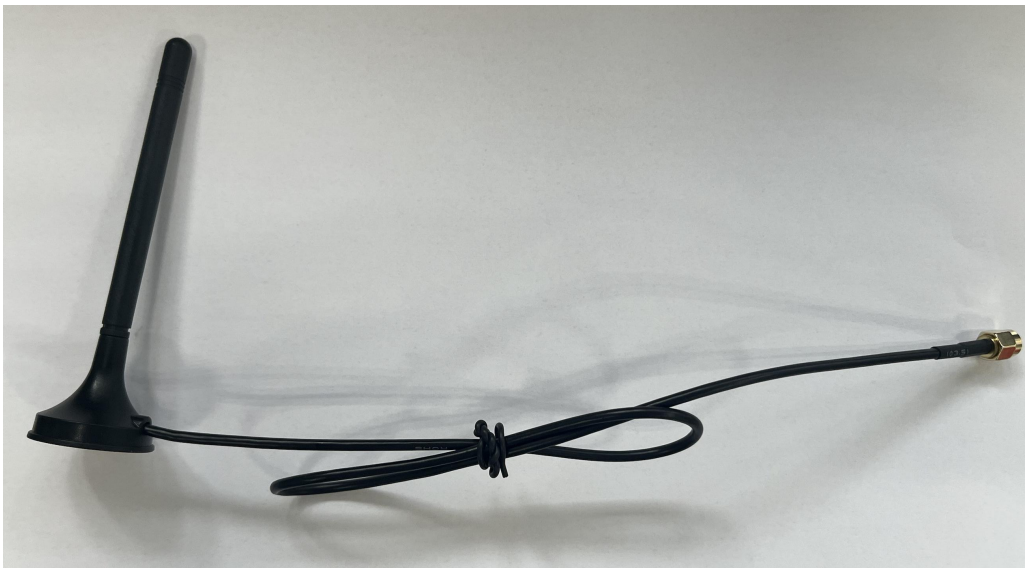
Model No.（GL002） 4G LTE

1. Explanation of Product Num

S	2	M	3	L	0	2	0	J	7	0	1	0	0	2
				(1)		(2)	(3)	(4)		(5)				



Product Code:

(1) Working Frequencies:

L: 698-960/1710-2690/3300-3800

(2) Reverso Context:

02: 产品序号 02

(3) Input voltage:

0: 0V

(4)Antenna type:

7: 外接天线

(5) Adapters:

01: SMA plug

Tolerances (Unless otherwise specified) X : ± 1 X.X : ± 0.1 X.XX : ± 0.01 Angle : ± Hole Dia. : ±		Unictron Technologies Corp.	Unictron Technologies Corporation Website: www.unictron.com
Scale :	Unit：mm	THIS SPECIFICATION IS THE PROPERTY OF UNICTRON TECHNOLOGIES CORPORATION AND SHALL NOT BE REPRODUCED OR USED IN ALL CIRCUMSTANCES WITHOUT WRITTEN PERMISSION	
Prepared By :Mia	Checked By : Joy		
	Approved By : Craig		
TITLE: GL002 (4G LTE) MW-1B-A-C01		PART NO.	S2M3L020J701002 / REV. C

2. Applications

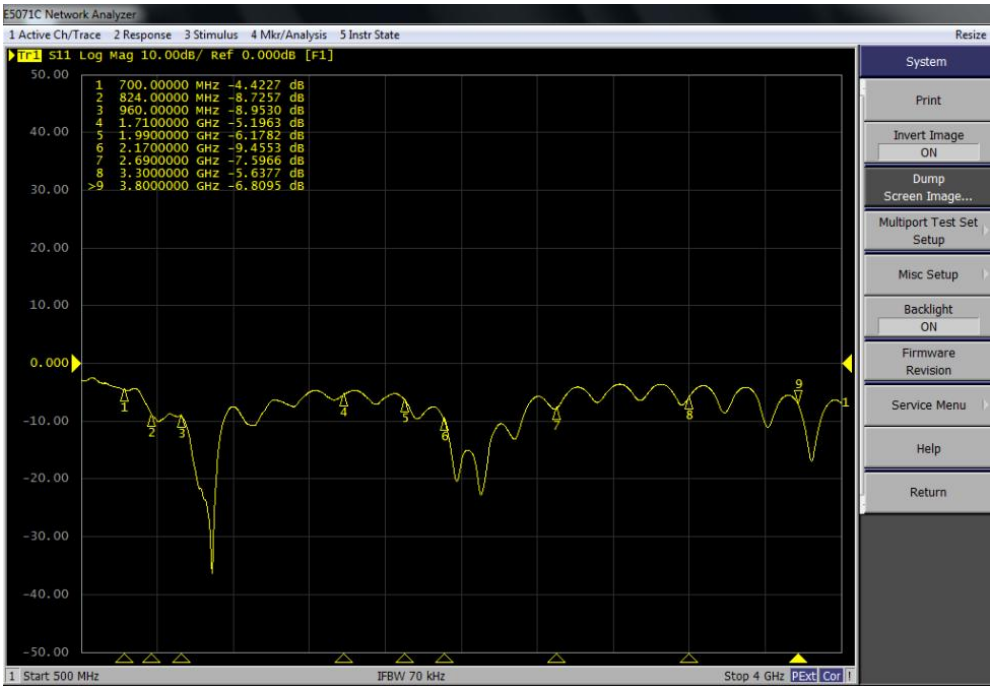
IoT Device Application
Smart Community Application
Smart Home - Connected Enterprise

3. Electrical Specifications

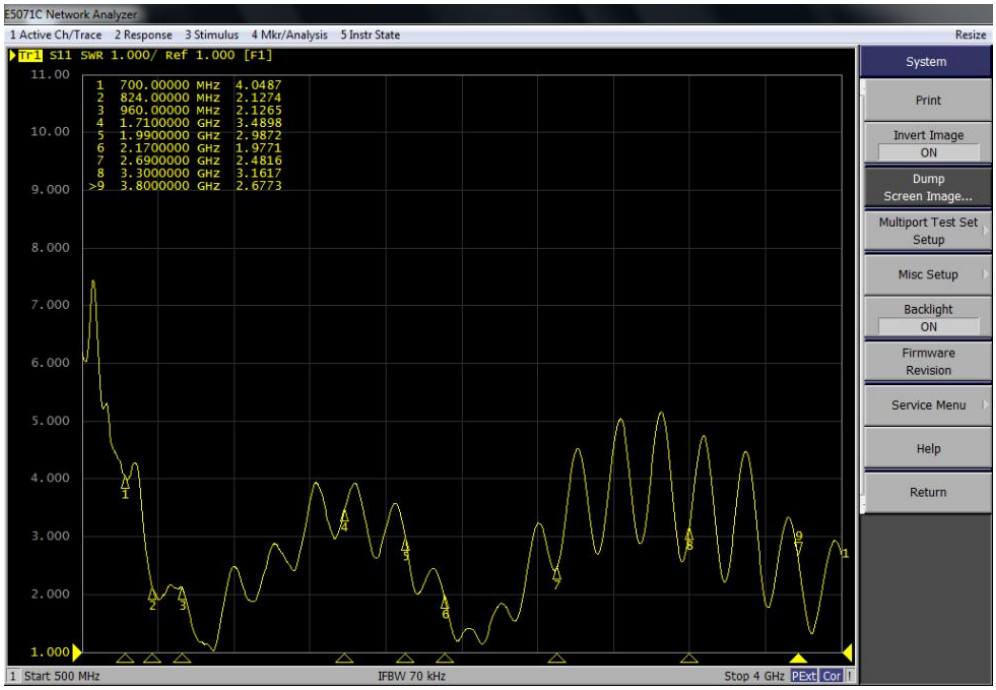
3-1. Electrical Table

Characteristics	Specifications			Unit
Frequency	698-960	1710-2690	3300-3800	MHz
Efficiency	≧40%	≧35%	≧28%	%
Average Gain	-6.65	-4.87	-4.87	dBi
VSWR	≤4			
Impedance	50			Ω
Polarization	Linear Polarization			

3-2. Return Loss(S_{11})



3-3. SWR(S_{11})



3-4. Efficiency

3-4-1. 698-960MHz

Freq(MHz)	Gain(dB)	Efficiency(dB)	Efficiency(%)	Freq(MHz)	Gain(dB)	Efficiency(dB)	Efficiency(%)
698	0.77	-5.97	25.32	834	2.75	-3.72	42.50
710	0.76	-5.93	25.55	844	3.00	-3.53	44.31
720	0.82	-5.96	25.35	854	3.25	-3.33	46.43
730	0.83	-6.07	24.70	864	3.44	-3.15	48.44
740	0.88	-6.12	24.45	874	3.65	-2.94	50.83
750	0.96	-6.10	24.55	884	3.82	-2.77	52.85
760	1.08	-6.04	24.89	894	3.96	-2.59	55.11
770	1.32	-5.87	25.88	904	4.07	-2.43	57.20
780	1.64	-5.63	27.33	914	4.21	-2.26	59.49
790	2.00	-5.31	29.42	924	4.26	-2.14	61.03
800	2.58	-4.79	33.21	934	4.30	-2.03	62.65
810	2.94	-4.50	35.52	944	4.36	-1.91	64.37
820	3.29	-4.15	38.48	954	4.33	-1.87	65.08
824	3.41	-4.03	39.55	960	4.32	-1.83	65.61

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3-4-2. 1710-2160MHz

Freq(MHz)	Gain(dB)	Efficiency(dB)	Efficiency(%)	Freq(MHz)	Gain(dB)	Efficiency(dB)	Efficiency(%)
1710	-0.83	-4.41	36.24	1940	0.06	-4.04	39.41
1720	-0.97	-4.54	35.17	1950	0.12	-4.01	39.76
1730	-1.04	-4.59	34.72	1960	0.23	-3.91	40.60
1740	-1.07	-4.61	34.56	1970	0.38	-3.78	41.84
1750	-1.04	-4.62	34.49	1980	0.56	-3.64	43.29
1760	-1.08	-4.66	34.21	1990	0.76	-3.45	45.23
1770	-1.00	-4.65	34.26	2000	0.91	-3.28	46.96
1780	-0.89	-4.59	34.72	2010	1.09	-3.10	48.96
1790	-0.75	-4.50	35.46	2020	1.22	-2.96	50.63
1800	-0.54	-4.35	36.74	2030	1.31	-2.86	51.78
1810	-0.39	-4.20	38.03	2040	1.38	-2.78	52.78
1820	-0.20	-4.03	39.49	2050	1.36	-2.77	52.86
1830	-0.05	-3.90	40.71	2060	1.35	-2.77	52.81
1840	0.02	-3.87	40.99	2070	1.31	-2.79	52.54
1850	0.07	-3.88	40.95	2080	1.22	-2.87	51.59
1860	0.09	-3.88	40.92	2090	1.25	-2.93	50.95
1870	0.05	-3.91	40.61	2100	1.23	-2.98	50.34
1880	0.01	-3.98	39.95	2110	1.35	-2.96	50.53
1890	-0.04	-4.04	39.43	2120	1.39	-2.93	50.97
1900	0.00	-4.01	39.70	2130	1.39	-2.88	51.50
1910	0.08	-3.96	40.16	2140	1.56	-2.81	52.38
1920	0.03	-4.02	39.60	2150	1.71	-2.72	53.47
1930	0.00	-4.06	39.26	2160	1.86	-2.62	54.76

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3-4-3. 2170-2690MHz

Freq(MHz)	Gain(dB)	Efficiency(dB)	Efficiency(%)	Freq(MHz)	Gain(dB)	Efficiency(dB)	Efficiency(%)
2170	2.02	-2.46	56.71	2440	1.83	-2.96	50.58
2180	2.16	-2.32	58.59	2450	1.80	-2.95	50.69
2190	2.39	-2.11	61.52	2460	1.79	-2.94	50.77
2200	2.52	-1.97	63.61	2470	1.80	-2.93	50.98
2210	2.60	-1.88	64.92	2480	1.85	-2.89	51.35
2220	2.68	-1.84	65.44	2490	1.85	-2.92	51.03
2230	2.61	-1.87	65.02	2500	1.87	-2.91	51.22
2240	2.55	-1.91	64.45	2510	1.88	-2.94	50.83
2250	2.51	-1.95	63.77	2520	1.78	-3.02	49.90
2260	2.41	-1.97	63.55	2530	1.66	-3.14	48.55
2270	2.39	-1.96	63.68	2540	1.51	-3.32	46.52
2280	2.35	-1.95	63.76	2550	1.35	-3.46	45.04
2290	2.32	-1.94	63.96	2560	1.17	-3.66	43.05
2300	2.27	-1.96	63.73	2570	1.03	-3.81	41.55
2310	2.40	-1.95	63.84	2580	0.91	-3.93	40.50
2320	2.53	-1.92	64.22	2590	0.78	-4.07	39.14
2330	2.69	-1.91	64.42	2600	0.66	-4.18	38.19
2340	2.80	-1.89	64.71	2610	0.59	-4.24	37.71
2350	2.86	-1.91	64.43	2620	0.54	-4.28	37.33
2360	2.82	-2.00	63.14	2630	0.59	-4.23	37.79
2370	2.74	-2.09	61.82	2640	0.54	-4.21	37.93
2380	2.63	-2.24	59.77	2650	0.60	-4.11	38.78
2390	2.39	-2.43	57.10	2660	0.57	-4.07	39.15
2410	2.04	-2.78	52.77	2670	0.48	-4.07	39.15
2420	1.85	-2.91	51.20	2680	0.43	-4.14	38.56
2430	1.82	-2.95	50.65	2690	0.36	-4.31	37.11

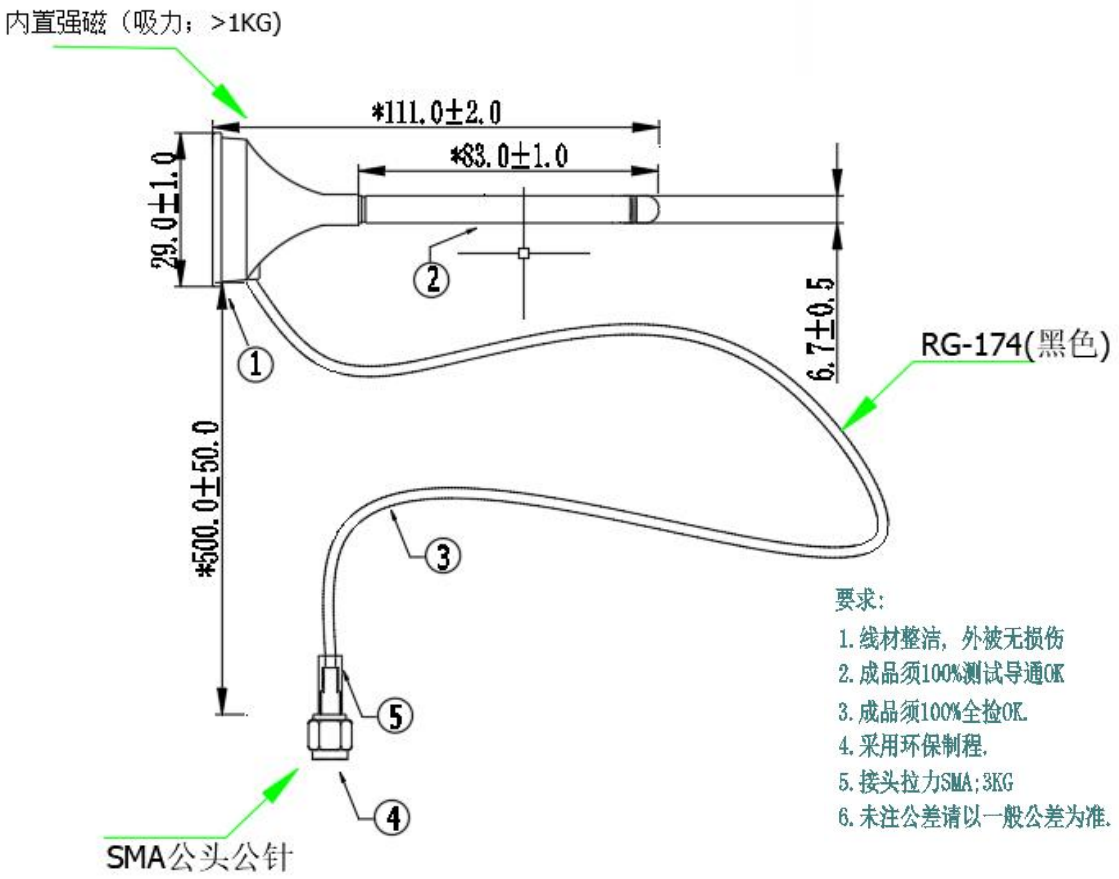
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3-4-3. 3300-3800MHz

Freq(MHz)	Gain(dB)	Efficiency(dB)	Efficiency(%)	Freq(MHz)	Gain(dB)	Efficiency(dB)	Efficiency(%)
3300	-1.60	-5.48	28.29	3560	-1.59	-5.66	27.19
3310	-1.86	-5.27	29.72	3570	-1.32	-5.47	28.36
3320	-2.14	-5.52	28.02	3580	-1.03	-5.27	29.70
3330	-2.33	-5.26	29.81	3590	-0.65	-5.25	29.87
3340	-2.39	-5.36	29.13	3600	-0.31	-4.93	32.12
3350	-2.49	-5.46	28.45	3610	-0.03	-4.67	34.11
3360	-2.42	-5.62	27.40	3620	0.34	-4.30	37.19
3370	-2.33	-5.61	27.48	3630	0.64	-4.01	39.74
3380	-2.20	-5.37	29.04	3640	0.88	-3.74	42.27
3390	-1.86	-5.42	28.68	3650	1.06	-3.58	43.87
3400	-1.49	-5.30	29.50	3660	1.10	-3.54	44.27
3410	-1.09	-5.12	30.73	3670	0.99	-3.62	43.44
3420	-0.72	-5.08	31.08	3680	0.80	-3.80	41.65
3430	-0.42	-4.82	32.98	3690	0.59	-3.97	40.10
3440	-0.11	-4.53	35.27	3700	0.38	-4.17	38.29
3450	-0.02	-4.40	36.27	3710	0.20	-4.28	37.36
3460	-0.07	-4.40	36.33	3720	0.16	-4.35	36.69
3470	-0.16	-4.46	35.79	3730	0.04	-4.52	35.33
3480	-0.34	-4.62	34.51	3740	-0.01	-4.57	34.89
3490	-0.61	-4.80	33.08	3750	0.01	-4.59	34.79
3500	-0.94	-5.10	30.91	3760	0.03	-4.58	34.82
3510	-1.24	-5.35	29.15	3770	0.20	-4.43	36.03
3520	-1.51	-5.28	29.67	3780	0.42	-4.27	37.41
3530	-1.70	-5.48	28.30	3790	0.69	-4.05	39.33
3540	-1.71	-5.59	27.58	3800	0.99	-3.76	42.03
3550	-1.69	-5.68	27.02				

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4. Antenna Dimensions (unit: mm)

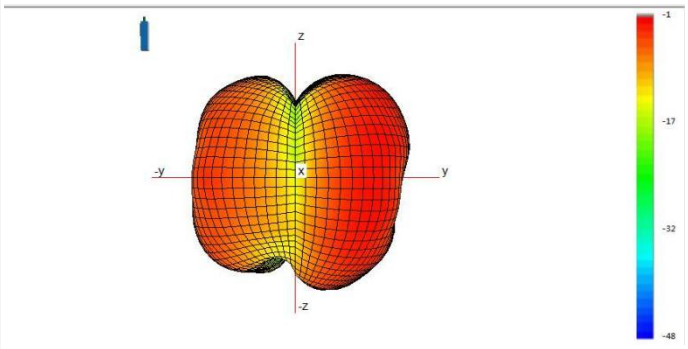


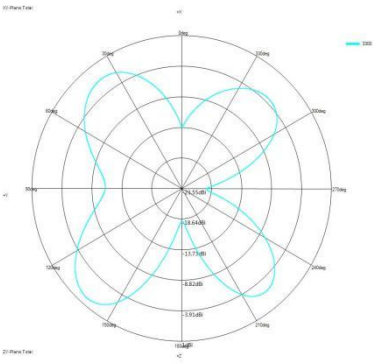
NO		DESCRIPTION	QTY
6			1
5	热缩管	3.5*18MM-BLACK	1
4	SMA	S15.1*174-ZJ-SMA-插针铆压 镀金	1
3	线材	1.74黑-64铜包铝-PE L=500MM	1
2	钢线	6.7*83MM	1
1	吸盘底座	30*28*174-有边吸盘	1

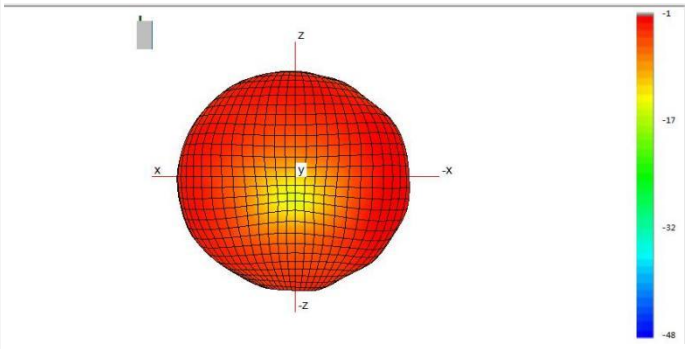
Tolerances (Unless otherwise specified) X : ± 1 X.X : ± 0.1 X.XX : ± 0.01 Angle : ± Hole Dia. : ±		Unictron Technologies Corp.	Unictron Technologies Corporation Website: www.unictron.com
Scale :	Unit：mm	THIS SPECIFICATION IS THE PROPERTY OF UNICTRON TECHNOLOGIES CORPORATION AND SHALL NOT BE REPRODUCED OR USED IN ALL CIRCUMSTANCES WITHOUT WRITTEN PERMISSION	
Prepared By :Mia	Checked By : Joy		
	Approved By : Craig		
TITLE: GL002 (4G LTE) MW-1B-A-C01		PART NO.	S2M3L020J701002 / REV. C

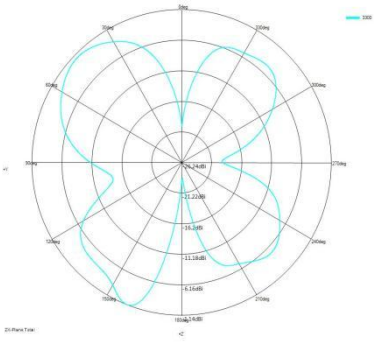
5.Radiation Pattern

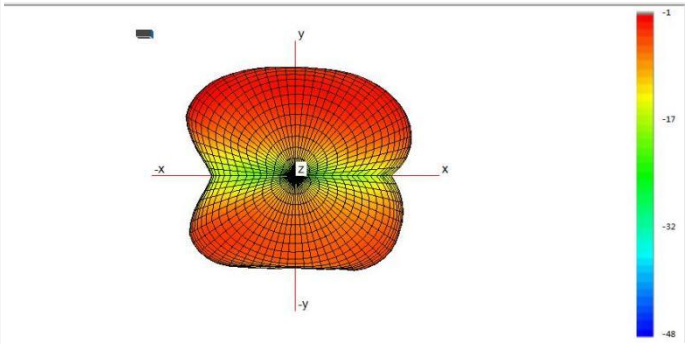
3D Gain Pattern

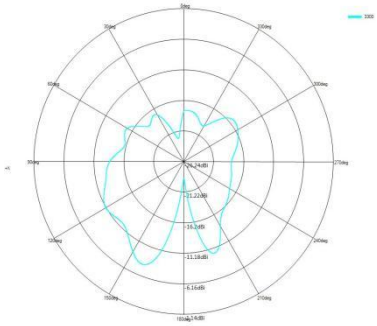


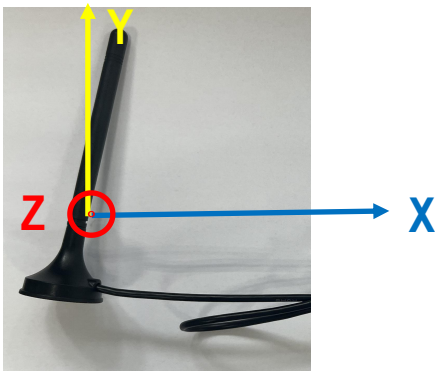












Tolerances (Unless otherwise specified) X : ± 1 X.X : ± 0.1 X.XX : ± 0.01 Angle : ± Hole Dia. : ±		Unictron Technologies Corp.	Unictron Technologies Corporation Website: www.unictron.com
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TITLE: GL002 (4G LTE) MW-1B-A-C01		PART NO.	S2M3L020J701002 / REV. C

6.Revision Control:

Revision	Date	Content	Remark
A	2019.11.7	New Issued.	N/A
B	2023.6.8	无源效率，料号，驻波比，回波损耗，方向图	P1.2.3.4.5.6.8
C	2024.7.11	更改尺寸	P7

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