Lowest	<p>Ref 10 dBm    *Att 30 dB            *RBW 100 kHz    Marker 1 [T1]    -46.45 dBm            *VBW 300 kHz    *VMW 300 kHz            SWT 100 ms    745.86000000 MHz</p> <p>Date: 19.AUG.2023 11:44:15</p>	<p>Ref 30 dBm    *Att 25 dB            *RBW 1 MHz    Marker 1 [T1]    -33.87 dBm            *VBW 3 MHz    *VMW 3 MHz            SWT 110 ms    3.128000000 GHz</p> <p>Date: 19.AUG.2023 11:44:26</p>
Middle	<p>Ref 10 dBm    *Att 30 dB            *RBW 100 kHz    Marker 1 [T1]    -46.44 dBm            *VBW 300 kHz    *VMW 300 kHz            SWT 100 ms    949.56000000 MHz</p> <p>Date: 19.AUG.2023 11:44:40</p>	<p>Ref 30 dBm    *Att 25 dB            *RBW 1 MHz    Marker 1 [T1]    -34.11 dBm            *VBW 3 MHz    *VMW 3 MHz            SWT 110 ms    3.128000000 GHz</p> <p>Date: 19.AUG.2023 11:44:51</p>
Highest	<p>Ref 10 dBm    *Att 30 dB            *RBW 100 kHz    Marker 1 [T1]    -46.57 dBm            *VBW 300 kHz    *VMW 300 kHz            SWT 100 ms    218.18000000 MHz</p> <p>Date: 19.AUG.2023 11:45:05</p>	<p>Ref 30 dBm    *Att 25 dB            *RBW 1 MHz    Marker 1 [T1]    -32.79 dBm            *VBW 3 MHz    *VMW 3 MHz            SWT 110 ms    3.128000000 GHz</p> <p>Date: 19.AUG.2023 11:45:16</p>

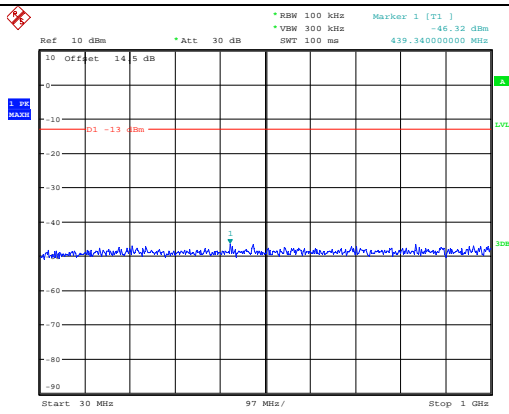


### Spurious Emissions at Antenna Terminal

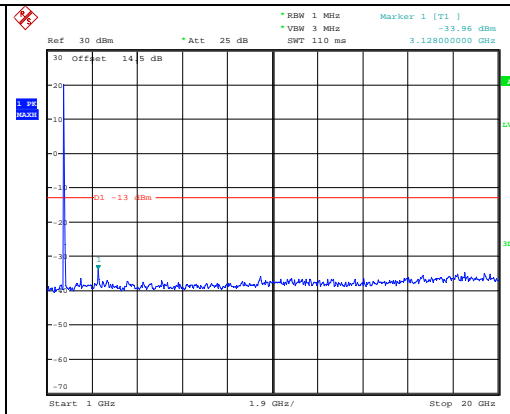
Channel

5MHz Bandwidth QPSK

Lowest

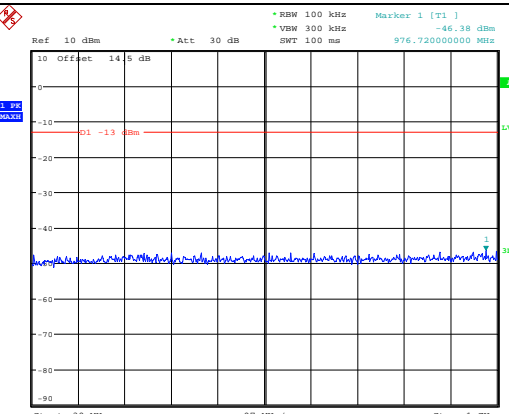


Date: 19.AUG.2023 11:46:08

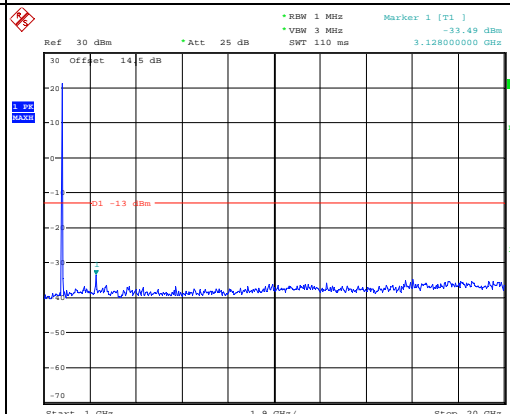


Date: 19.AUG.2023 11:46:19

Middle

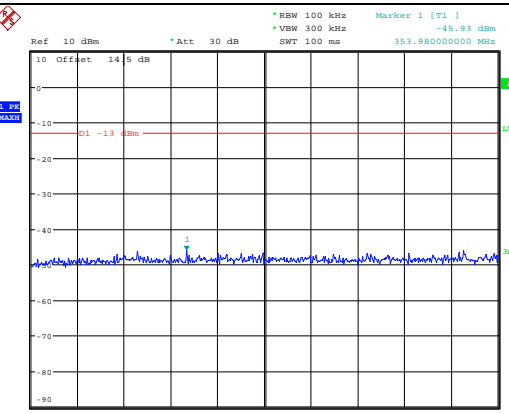


Date: 19.AUG.2023 11:46:33

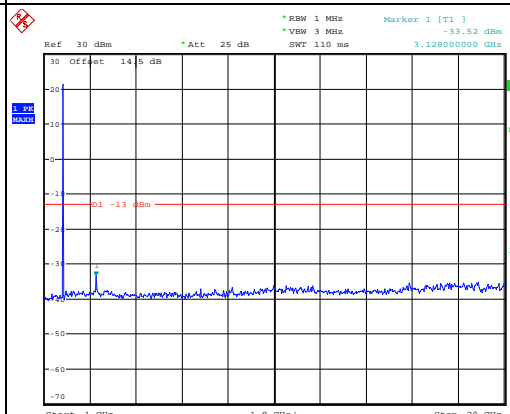


Date: 19.AUG.2023 11:46:47

Highest



Date: 19.AUG.2023 11:47:04



Date: 19.AUG.2023 11:47:15

Spurious Emissions at Antenna Terminal

Channel	10MHz Bandwidth QPSK	
Lowest	<p>Ref 10 dBm    Att 30 dB    RBW 100 kHz    Marker 1 [T1]    -46.79 dBm            VSW 300 kHz    SWT 100 ms    668.128000000 MHz</p> <p>Date: 19.AUG.2023 11:49:19</p>	<p>Ref 30 dBm    Att 25 dB    RBW 1 MHz    Marker 1 [T1]    -34.14 dBm            VSW 3 MHz    SWT 110 ms    3.128000000 GHz</p> <p>Date: 19.AUG.2023 11:49:30</p>
Middle	<p>Ref 10 dBm    Att 30 dB    RBW 100 kHz    Marker 1 [T1]    -46.43 dBm            VSW 300 kHz    SWT 100 ms    965.080000000 MHz</p> <p>Date: 19.AUG.2023 11:49:44</p>	<p>Ref 30 dBm    Att 25 dB    RBW 1 MHz    Marker 1 [T1]    -34.07 dBm            VSW 3 MHz    SWT 110 ms    3.128000000 GHz</p> <p>Date: 19.AUG.2023 11:49:58</p>
Highest	<p>Ref 10 dBm    Att 30 dB    RBW 100 kHz    Marker 1 [T1]    -46.65 dBm            VSW 300 kHz    SWT 100 ms    761.980000000 MHz</p> <p>Date: 19.AUG.2023 11:50:12</p>	<p>Ref 30 dBm    Att 25 dB    RBW 1 MHz    Marker 1 [T1]    -34.54 dBm            VSW 3 MHz    SWT 110 ms    3.128000000 GHz</p> <p>Date: 19.AUG.2023 11:50:23</p>

### Spurious Emissions at Antenna Terminal

Channel	15MHz Bandwidth QPSK	
Lowest	<p>Date: 19.AUG.2023 11:51:16</p>	<p>Date: 19.AUG.2023 11:51:27</p>
Middle	<p>Date: 19.AUG.2023 11:51:41</p>	<p>Date: 19.AUG.2023 11:51:52</p>
Highest	<p>Date: 19.AUG.2023 11:52:06</p>	<p>Date: 19.AUG.2023 11:52:17</p>

Spurious Emissions at Antenna Terminal

Channel	20MHz Bandwidth QPSK	
Lowest	<p>Ref 10 dBm    Att 30 dB    RBW 100 kHz    Marker 1 [T1]    -46.34 dBm            VSW 300 kHz    SWT 100 ms    976.720000000 MHz</p> <p>Date: 19.AUG.2023 11:54:05</p>	<p>Ref 30 dBm    Att 25 dB    RBW 1 MHz    Marker 1 [T1]    -34.11 dBm            VSW 3 MHz    SWT 110 ms    3.128000000 GHz</p> <p>Date: 19.AUG.2023 11:54:16</p>
Middle	<p>Ref 10 dBm    Att 30 dB    RBW 100 kHz    Marker 1 [T1]    -46.25 dBm            VSW 300 kHz    SWT 100 ms    499.480000000 MHz</p> <p>Date: 19.AUG.2023 11:54:30</p>	<p>Ref 30 dBm    Att 25 dB    RBW 1 MHz    Marker 1 [T1]    -33.46 dBm            VSW 3 MHz    SWT 110 ms    3.128000000 GHz</p> <p>Date: 19.AUG.2023 11:54:41</p>
Highest	<p>Ref 10 dBm    Att 30 dB    RBW 100 kHz    Marker 1 [T1]    -46.82 dBm            VSW 300 kHz    SWT 100 ms    33.880000000 MHz</p> <p>Date: 19.AUG.2023 11:54:54</p>	<p>Ref 30 dBm    Att 25 dB    RBW 1 MHz    Marker 1 [T1]    -33.50 dBm            VSW 3 MHz    SWT 110 ms    3.128000000 GHz</p> <p>Date: 19.AUG.2023 11:55:06</p>

Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 1.4MHz	<p>Ref 30 dBm    Att 25 dB    RBW 30 kHz    Marker 1 [T1]    -24.46 dBm            VSW 100 kHz    SWT 35 ms    1.709988000 GHz</p> <p>Center 1.71 GHz    300 kHz/    Span 3 MHz</p> <p>Date: 19.AUG.2023 09:40:16</p>	<p>Ref 30 dBm    Att 25 dB    RBW 30 kHz    Marker 1 [T1]    -26.24 dBm            VSW 100 kHz    SWT 35 ms    1.780000000 GHz</p> <p>Center 1.78 GHz    300 kHz/    Span 3 MHz</p> <p>Date: 19.AUG.2023 09:40:33</p>
QPSK 3MHz	<p>Ref 30 dBm    Att 25 dB    RBW 30 kHz    Marker 1 [T1]    -28.13 dBm            VSW 100 kHz    SWT 35 ms    1.709988000 GHz</p> <p>Center 1.71 GHz    600 kHz/    Span 6 MHz</p> <p>Date: 19.AUG.2023 09:41:29</p>	<p>Ref 30 dBm    Att 25 dB    RBW 30 kHz    Marker 1 [T1]    -32.56 dBm            VSW 100 kHz    SWT 35 ms    1.780012000 GHz</p> <p>Center 1.78 GHz    600 kHz/    Span 6 MHz</p> <p>Date: 19.AUG.2023 09:41:47</p>
QPSK 5MHz	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Marker 1 [T1]    -24.13 dBm            VSW 900 kHz    SWT 35 ms    1.710000000 GHz</p> <p>Center 1.71 GHz    1 MHz/    Span 10 MHz</p> <p>Date: 19.AUG.2023 09:43:19</p>	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Marker 1 [T1]    -23.34 dBm            VSW 900 kHz    SWT 35 ms    1.780000000 GHz</p> <p>Center 1.78 GHz    1 MHz/    Span 10 MHz</p> <p>Date: 19.AUG.2023 09:43:38</p>

Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 10MHz	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Marker 1 [T1]    -27.11 dBm  VSW 1 MHz    SWT 35 ms    1.710000000 GHz</p> <p>30 Offset 14.5 dB  -20  -10  0  -10  -20  -30  -40  -50  -60  -70</p> <p>Center 1.71 GHz    2 MHz/    Span 20 MHz</p> <p>Date: 19.AUG.2023 09:45:05</p>	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Marker 1 [T1]    -25.72 dBm  VSW 1 MHz    SWT 35 ms    1.780000000 GHz</p> <p>30 Offset 14.5 dB  -20  -10  0  -10  -20  -30  -40  -50  -60  -70</p> <p>Center 1.78 GHz    2 MHz/    Span 20 MHz</p> <p>Date: 19.AUG.2023 09:45:26</p>
QPSK 15MHz	<p>Ref 30 dBm    Att 25 dB    RBW 300 kHz    Marker 1 [T1]    -27.11 dBm  VSW 1 MHz    SWT 35 ms    1.710000000 GHz</p> <p>30 Offset 14.5 dB  -20  -10  0  -10  -20  -30  -40  -50  -60  -70</p> <p>Center 1.71 GHz    3 MHz/    Span 30 MHz</p> <p>Date: 19.AUG.2023 09:46:46</p>	<p>Ref 30 dBm    Att 25 dB    RBW 300 kHz    Marker 1 [T1]    -25.72 dBm  VSW 1 MHz    SWT 35 ms    1.780000000 GHz</p> <p>30 Offset 14.5 dB  -20  -10  0  -10  -20  -30  -40  -50  -60  -70</p> <p>Center 1.78 GHz    3 MHz/    Span 30 MHz</p> <p>Date: 19.AUG.2023 09:47:05</p>
QPSK 20MHz	<p>Ref 30 dBm    Att 25 dB    RBW 300 kHz    Marker 1 [T1]    -31.01 dBm  VSW 1 MHz    SWT 35 ms    1.710000000 GHz</p> <p>30 Offset 14.5 dB  -20  -10  0  -10  -20  -30  -40  -50  -60  -70</p> <p>Center 1.71 GHz    4 MHz/    Span 40 MHz</p> <p>Date: 19.AUG.2023 09:55:36</p>	<p>Ref 30 dBm    Att 25 dB    RBW 300 kHz    Marker 1 [T1]    -27.85 dBm  VSW 1 MHz    SWT 35 ms    1.780000000 GHz</p> <p>30 Offset 14.5 dB  -20  -10  0  -10  -20  -30  -40  -50  -60  -70</p> <p>Center 1.78 GHz    4 MHz/    Span 40 MHz</p> <p>Date: 19.AUG.2023 09:55:56</p>

Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 1.4MHz	<p>Date: 19.AUG.2023 09:40:25</p>	<p>Date: 19.AUG.2023 09:40:41</p>
16QAM 3MHz	<p>Date: 19.AUG.2023 09:41:38</p>	<p>Date: 19.AUG.2023 09:41:55</p>
16QAM 5MH	<p>Date: 19.AUG.2023 09:43:28</p>	<p>Date: 19.AUG.2023 09:43:47</p>

Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 10MHz	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Marker 1 [T1]    -12.43 dBm            VBW 900 kHz    SWT 35 ms    1.71000000 GHz</p> <p>Center: 1.71 GHz    2 MHz/    Span 20 MHz</p> <p>Date: 19.AUG.2023 09:45:15</p>	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Marker 1 [T1]    -31.62 dBm            VBW 900 kHz    SWT 35 ms    1.78000000 GHz</p> <p>Center: 1.78 GHz    2 MHz/    Span 20 MHz</p> <p>Date: 19.AUG.2023 09:45:36</p>
16QAM 15MHz	<p>Ref 30 dBm    Att 25 dB    RBW 300 kHz    Marker 1 [T1]    -28.98 dBm            VBW 1 MHz    SWT 35 ms    1.71000000 GHz</p> <p>Center: 1.71 GHz    3 MHz/    Span 30 MHz</p> <p>Date: 19.AUG.2023 09:46:55</p>	<p>Ref 30 dBm    Att 25 dB    RBW 300 kHz    Marker 1 [T1]    -27.79 dBm            VBW 1 MHz    SWT 35 ms    1.78000000 GHz</p> <p>Center: 1.78 GHz    3 MHz/    Span 30 MHz</p> <p>Date: 19.AUG.2023 09:47:14</p>
16QAM 20MH	<p>Ref 30 dBm    Att 25 dB    RBW 300 kHz    Marker 1 [T1]    -33.09 dBm            VBW 1 MHz    SWT 35 ms    1.71000000 GHz</p> <p>Center: 1.71 GHz    4 MHz/    Span 40 MHz</p> <p>Date: 19.AUG.2023 09:55:46</p>	<p>Ref 30 dBm    Att 25 dB    RBW 300 kHz    Marker 1 [T1]    -30.43 dBm            VBW 1 MHz    SWT 35 ms    1.78000000 GHz</p> <p>Center: 1.78 GHz    4 MHz/    Span 40 MHz</p> <p>Date: 19.AUG.2023 09:56:05</p>



**4.15 Antenna Port Test Data and Results for LTE Band 71**

Serial Number:	29K3-1	Test Date:	2023/8/17-2023/8/21
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su	Test Result:	<b>Pass</b>

**Environmental Conditions:**

Temperature: (°C)	25.2-25.9	Relative Humidity: (%)	56-61	ATM Pressure: (kPa)	99.7-100
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
Weinschel	Power Splitter	1515	RA914	Each time	N/A
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A

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

**Test Frequency for Each Mode:**

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	665.5	680.5	695.5
10MHz	668	680.5	693
15MHz	670.5	680.5	690.5
20MHz	673	680.5	688

**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	25.97	25.81	25.8	21.45	34.77
	RB1#13	26.01	25.88	25.93		
	RB1#24	25.92	25.8	25.72		
	RB15#0	24.87	24.78	24.82		
	RB15#10	25.03	24.98	24.87		
	RB25#0	24.96	24.85	24.79		
5MHz 16QAM	RB1#0	25.04	24.9	25.08	20.57	34.77
	RB1#13	25.04	24.94	25.13		
	RB1#24	24.96	24.87	24.99		
	RB15#0	23.89	23.83	23.82		
	RB15#10	24.05	24.05	23.86		
	RB25#0	23.99	23.92	23.83		
10MHz QPSK	RB1#0	26.11	25.95	26.32	21.86	34.77
	RB1#25	26.18	26.07	26.42		
	RB1#49	25.97	25.88	26.25		
	RB25#0	24.92	24.83	25.45		
	RB25#25	24.94	25.07	25.37		
	RB50#0	24.9	24.93	25.32		
10MHz 16QAM	RB1#0	25.63	25.09	25.31	21.13	34.77
	RB1#25	25.69	25.19	25.41		
	RB1#49	25.5	24.99	25.21		
	RB25#0	23.95	23.86	24.44		
	RB25#25	24	24.11	24.44		
	RB50#0	23.92	23.99	24.34		
15MHz QPSK	RB1#0	26.52	26.38	26.22	21.96	34.77
	RB1#38	26.52	26.36	26.28		
	RB1#74	26.32	26.25	26.16		
	RB36#0	25.54	25.35	25.39		
	RB36#39	25.54	25.47	25.37		
	RB75#0	25.51	25.36	25.44		
15MHz 16QAM	RB1#0	25.8	25.41	25.36	21.25	34.77
	RB1#38	25.81	25.44	25.38		
	RB1#74	25.63	25.33	25.25		
	RB36#0	24.46	24.35	24.38		
	RB36#39	24.47	24.44	24.25		
	RB75#0	24.48	24.39	24.34		
20MHz QPSK	RB1#0	26.31	26.19	26.1	22.05	34.77
	RB1#50	26.61	26.46	26.46		
	RB1#99	26.07	26.04	25.99		

	RB50#0	25.5	25.22	25.23		
	RB50#50	25.53	25.33	25.3		
	RB100#0	25.53	25.31	25.27		
20MHz 16QAM	RB1#0	25.77	25.45	25.33	21.51	34.77
	RB1#50	26.07	25.76	25.7		
	RB1#99	25.61	25.31	25.25		
	RB50#0	24.5	24.19	24.23		
	RB50#50	24.49	24.36	24.3		
	RB100#0	24.52	24.31	24.28		

Note:

ERP= Conducted Power(dBm) - Lc(dB) + G<sub>T</sub>(dBd)G<sub>T</sub>(dBd)=G<sub>T</sub>(dBi)-2.15

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	
20MHz QPSK	RB1#0	9.94	9.65	9.9	13
	RB100#0	6.31	6.73	6.35	13
20MHz 16QAM	RB1#0	8.94	9.23	9.1	13
	RB100#0	7.08	7.31	7.12	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	4.54	4.54	4.54	5.16	5.2	5.22
5MHz 16QAM	4.52	4.54	4.54	5.16	5.12	5.18
10MHz QPSK	8.96	9	9	9.96	9.92	9.88
10MHz 16QAM	8.96	9	9	9.8	9.8	9.8
15MHz QPSK	13.5	13.62	13.56	15.18	15.18	15.06
15MHz 16QAM	13.5	13.56	13.56	15	15.06	15.12
20MHz QPSK	18	18	18	19.52	19.6	19.76
20MHz 16QAM	18	18	17.84	19.68	19.84	19.68

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

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

<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	3.8	664.031	663.00	697.047	698.00
	-20	3.8	664.019	663.00	697.056	698.00
	-10	3.8	664.024	663.00	697.043	698.00
	0	3.8	664.020	663.00	697.067	698.00
	10	3.8	664.011	663.00	697.042	698.00
	20	3.8	664.040	663.00	697.040	698.00
	30	3.8	664.017	663.00	697.048	698.00
	40	3.8	664.032	663.00	697.058	698.00
	50	3.8	664.016	663.00	697.043	698.00
Frequency Stability vs. Voltage	20	3.6	664.016	663.00	697.060	698.00
	20	4.35	664.037	663.00	697.052	698.00
					<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	3.8	664.020	663.00	696.961	698.00
	-20	3.8	664.033	663.00	696.970	698.00
	-10	3.8	664.037	663.00	696.988	698.00
	0	3.8	664.039	663.00	696.972	698.00
	10	3.8	664.033	663.00	696.966	698.00
	20	3.8	664.040	663.00	696.960	698.00
	30	3.8	664.021	663.00	696.983	698.00
	40	3.8	664.034	663.00	696.963	698.00
	50	3.8	664.012	663.00	696.986	698.00
Frequency Stability vs. Voltage	20	3.6	664.024	663.00	696.964	698.00
	20	4.35	664.018	663.00	696.960	698.00
					<b>Result:</b>	<b>Pass</b>

**Test Plots**(Note: The 14.5 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):

<b>Occupied Bandwidth</b>		
<b>Channel</b>	<b>5MHz Bandwidth QPSK</b>	<b>5MHz Bandwidth 16QAM</b>
<b>Lowest</b>		
<b>Middle</b>		
<b>Highest</b>		

### Occupied Bandwidth

Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] -0.39 dB            *VSW 300 kHz            SWT 10 ms 9.960000000 MHz            OSW 9.960000000 MHz            Marker 1 [T1] -11.25 dBm            663.000000000 MHz            663.520000000 MHz            Temp 2 [T1 OSW]            672.480000000 MHz            Center 668 MHz 2 MHz/ Span 20 MHz            Date: 19.AUG.2023 13:06:02</p>	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] -0.54 dB            *VSW 300 kHz            SWT 10 ms 9.900000000 MHz            OSW 9.900000000 MHz            Marker 1 [T1] -11.52 dBm            663.120000000 MHz            663.520000000 MHz            Temp 2 [T1 OSW]            672.480000000 MHz            Center 668 MHz 2 MHz/ Span 20 MHz            Date: 19.AUG.2023 13:06:20</p>
Middle	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] -0.76 dB            *VSW 300 kHz            SWT 10 ms 9.920000000 MHz            OSW 9.920000000 MHz            Marker 1 [T1] -11.34 dBm            675.540000000 MHz            676.020000000 MHz            Temp 2 [T1 OSW]            685.020000000 MHz            Center 680.5 MHz 2 MHz/ Span 20 MHz            Date: 19.AUG.2023 13:07:10</p>	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] -0.84 dB            *VSW 300 kHz            SWT 10 ms 9.800000000 MHz            OSW 9.800000000 MHz            Marker 1 [T1] -11.83 dBm            675.620000000 MHz            676.020000000 MHz            Temp 2 [T1 OSW]            685.020000000 MHz            Center 680.5 MHz 2 MHz/ Span 20 MHz            Date: 19.AUG.2023 13:07:27</p>
Highest	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] -0.86 dB            *VSW 300 kHz            SWT 10 ms 9.880000000 MHz            OSW 9.880000000 MHz            Marker 1 [T1] -11.32 dBm            688.000000000 MHz            688.480000000 MHz            Temp 2 [T1 OSW]            697.480000000 MHz            Center 693 MHz 2 MHz/ Span 20 MHz            Date: 19.AUG.2023 13:08:34</p>	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Delta 1 [T1] -1.32 dB            *VSW 300 kHz            SWT 10 ms 9.800000000 MHz            OSW 9.800000000 MHz            Marker 1 [T1] -11.67 dBm            688.040000000 MHz            688.480000000 MHz            Temp 2 [T1 OSW]            697.480000000 MHz            Center 693 MHz 2 MHz/ Span 20 MHz            Date: 19.AUG.2023 13:08:52</p>

Occupied Bandwidth

Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest	<p>Date: 19.AUG.2023 13:10:00</p>	<p>Date: 19.AUG.2023 13:10:17</p>
Middle	<p>Date: 19.AUG.2023 13:11:04</p>	<p>Date: 19.AUG.2023 13:11:22</p>
Highest	<p>Date: 19.AUG.2023 13:13:47</p>	<p>Date: 19.AUG.2023 13:14:02</p>

Occupied Bandwidth

Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 (T1)          *VBW 1 MHz *SWT 2.5 ms          Center 673 MHz 4 MHz/ Span 40 MHz          Date: 19.AUG.2023 13:46:39</p>	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 (T1)          *VBW 1 MHz *SWT 2.5 ms          Center 673 MHz 4 MHz/ Span 40 MHz          Date: 19.AUG.2023 13:46:57</p>
Middle	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 (T1)          *VBW 1 MHz *SWT 2.5 ms          Center 680.5 MHz 4 MHz/ Span 40 MHz          Date: 19.AUG.2023 13:50:28</p>	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 (T1)          *VBW 1 MHz *SWT 2.5 ms          Center 680.5 MHz 4 MHz/ Span 40 MHz          Date: 19.AUG.2023 13:50:47</p>
Highest	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 (T1)          *VBW 1 MHz *SWT 2.5 ms          Center 688 MHz 4 MHz/ Span 40 MHz          Date: 19.AUG.2023 13:54:44</p>	<p>Ref 30 dBm *Att 25 dB *RBW 300 kHz Delta 1 (T1)          *VBW 1 MHz *SWT 2.5 ms          Center 688 MHz 4 MHz/ Span 40 MHz          Date: 19.AUG.2023 13:55:02</p>

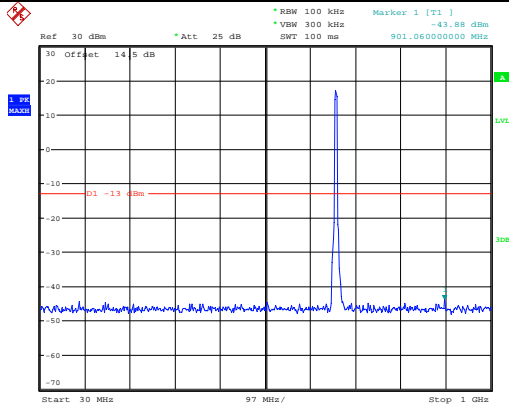


Spurious Emissions at Antenna Terminal

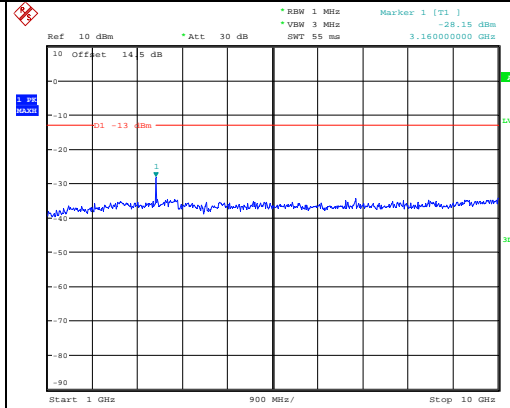
Channel

5MHz Bandwidth QPSK

Lowest

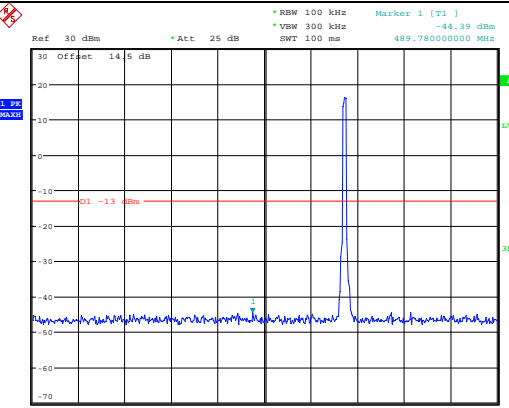


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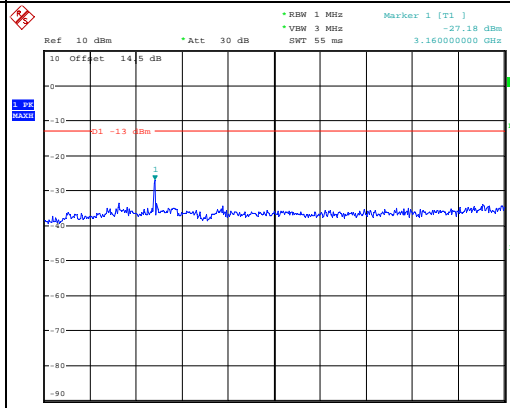


Date: 19.AUG.2023 14:41:01

Middle

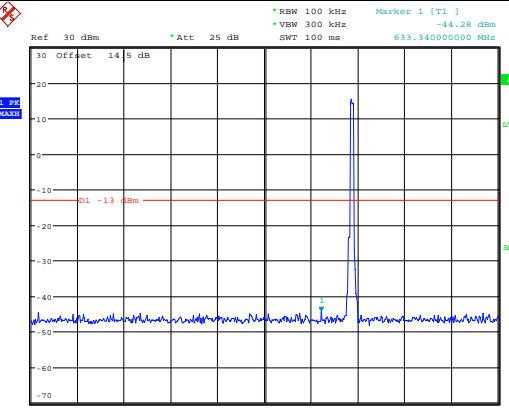


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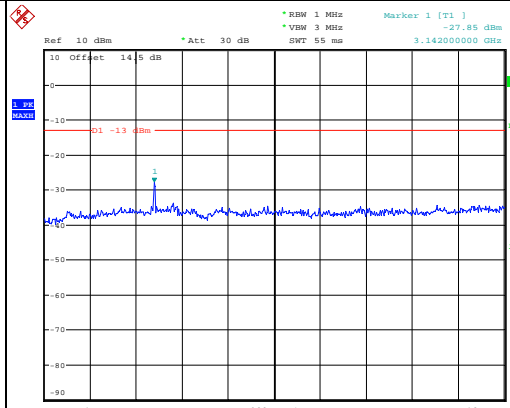


Date: 19.AUG.2023 14:41:50

Highest



Date: 19.AUG.2023 14:42:28



Date: 19.AUG.2023 14:42:39

Spurious Emissions at Antenna Terminal

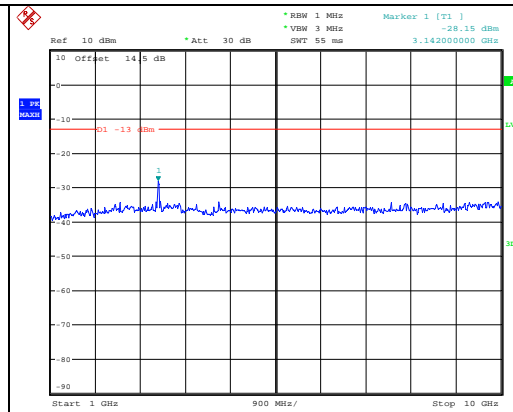
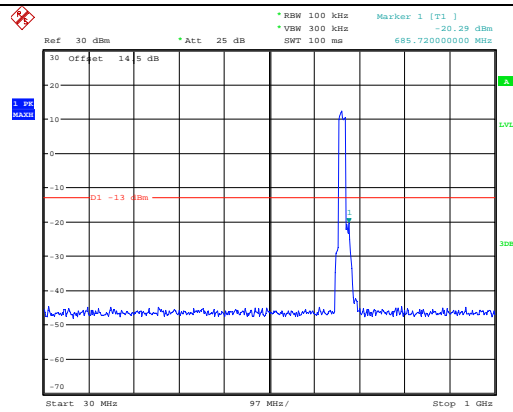
Channel	10MHz Bandwidth QPSK	
Lowest	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Marker 1 [T1]    -43.71 dBm            * VSW 300 kHz    * VSW 300 kHz            * SWT 100 ms    * SWT 100 ms    433.52000000 MHz</p> <p>Start 30 MHz    97 MHz/    Stop 1 GHz</p> <p>Date: 19.AUG.2023 14:43:24</p>	<p>Ref 10 dBm    Att 30 dB    RBW 1 MHz    Marker 1 [T1]    -28.93 dBm            * VSW 3 MHz    * VSW 3 MHz            * SWT 55 ms    * SWT 55 ms    3.160000000 GHz</p> <p>Start 1 GHz    900 MHz/    Stop 10 GHz</p> <p>Date: 19.AUG.2023 14:43:36</p>
Middle	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Marker 1 [T1]    -43.75 dBm            * VSW 300 kHz    * VSW 300 kHz            * SWT 100 ms    * SWT 100 ms    547.48000000 MHz</p> <p>Start 30 MHz    97 MHz/    Stop 1 GHz</p> <p>Date: 19.AUG.2023 14:44:17</p>	<p>Ref 10 dBm    Att 30 dB    RBW 1 MHz    Marker 1 [T1]    -28.64 dBm            * VSW 3 MHz    * VSW 3 MHz            * SWT 55 ms    * SWT 55 ms    3.142000000 GHz</p> <p>Start 1 GHz    900 MHz/    Stop 10 GHz</p> <p>Date: 19.AUG.2023 14:44:28</p>
Highest	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Marker 1 [T1]    -44.66 dBm            * VSW 300 kHz    * VSW 300 kHz            * SWT 100 ms    * SWT 100 ms    540.22000000 MHz</p> <p>Start 30 MHz    97 MHz/    Stop 1 GHz</p> <p>Date: 19.AUG.2023 14:45:10</p>	<p>Ref 10 dBm    Att 30 dB    RBW 1 MHz    Marker 1 [T1]    -27.85 dBm            * VSW 3 MHz    * VSW 3 MHz            * SWT 55 ms    * SWT 55 ms    3.160000000 GHz</p> <p>Start 1 GHz    900 MHz/    Stop 10 GHz</p> <p>Date: 19.AUG.2023 14:45:21</p>

Spurious Emissions at Antenna Terminal

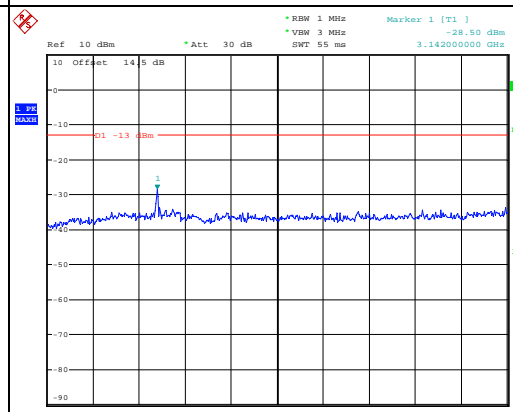
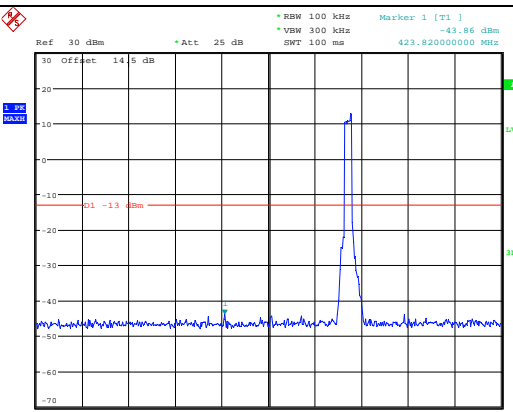
Channel

15MHz Bandwidth QPSK

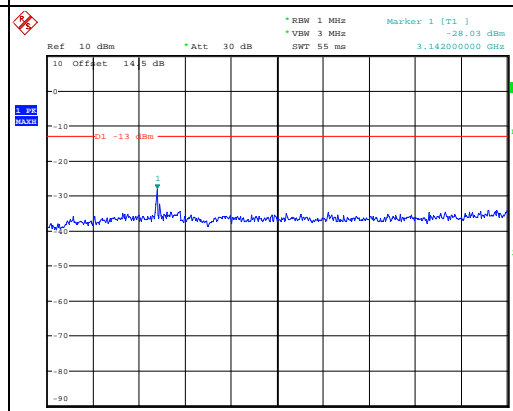
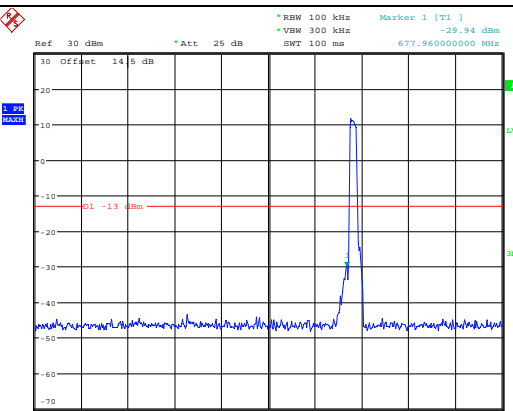
Lowest



Middle



Highest



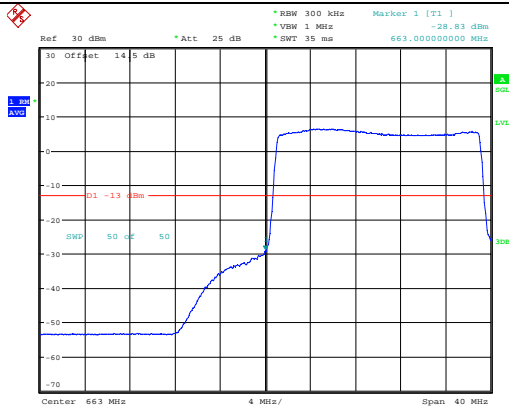
Spurious Emissions at Antenna Terminal

Channel	20MHz Bandwidth QPSK	
Lowest	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Marker 1 [T1]    -44.18 dBm            VBW 300 kHz    SWT 100 ms    621.700000000 MHz</p> <p>Date: 19.AUG.2023 14:54:39</p>	<p>Ref 10 dBm    Att 30 dB    RBW 1 MHz    Marker 1 [T1]    -28.59 dBm            VBW 3 MHz    SWT 55 ms    3.142000000 GHz</p> <p>Date: 19.AUG.2023 14:54:53</p>
Middle	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Marker 1 [T1]    -43.99 dBm            VBW 300 kHz    SWT 100 ms    132.820000000 MHz</p> <p>Date: 19.AUG.2023 14:57:16</p>	<p>Ref 10 dBm    Att 30 dB    RBW 1 MHz    Marker 1 [T1]    -29.11 dBm            VBW 3 MHz    SWT 55 ms    3.142000000 GHz</p> <p>Date: 19.AUG.2023 14:57:28</p>
Highest	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Marker 1 [T1]    -44.34 dBm            VBW 300 kHz    SWT 100 ms    518.880000000 MHz</p> <p>Date: 19.AUG.2023 14:58:20</p>	<p>Ref 10 dBm    Att 30 dB    RBW 1 MHz    Marker 1 [T1]    -27.42 dBm            VBW 3 MHz    SWT 55 ms    3.142000000 GHz</p> <p>Date: 19.AUG.2023 14:58:32</p>

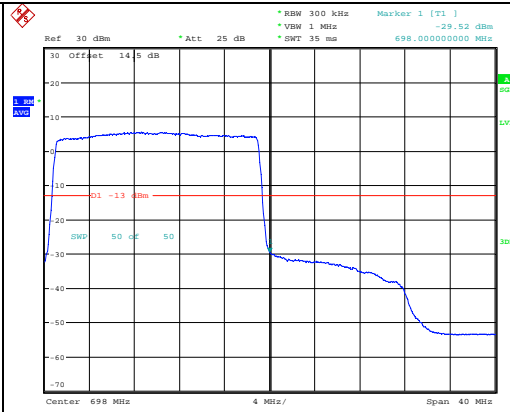
Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 5MHz	<p>Date: 19.AUG.2023 14:25:59</p>	<p>Date: 19.AUG.2023 14:27:57</p>
QPSK 10MHz	<p>Date: 19.AUG.2023 14:28:41</p>	<p>Date: 19.AUG.2023 14:29:28</p>
QPSK 15MHz	<p>Date: 19.AUG.2023 14:30:17</p>	<p>Date: 19.AUG.2023 14:31:07</p>

QPSK  
20MHz



Date: 19.AUG.2023 14:21:54

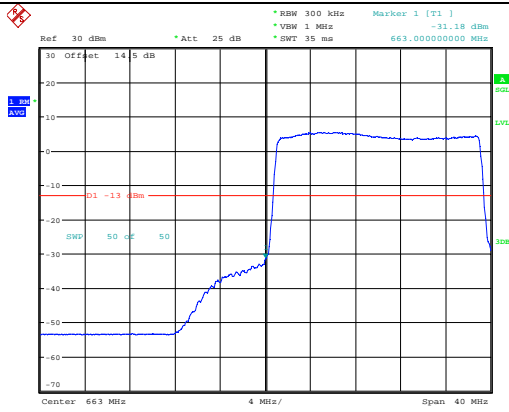


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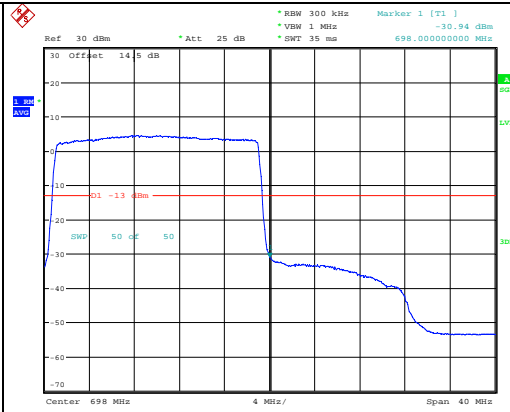
Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 5MHz	<p>Date: 19.AUG.2023 14:26:07</p>	<p>Date: 19.AUG.2023 14:28:06</p>
16QAM 10MHz	<p>Date: 19.AUG.2023 14:28:49</p>	<p>Date: 19.AUG.2023 14:29:37</p>
16QAM 15MHz	<p>Date: 19.AUG.2023 14:30:24</p>	<p>Date: 19.AUG.2023 14:31:14</p>

16QAM  
20MH



Date: 19.AUG.2023 14:32:01



Date: 19.AUG.2023 14:37:57



**4.16 Radiated Spurious Emissions**

Serial Number:	29K3-2	Test Date:	2023/8/13~2023/8/18
Test Site:	966-2,966-1	Test Mode:	Transmitting
Tester:	Carl Xue, Mack Huang	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	25~27.4	Relative Humidity: (%)	55~69	ATM Pressure: (kPa)	99.7~100.1
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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	2023/3/31	2024/3/30
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2023/7/16	2024/7/15
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2023/7/16	2024/7/15
Sonoma	Amplifier	310N	186165	2023/7/16	2024/7/15
EMCO	Adjustable Dipole Antenna	3121C	9109-756	N/A	N/A
MICRO-COAX	Coaxial Cable	UFA210B-0-0720-300300	99G1448	2022/7/16	2024/7/15
Agilent	Signal Generator	E8247C	MY43321352	2022/11/18	2023/11/17
ETS-Lindgren	Horn Antenna	3115	9912-5985	2020/10/13	2023/10/12
R&S	Spectrum Analyzer	FSV40	101591	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2023/8/6	2024/8/5
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2023/8/6	2024/8/5
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2022/11/9	2023/11/8
AH	Double Ridge Guide Horn Antenna	SAS-571	1396	2021/10/18	2024/10/17
MICRO-COAX	Coaxial Cable	UFA210B-0-0720-300300	99G1448	2022/7/16	2024/7/15
PASTERNAK	Horn Antenna	PE9852/2F-20	112002	2021/2/5	2024/2/4
PASTERNAK	Horn Antenna	PE9852/2F-20	112001	2021/2/5	2024/2/4
Quinstar	Preamplifier	QLW-18405536-JO	15964001005	2022/9/16	2023/9/15
PASTERNAK	Horn Antenna	PE9850/2F-20	072001	2021/2/5	2024/2/4
PASTERNAK	Horn Antenna	PE9850/2F-20	072002	2021/2/5	2024/2/4
MICRO-COAX	Coaxial Cable	UFB142A-1-2362-200200	235772-001	2023/8/6	2024/8/5

\* **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:**

Please refer to the below table.

After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

**Cellular Band (30MHz-10GHz)**

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)			
Frequency:			824.2	MHz				
707.23	H	20.93	-52.24	0.00	0.54	-52.78	-13.00	39.78
727.33	V	20.91	-48.41	0.00	0.52	-48.93	-13.00	35.93
1648.400	H	43.21	-61.12	8.68	0.80	-53.24	-13.00	40.24
1648.400	V	44.43	-59.98	8.68	0.80	-52.10	-13.00	39.10
2472.600	H	46.56	-54.22	9.38	1.00	-45.84	-13.00	32.84
2472.600	V	47.58	-53.15	9.38	1.00	-44.77	-13.00	31.77
3296.800	H	36.35	-60.33	10.32	1.15	-51.16	-13.00	38.16
3296.800	V	36.14	-60.30	10.32	1.15	-51.13	-13.00	38.13
Frequency:			836.6	MHz				
714.70	H	21.19	-51.83	0.00	0.50	-52.33	-13.00	39.33
583.29	V	20.73	-50.97	0.00	0.46	-51.43	-13.00	38.43
1673.200	H	43.89	-60.42	8.71	0.85	-52.56	-13.00	39.56
1673.200	V	44.62	-59.79	8.71	0.85	-51.93	-13.00	38.93
2509.800	H	45.43	-55.18	9.42	1.01	-46.77	-13.00	33.77
2509.800	V	47.79	-52.83	9.42	1.01	-44.42	-13.00	31.42
3346.400	H	36.01	-61.16	10.34	1.16	-51.98	-13.00	38.98
3346.400	V	35.66	-61.37	10.34	1.16	-52.19	-13.00	39.19
Frequency:			848.8	MHz				
567.17	H	21.02	-53.49	0.00	0.46	-53.95	-13.00	40.95
571.16	V	20.81	-50.88	0.00	0.46	-51.34	-13.00	38.34
1697.600	H	44.49	-59.80	8.74	0.90	-51.96	-13.00	38.96
1697.600	V	43.85	-60.57	8.74	0.90	-52.73	-13.00	39.73
2546.400	H	44.69	-55.64	9.47	1.01	-47.18	-13.00	34.18
2546.400	V	48.61	-51.67	9.47	1.01	-43.21	-13.00	30.21
3395.200	H	35.78	-61.91	10.36	1.19	-52.74	-13.00	39.74
3395.200	V	36.02	-61.64	10.36	1.19	-52.47	-13.00	39.47

**PCS Band (30MHz-20GHz)**

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 1900 Frequency:1850.2MHz								
338.40	H	34.13	-76.01	0.00	0.36	-76.37	-13.00	63.37
44.90	V	38.14	-58.03	-19.93	0.12	-78.08	-13.00	65.08
3700.400	H	36.11	-61.21	10.60	1.25	-51.86	-13.00	38.86
3700.400	V	39.86	-57.44	10.60	1.25	-48.09	-13.00	35.09
5550.600	H	52.09	-41.17	11.44	1.49	-31.22	-13.00	18.22
5550.600	V	51.23	-41.87	11.44	1.49	-31.92	-13.00	18.92
GSM 1900 Frequency:1880MHz								
340.78	H	33.80	-76.30	0.00	0.36	-76.66	-13.00	63.66
46.34	V	37.83	-59.79	-18.49	0.12	-78.40	-13.00	65.40
3760.000	H	37.06	-59.35	10.66	1.24	-49.93	-13.00	36.93
3760.000	V	39.69	-56.60	10.66	1.24	-47.18	-13.00	34.18
5640.000	H	53.66	-39.79	11.33	1.54	-30.00	-13.00	17.00
5640.000	V	51.33	-42.00	11.33	1.54	-32.21	-13.00	19.21
GSM 1900 Frequency:1909.8MHz								
336.01	H	33.91	-76.27	0.00	0.35	-76.62	-13.00	63.62
46.01	V	37.76	-59.54	-18.81	0.12	-78.47	-13.00	65.47
3819.600	H	40.14	-55.72	10.72	1.29	-46.29	-13.00	33.29
3819.600	V	37.29	-58.43	10.72	1.29	-49.00	-13.00	36.00
5729.400	H	51.71	-41.77	11.22	1.59	-32.14	-13.00	19.14
5729.400	V	51.82	-41.54	11.22	1.59	-31.91	-13.00	18.91

**WCDMA 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)			
WCDMA Band II, Frequency:1852.4 MHz								
345.59	H	33.95	-76.08	0.00	0.37	-76.45	-13.00	63.45
44.58	V	38.01	-57.75	-20.35	0.12	-78.22	-13.00	65.22
3704.800	H	36.07	-61.19	10.60	1.25	-51.84	-13.00	38.84
3704.800	V	35.67	-61.56	10.60	1.25	-52.21	-13.00	39.21
5557.200	H	40.77	-52.51	11.43	1.49	-42.57	-13.00	29.57
5557.200	V	38.41	-54.72	11.43	1.49	-44.78	-13.00	31.78
WCDMA Band II, Frequency:1880 MHz								
339.58	H	34.26	-75.86	0.00	0.36	-76.22	-13.00	63.22
45.21	V	38.12	-58.39	-19.59	0.12	-78.10	-13.00	65.10
3760.000	H	35.78	-60.63	10.66	1.24	-51.21	-13.00	38.21
3760.000	V	36.10	-60.19	10.66	1.24	-50.77	-13.00	37.77
5640.000	H	40.63	-52.82	11.33	1.54	-43.03	-13.00	30.03
5640.000	V	38.68	-54.65	11.33	1.54	-44.86	-13.00	31.86
WCDMA Band II, Frequency:1907.6MHz								
344.37	H	34.13	-75.92	0.00	0.37	-76.29	-13.00	63.29
46.50	V	37.82	-59.96	-18.33	0.12	-78.41	-13.00	65.41
3815.200	H	36.41	-59.44	10.72	1.29	-50.01	-13.00	37.01
3815.200	V	36.23	-59.46	10.72	1.29	-50.03	-13.00	37.03
5722.800	H	41.02	-52.47	11.23	1.58	-42.82	-13.00	29.82
5722.800	V	39.11	-54.24	11.23	1.58	-44.59	-13.00	31.59

**WCDMA 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)			
Frequency:			1712.4	MHz				
336.05	H	34.83	-75.35	0.00	0.35	-75.70	-13.00	62.70
46.33	V	38.17	-59.44	-18.50	0.12	-78.06	-13.00	65.06
3424.800	H	36.58	-61.19	10.37	1.17	-51.99	-13.00	38.99
3424.800	V	37.12	-60.62	10.37	1.17	-51.42	-13.00	38.42
5137.200	H	36.22	-57.40	11.28	1.46	-47.58	-13.00	34.58
5137.200	V	35.64	-57.86	11.28	1.46	-48.04	-13.00	35.04
Frequency:			1732.6	MHz				
339.52	H	34.35	-75.77	0.00	0.36	-76.13	-13.00	63.13
43.50	V	37.96	-56.40	-21.78	0.12	-78.30	-13.00	65.30
3465.200	H	36.12	-61.69	10.39	1.15	-52.45	-13.00	39.45
3465.200	V	36.33	-61.44	10.39	1.15	-52.20	-13.00	39.20
5197.800	H	37.05	-57.08	11.32	1.44	-47.20	-13.00	34.20
5197.800	V	36.39	-57.59	11.32	1.44	-47.71	-13.00	34.71
Frequency:			1752.6	MHz				
343.18	H	34.67	-75.40	0.00	0.37	-75.77	-13.00	62.77
45.69	V	37.85	-59.13	-19.12	0.12	-78.37	-13.00	65.37
3505.200	H	36.78	-61.05	10.41	1.18	-51.82	-13.00	38.82
3505.200	V	35.12	-62.65	10.41	1.18	-53.42	-13.00	40.42
5257.800	H	36.69	-57.04	11.35	1.47	-47.16	-13.00	34.16
5257.800	V	36.44	-57.07	11.35	1.47	-47.19	-13.00	34.19

**WCDMA Band 5(30MHz-10GHz):**

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								
616.92	H	21.02	-52.75	0.00	0.48	-53.23	-13.00	40.23
727.35	V	20.69	-48.63	0.00	0.52	-49.15	-13.00	36.15
1652.800	H	35.78	-68.55	8.68	0.81	-60.68	-13.00	47.68
1652.800	V	36.05	-68.36	8.68	0.81	-60.49	-13.00	47.49
2479.200	H	36.41	-64.35	9.39	1.01	-55.97	-13.00	42.97
2479.200	V	35.28	-65.45	9.39	1.01	-57.07	-13.00	44.07
3305.600	H	36.33	-60.40	10.32	1.15	-51.23	-13.00	38.23
3305.600	V	36.89	-59.61	10.32	1.15	-50.44	-13.00	37.44
WCDMA Band 5 Frequency:836.6MHz								
712.20	H	21.28	-51.79	0.00	0.51	-52.30	-13.00	39.30
724.79	V	20.50	-48.88	0.00	0.51	-49.39	-13.00	36.39
1673.200	H	36.77	-67.54	8.71	0.85	-59.68	-13.00	46.68
1673.200	V	35.64	-68.77	8.71	0.85	-60.91	-13.00	47.91
2509.800	H	36.23	-64.38	9.42	1.01	-55.97	-13.00	42.97
2509.800	V	36.52	-64.10	9.42	1.01	-55.69	-13.00	42.69
3346.400	H	36.10	-61.07	10.34	1.16	-51.89	-13.00	38.89
3346.400	V	36.89	-60.14	10.34	1.16	-50.96	-13.00	37.96
WCDMA Band 5 Frequency:846.6MHz								
675.75	H	20.63	-52.82	0.00	0.50	-53.32	-13.00	40.32
585.34	V	20.43	-51.28	0.00	0.46	-51.74	-13.00	38.74
1693.200	H	35.93	-68.37	8.73	0.89	-60.53	-13.00	47.53
1693.200	V	36.01	-68.41	8.73	0.89	-60.57	-13.00	47.57
2539.800	H	35.56	-64.82	9.46	1.01	-56.37	-13.00	43.37
2539.800	V	35.78	-64.56	9.46	1.01	-56.11	-13.00	43.11
3386.400	H	36.37	-61.22	10.35	1.18	-52.05	-13.00	39.05
3386.400	V	36.44	-61.10	10.35	1.18	-51.93	-13.00	38.93

**LTE Bands:**

(The Worst modulation and bandwidth were below)

**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)			
QPSK, 1.4MHz, Frequency:1850.7 MHz								
63.75	H	34.60	-69.24	-8.31	0.14	-77.69	-13.00	64.69
44.60	V	37.92	-57.86	-20.33	0.12	-78.31	-13.00	65.31
3701.400	H	36.57	-60.74	10.60	1.25	-51.39	-13.00	38.39
3701.400	V	36.33	-60.96	10.60	1.25	-51.61	-13.00	38.61
5552.100	H	49.83	-43.44	11.44	1.49	-33.49	-13.00	20.49
5552.100	V	48.34	-44.76	11.44	1.49	-34.81	-13.00	21.81
QPSK, 1.4MHz, Frequency:1880 MHz								
63.98	H	34.89	-68.95	-8.19	0.14	-77.28	-13.00	64.28
66.49	V	38.29	-65.51	-6.86	0.15	-72.52	-13.00	59.52
3760.000	H	36.44	-59.97	10.66	1.24	-50.55	-13.00	37.55
3760.000	V	37.45	-58.84	10.66	1.24	-49.42	-13.00	36.42
5640.000	H	50.60	-42.85	11.33	1.54	-33.06	-13.00	20.06
5640.000	V	49.91	-43.42	11.33	1.54	-33.63	-13.00	20.63
QPSK, 1.4MHz, Frequency:1909.3 MHz								
188.87	H	34.39	-78.28	0.00	0.26	-78.54	-13.00	65.54
66.96	V	38.25	-65.39	-6.61	0.15	-72.15	-13.00	59.15
3818.600	H	36.45	-59.41	10.72	1.29	-49.98	-13.00	36.98
3818.600	V	36.12	-59.59	10.72	1.29	-50.16	-13.00	37.16
5727.900	H	51.48	-42.00	11.23	1.59	-32.36	-13.00	19.36
5727.900	V	50.57	-42.79	11.23	1.59	-33.15	-13.00	20.15

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

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)			
1.4MHz QPSK, Frequency:			1710.7	MHz				
192.42	H	33.23	-79.51	0.00	0.26	-79.77	-13.00	66.77
44.58	V	37.20	-58.56	-20.35	0.12	-79.03	-13.00	66.03
3421.400	H	36.45	-61.31	10.37	1.17	-52.11	-13.00	39.11
3421.400	V	36.66	-61.07	10.37	1.17	-51.87	-13.00	38.87
5132.100	H	44.70	-48.87	11.28	1.47	-39.06	-13.00	26.06
5132.100	V	46.04	-47.42	11.28	1.47	-37.61	-13.00	24.61
1.4MHz QPSK, Frequency:			1732.5	MHz				
189.74	H	33.71	-78.97	0.00	0.26	-79.23	-13.00	66.23
45.21	V	37.82	-58.69	-19.59	0.12	-78.40	-13.00	65.40
3465.000	H	36.02	-61.79	10.39	1.15	-52.55	-13.00	39.55
3465.000	V	36.02	-61.75	10.39	1.15	-52.51	-13.00	39.51
5197.500	H	47.12	-47.01	11.32	1.44	-37.13	-13.00	24.13
5197.500	V	45.38	-48.60	11.32	1.44	-38.72	-13.00	25.72
1.4MHz QPSK, Frequency:			1754.3	MHz				
193.77	H	33.48	-79.29	0.00	0.26	-79.55	-13.00	66.55
66.24	V	37.58	-66.31	-6.99	0.15	-73.45	-13.00	60.45
3508.600	H	36.12	-61.70	10.41	1.19	-52.48	-13.00	39.48
3508.600	V	36.10	-61.66	10.41	1.19	-52.44	-13.00	39.44
5262.900	H	47.22	-46.48	11.36	1.47	-36.59	-13.00	23.59
5262.900	V	45.02	-48.45	11.36	1.47	-38.56	-13.00	25.56



**LTE Band 5(30MHz-10GHz):**

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)			
QPSK, 1.4MHz, Frequency: 824.7 MHz								
714.70	H	20.84	-52.18	0.00	0.50	-52.68	-13.00	39.68
729.88	V	20.93	-48.34	0.00	0.53	-48.87	-13.00	35.87
1649.400	H	36.07	-68.26	8.68	0.80	-60.38	-13.00	47.38
1649.400	V	36.21	-68.20	8.68	0.80	-60.32	-13.00	47.32
2474.100	H	44.89	-55.89	9.38	1.00	-47.51	-13.00	34.51
2474.100	V	44.07	-56.66	9.38	1.00	-48.28	-13.00	35.28
3298.800	H	36.53	-60.15	10.32	1.15	-50.98	-13.00	37.98
3298.800	V	35.78	-60.66	10.32	1.15	-51.49	-13.00	38.49
QPSK, 1.4MHz, Frequency: 836.5 MHz								
699.84	H	20.73	-52.59	0.00	0.55	-53.14	-13.00	40.14
671.03	V	20.76	-49.68	0.00	0.50	-50.18	-13.00	37.18
1673.000	H	35.47	-68.84	8.71	0.85	-60.98	-13.00	47.98
1673.000	V	36.12	-68.29	8.71	0.85	-60.43	-13.00	47.43
2509.500	H	43.46	-57.15	9.42	1.01	-48.74	-13.00	35.74
2509.500	V	44.47	-56.15	9.42	1.01	-47.74	-13.00	34.74
3346.000	H	35.63	-61.53	10.34	1.16	-52.35	-13.00	39.35
3346.000	V	35.02	-62.00	10.34	1.16	-52.82	-13.00	39.82
QPSK, 1.4MHz, Frequency: 848.3 MHz								
557.32	H	20.94	-53.76	0.00	0.48	-54.24	-13.00	41.24
650.20	V	20.85	-49.97	0.00	0.52	-50.49	-13.00	37.49
1696.600	H	36.44	-67.85	8.74	0.89	-60.00	-13.00	47.00
1696.600	V	35.47	-68.95	8.74	0.89	-61.10	-13.00	48.10
2544.900	H	43.52	-56.82	9.47	1.01	-48.36	-13.00	35.36
2544.900	V	44.11	-56.19	9.47	1.01	-47.73	-13.00	34.73
3393.200	H	36.01	-61.66	10.36	1.19	-52.49	-13.00	39.49
3393.200	V	36.85	-60.78	10.36	1.19	-51.61	-13.00	38.61

**LTE Band 12(30MHz-10GHz):**

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)			
QPSK, 1.4MHz, Frequency: 699.7 MHz								
517.80	H	20.42	-55.06	0.00	0.42	-55.48	-13.00	42.48
477.71	V	20.52	-51.94	0.00	0.41	-52.35	-13.00	39.35
1399.400	H	36.57	-67.13	8.22	0.71	-59.62	-13.00	46.62
1399.400	V	36.78	-66.97	8.22	0.71	-59.46	-13.00	46.46
2099.100	H	41.24	-60.64	9.16	0.91	-52.39	-13.00	39.39
2099.100	V	44.32	-57.51	9.16	0.91	-49.26	-13.00	36.26
2798.800	H	36.11	-63.82	9.88	1.04	-54.98	-13.00	41.98
2798.800	V	36.12	-63.68	9.88	1.04	-54.84	-13.00	41.84
QPSK, 1.4MHz, Frequency:707.5 MHz								
559.28	H	20.60	-54.06	0.00	0.47	-54.53	-13.00	41.53
581.25	V	20.20	-51.50	0.00	0.46	-51.96	-13.00	38.96
1415.000	H	41.35	-62.32	8.26	0.72	-54.78	-13.00	41.78
1415.000	V	37.67	-66.05	8.26	0.72	-58.51	-13.00	45.51
2122.500	H	46.60	-55.39	9.17	0.92	-47.14	-13.00	34.14
2122.500	V	48.31	-53.66	9.17	0.92	-45.41	-13.00	32.41
2830.000	H	36.78	-63.02	9.93	1.06	-54.15	-13.00	41.15
2830.000	V	36.63	-63.10	9.93	1.06	-54.23	-13.00	41.23
QPSK, 1.4MHz, Frequency: 715.3 MHz								
606.21	H	20.51	-53.32	0.00	0.49	-53.81	-13.00	40.81
541.92	V	20.65	-50.99	0.00	0.46	-51.45	-13.00	38.45
1430.600	H	42.52	-61.11	8.31	0.73	-53.53	-13.00	40.53
1430.600	V	40.43	-63.26	8.31	0.73	-55.68	-13.00	42.68
2145.900	H	51.60	-50.50	9.19	0.93	-42.24	-13.00	29.24
2145.900	V	53.32	-48.79	9.19	0.93	-40.53	-13.00	27.53
2861.200	H	36.45	-63.20	9.98	1.07	-54.29	-13.00	41.29
2861.200	V	36.32	-63.35	9.98	1.07	-54.44	-13.00	41.44

**LTE Band 17(30MHz-10GHz):**

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)			
QPSK, 5MHz, Frequency: 706.5 MHz								
499.97	H	20.47	-55.36	0.00	0.45	-55.81	-13.00	42.81
647.93	V	20.41	-50.45	0.00	0.52	-50.97	-13.00	37.97
1413.000	H	36.04	-67.63	8.26	0.72	-60.09	-13.00	47.09
1413.000	V	36.02	-67.70	8.26	0.72	-60.16	-13.00	47.16
2119.500	H	35.61	-66.36	9.17	0.92	-58.11	-13.00	45.11
2119.500	V	37.11	-64.84	9.17	0.92	-56.59	-13.00	43.59
2826.000	H	36.22	-63.59	9.92	1.06	-54.73	-13.00	41.73
2826.000	V	36.42	-63.32	9.92	1.06	-54.46	-13.00	41.46
QPSK, 5MHz, Frequency: 710 MHz								
545.73	H	20.56	-54.37	0.00	0.47	-54.84	-13.00	41.84
551.50	V	20.11	-51.55	0.00	0.48	-52.03	-13.00	39.03
1420.000	H	35.78	-67.88	8.28	0.73	-60.33	-13.00	47.33
1420.000	V	36.43	-67.28	8.28	0.73	-59.73	-13.00	46.73
2130.000	H	36.37	-65.65	9.18	0.92	-57.39	-13.00	44.39
2130.000	V	39.55	-62.46	9.18	0.92	-54.20	-13.00	41.20
2840.000	H	36.10	-63.65	9.94	1.06	-54.77	-13.00	41.77
2840.000	V	36.21	-63.50	9.94	1.06	-54.62	-13.00	41.62
QPSK, 5MHz, Frequency: 713.5 MHz								
538.14	H	20.39	-54.69	0.00	0.46	-55.15	-13.00	42.15
577.19	V	20.27	-51.43	0.00	0.46	-51.89	-13.00	38.89
1427.000	H	36.23	-67.41	8.30	0.73	-59.84	-13.00	46.84
1427.000	V	36.24	-67.45	8.30	0.73	-59.88	-13.00	46.88
2140.500	H	39.11	-62.96	9.18	0.93	-54.71	-13.00	41.71
2140.500	V	39.75	-62.33	9.18	0.93	-54.08	-13.00	41.08
2854.000	H	36.01	-63.68	9.97	1.07	-54.78	-13.00	41.78
2854.000	V	36.12	-63.56	9.97	1.07	-54.66	-13.00	41.66

**LTE Band 25 (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)			
1.4MHz QPSK, Frequency:			1850.7 MHz					
191.76	H	33.79	-78.94	0.00	0.26	-79.20	-13.00	66.20
44.60	V	36.96	-58.82	-20.33	0.12	-79.27	-13.00	66.27
3701.400	H	36.11	-61.20	10.60	1.25	-51.85	-13.00	38.85
3701.400	V	36.10	-61.19	10.60	1.25	-51.84	-13.00	38.84
5552.100	H	48.39	-44.88	11.44	1.49	-34.93	-13.00	21.93
5552.100	V	46.56	-46.54	11.44	1.49	-36.59	-13.00	23.59
1.4MHz QPSK, Frequency:			1882.5 MHz					
207.85	H	33.72	-79.01	0.00	0.26	-79.27	-13.00	66.27
66.26	V	37.30	-66.58	-6.98	0.15	-73.71	-13.00	60.71
3765.000	H	36.11	-60.22	10.67	1.25	-50.80	-13.00	37.80
3765.000	V	36.45	-59.76	10.67	1.25	-50.34	-13.00	37.34
5647.500	H	49.08	-44.37	11.32	1.55	-34.60	-13.00	21.60
5647.500	V	48.81	-44.52	11.32	1.55	-34.75	-13.00	21.75
1.4MHz QPSK, Frequency:			1914.3 MHz					
210.04	H	34.05	-78.64	0.00	0.26	-78.90	-13.00	65.90
45.30	V	36.89	-59.71	-19.51	0.12	-79.34	-13.00	66.34
3828.600	H	36.45	-59.45	10.73	1.28	-50.00	-13.00	37.00
3828.600	V	36.02	-59.75	10.73	1.28	-50.30	-13.00	37.30
5742.900	H	47.44	-46.04	11.21	1.60	-36.43	-13.00	23.43
5742.900	V	48.23	-45.13	11.21	1.60	-35.52	-13.00	22.52

**LTE Band 26 for Part 90s (30MHz-10GHz):**

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)			
1.4MHz QPSK, Frequency:			814.7 MHz					
694.95	H	20.81	-52.54	0.00	0.55	-53.09	-13.00	40.09
671.03	V	20.73	-49.71	0.00	0.50	-50.21	-13.00	37.21
1629.400	H	36.59	-67.76	8.66	0.81	-59.91	-13.00	46.91
1629.400	V	35.98	-68.43	8.66	0.81	-60.58	-13.00	47.58
2444.100	H	48.93	-51.96	9.37	1.00	-43.59	-13.00	30.59
2444.100	V	53.66	-47.09	9.37	1.00	-38.72	-13.00	25.72
3258.800	H	36.25	-60.61	10.30	1.17	-51.48	-13.00	38.48
3258.800	V	36.04	-60.57	10.30	1.17	-51.44	-13.00	38.44
1.4MHz QPSK, Frequency:			823.3 MHz					
699.54	H	22.14	-51.18	0.00	0.55	-51.73	-13.00	38.73
674.62	V	21.74	-48.64	0.00	0.50	-49.14	-13.00	36.14
1646.600	H	37.84	-66.49	8.68	0.80	-58.61	-13.00	45.61
1646.600	V	36.54	-67.87	8.68	0.80	-59.99	-13.00	46.99
2469.900	H	51.24	-49.55	9.38	1.00	-41.17	-13.00	28.17
2469.900	V	57.95	-42.78	9.38	1.00	-34.40	-13.00	21.40
3293.200	H	36.24	-60.46	10.32	1.15	-51.29	-13.00	38.29
3293.200	V	37.95	-58.51	10.32	1.15	-49.34	-13.00	36.34

**LTE Band 26 for Part 22H (30MHz-10GHz):**

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)			
1.4MHz QPSK, Frequency:			824.7 MHz					
702.50	H	21.74	-51.53	0.00	0.55	-52.08	-13.00	39.08
679.54	V	22.09	-48.20	0.00	0.52	-48.72	-13.00	35.72
1649.400	H	37.95	-66.38	8.68	0.80	-58.50	-13.00	45.50
1649.400	V	36.11	-68.30	8.68	0.80	-60.42	-13.00	47.42
2474.100	H	50.14	-50.64	9.38	1.00	-42.26	-13.00	29.26
2474.100	V	56.74	-43.99	9.38	1.00	-35.61	-13.00	22.61
3298.800	H	35.94	-60.74	10.32	1.15	-51.57	-13.00	38.57
3298.800	V	36.87	-59.57	10.32	1.15	-50.40	-13.00	37.40
1.4MHz QPSK, Frequency:			831.5 MHz					
724.79	H	21.45	-51.37	0.00	0.51	-51.88	-13.00	38.88
498.22	V	20.87	-50.78	0.00	0.45	-51.23	-13.00	38.23
1663.000	H	36.78	-67.54	8.70	0.83	-59.67	-13.00	46.67
1663.000	V	36.55	-67.86	8.70	0.83	-59.99	-13.00	46.99
2494.500	H	51.97	-48.73	9.40	1.01	-40.34	-13.00	27.34
2494.500	V	56.60	-44.11	9.40	1.01	-35.72	-13.00	22.72
3326.000	H	36.44	-60.51	10.33	1.16	-51.34	-13.00	38.34
3326.000	V	36.13	-60.64	10.33	1.16	-51.47	-13.00	38.47
1.4MHz QPSK, Frequency:			848.3 MHz					
709.71	H	20.93	-52.19	0.00	0.52	-52.71	-13.00	39.71
682.88	V	21.05	-49.18	0.00	0.53	-49.71	-13.00	36.71
1696.600	H	36.45	-67.84	8.74	0.89	-59.99	-13.00	46.99
1696.600	V	36.39	-68.03	8.74	0.89	-60.18	-13.00	47.18
2544.900	H	50.12	-50.22	9.47	1.01	-41.76	-13.00	28.76
2544.900	V	54.11	-46.19	9.47	1.01	-37.73	-13.00	24.73
3393.200	H	36.05	-61.62	10.36	1.19	-52.45	-13.00	39.45
3393.200	V	36.46	-61.17	10.36	1.19	-52.00	-13.00	39.00

**LTE Band 41 (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)			
5MHz QPSK, Frequency:			2498.5	MHz				
91.89	H	33.97	-78.94	0.00	0.18	-79.12	-25.00	54.12
45.05	V	37.69	-58.66	-19.75	0.12	-78.53	-25.00	53.53
4997.000	H	36.78	-56.16	11.20	1.48	-46.44	-25.00	21.44
4997.000	V	37.01	-55.79	11.20	1.48	-46.07	-25.00	21.07
7495.500	H	36.58	-53.21	10.90	1.94	-44.25	-25.00	19.25
7495.500	V	36.99	-53.30	10.90	1.94	-44.34	-25.00	19.34
5MHz QPSK, Frequency:			2593	MHz				
207.85	H	34.06	-78.67	0.00	0.26	-78.93	-25.00	53.93
65.77	V	36.73	-67.32	-7.24	0.15	-74.71	-25.00	49.71
5186.000	H	36.11	-57.92	11.31	1.44	-48.05	-25.00	23.05
5186.000	V	36.33	-57.56	11.31	1.44	-47.69	-25.00	22.69
7779.000	H	36.69	-52.80	10.84	1.99	-43.95	-25.00	18.95
7779.000	V	36.45	-53.49	10.84	1.99	-44.64	-25.00	19.64
5MHz QPSK, Frequency:			2687.5	MHz				
94.42	H	33.95	-78.79	0.00	0.18	-78.97	-25.00	53.97
45.21	V	37.20	-59.31	-19.59	0.12	-79.02	-25.00	54.02
5375.000	H	36.75	-56.76	11.43	1.49	-46.82	-25.00	21.82
5375.000	V	36.12	-57.38	11.43	1.49	-47.44	-25.00	22.44
8062.500	H	36.58	-51.64	10.81	2.12	-42.95	-25.00	17.95
8062.500	V	37.10	-51.62	10.81	2.12	-42.93	-25.00	17.93

**LTE Band 66(30MHz-20GHz):**

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)			
1.4MHz QPSK, Frequency:			1710.7 MHz					
202.65	H	33.80	-79.04	0.00	0.26	-79.30	-13.00	66.30
66.24	V	36.86	-67.03	-6.99	0.15	-74.17	-13.00	61.17
3421.400	H	36.01	-61.75	10.37	1.17	-52.55	-13.00	39.55
3421.400	V	35.78	-61.95	10.37	1.17	-52.75	-13.00	39.75
5132.100	H	44.14	-49.43	11.28	1.47	-39.62	-13.00	26.62
5132.100	V	44.56	-48.90	11.28	1.47	-39.09	-13.00	26.09
1.4MHz QPSK, Frequency:			1745 MHz					
93.76	H	34.16	-78.62	0.00	0.18	-78.80	-13.00	65.80
46.83	V	36.90	-61.20	-18.01	0.12	-79.33	-13.00	66.33
3490.000	H	36.11	-61.73	10.40	1.17	-52.50	-13.00	39.50
3490.000	V	36.66	-61.12	10.40	1.17	-51.89	-13.00	38.89
5235.000	H	45.43	-48.47	11.34	1.46	-38.59	-13.00	25.59
5235.000	V	47.80	-45.91	11.34	1.46	-36.03	-13.00	23.03
1.4MHz QPSK, Frequency:			1779.3 MHz					
204.95	H	34.35	-78.44	0.00	0.26	-78.70	-13.00	65.70
45.53	V	36.71	-60.11	-19.28	0.12	-79.51	-13.00	66.51
3558.600	H	36.74	-60.93	10.46	1.22	-51.69	-13.00	38.69
3558.600	V	36.02	-61.55	10.46	1.22	-52.31	-13.00	39.31
5337.900	H	48.45	-45.02	11.40	1.47	-35.09	-13.00	22.09
5337.900	V	45.35	-47.98	11.40	1.47	-38.05	-13.00	25.05



**LTE Band 71 (30MHz-10GHz):**

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)			
5MHz QPSK, Frequency: 665.5 MHz								
540.03	H	20.72	-54.32	0.00	0.46	-54.78	-13.00	41.78
575.18	V	20.81	-50.88	0.00	0.46	-51.34	-13.00	38.34
1331.000	H	36.44	-66.59	8.03	0.76	-59.32	-13.00	46.32
1331.000	V	35.87	-67.49	8.03	0.76	-60.22	-13.00	47.22
1996.500	H	38.46	-63.70	9.10	0.89	-55.49	-13.00	42.49
1996.500	V	39.01	-62.53	9.10	0.89	-54.32	-13.00	41.32
2662.000	H	36.23	-63.73	9.66	1.06	-55.13	-13.00	42.13
2662.000	V	36.33	-63.55	9.66	1.06	-54.95	-13.00	41.95
5MHz QPSK, Frequency: 680.5 MHz								
583.29	H	20.84	-53.35	0.00	0.46	-53.81	-13.00	40.81
623.44	V	20.90	-50.41	0.00	0.48	-50.89	-13.00	37.89
1361.000	H	36.56	-66.77	8.11	0.77	-59.43	-13.00	46.43
1361.000	V	35.58	-67.95	8.11	0.77	-60.61	-13.00	47.61
2041.500	H	37.01	-65.02	9.12	0.91	-56.81	-13.00	43.81
2041.500	V	38.26	-63.38	9.12	0.91	-55.17	-13.00	42.17
2722.000	H	36.23	-63.74	9.76	1.05	-55.03	-13.00	42.03
2722.000	V	36.41	-63.50	9.76	1.05	-54.79	-13.00	41.79
5MHz QPSK, Frequency: 695.5 MHz								
610.47	H	20.63	-53.17	0.00	0.47	-53.64	-13.00	40.64
536.26	V	21.09	-50.54	0.00	0.46	-51.00	-13.00	38.00
1391.000	H	36.24	-67.38	8.19	0.72	-59.91	-13.00	46.91
1391.000	V	36.12	-67.58	8.19	0.72	-60.11	-13.00	47.11
2086.500	H	37.48	-64.43	9.15	0.91	-56.19	-13.00	43.19
2086.500	V	39.55	-62.24	9.15	0.91	-54.00	-13.00	41.00
2782.000	H	36.22	-63.72	9.85	1.05	-54.92	-13.00	41.92
2782.000	V	36.43	-63.40	9.85	1.05	-54.60	-13.00	41.60

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

==== END OF REPORT =====