

Shenzhen QiChen Communication

Equipment Co. , Ltd.

APPROVAL

Customers:

Shenzhen Huatuo Security Co. , Ltd.

DESCRIPTION:

PART NO.:

QC-4G-250MM-120A

CUS PART NO.:

QC-4G-250MM-120A

D A T E:

2024.4.10

Sample signature

ENGINEERING DEPARTMENT	Q C DEPARTMENT	SALES DEPARTMENT
ChenYuanPing	LiPing	XiongFang

Customer acknowledges signature

ENGINEERING DEPARTMENT	Q C DEPARTMENT	PURCHASING DEPARTMENT

Shenzhen QiChen Communication

Equipment Co. , Ltd.

Technical parameters of electrical apparatus			
电 性 能 指 标		Electrical Specifications	
频率范围	700MHz/2700MHz	Frequency Range	700MHz/2700MHz
电压驻波比	≤2.0	VSWR	≤2.0
天线增益	5.0DBI	antenna gain	5.0DBI
输入阻抗	50 Ω	Input Impedance	50 Ω
最大输入功率	50W	Maximum Input Power	50W
机 械 指 标		Mechanical Specifications	
天线颜色	白色	Antenna Color	White
接口形式	IPEX	Input connector	IPEX
天线长度	124mm	Cable length	124mm
工作温度	-40℃~+85℃	Working Temperature	-40℃~+85℃
工作湿度	20~80%	Working Humidity	20~80%

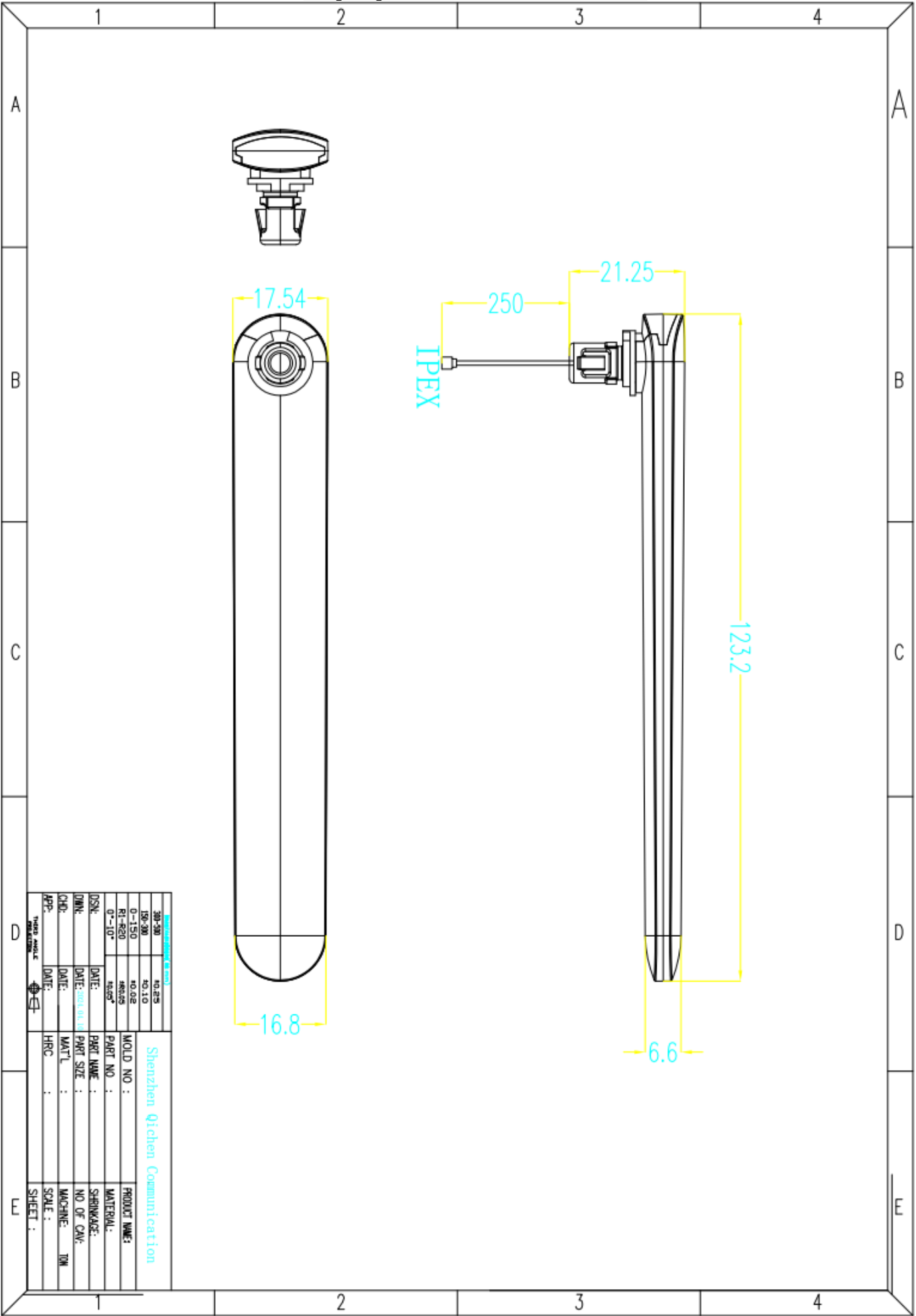
Environmental performance testing:

Project	Test conditions	Specifications
Storage environment	Test temperature, humidity, and air pressure without specifying: 1. The temperature is -30 ° C-+ 80 ° C 2. Relative humidity is 45% -85% 3.5% . The pressure is 86 KPA-106 kpa	The electrical and mechanical properties are normal
High and low temperature test	Five cycles were performed between 70 ° C and 40 ° C, and then the appearance quality was checked under normal conditions for 1-2 H.	The dimensions shall meet the requirements and shall satisfy the mechanical and electrical properties

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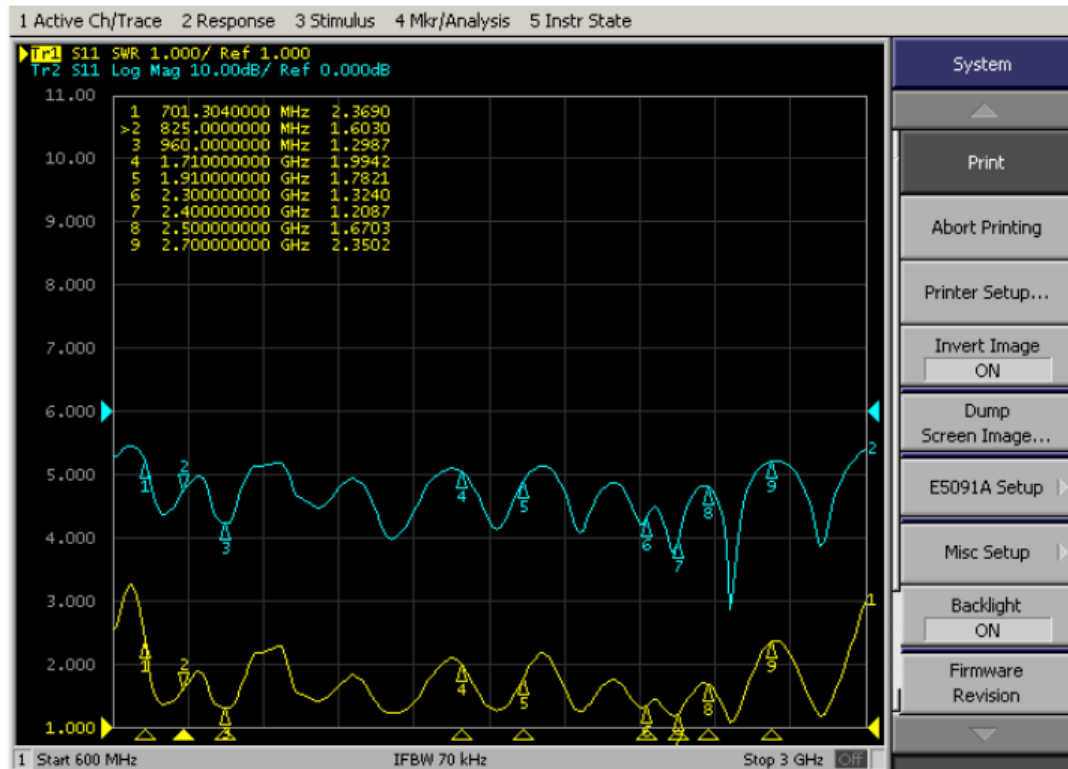
Resistance to constant damp heat, test	The relative humidity was $95 \pm 3\%$ and the test temperature was $40\text{ }^{\circ}\text{C}$. The electrical properties of the samples were determined within 5 minutes after the samples were taken out, and the appearance quality of the samples was examined after 1-2 hours under normal conditions	The dimensions shall meet the requirements and shall satisfy the mechanical and electrical properties
Vibration test	Vibration frequency range 10-55HZ, displacement amplitude: 0.35 mm, acceleration amplitude: 50.0 m/s, frequency sweep cycle number: 30 times	The electrical and mechanical properties are normal
Drop test	1m high in accordance with the vertical axis of each other free fall 3 times	The electrical and mechanical properties are normal

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S11 SWR LOG



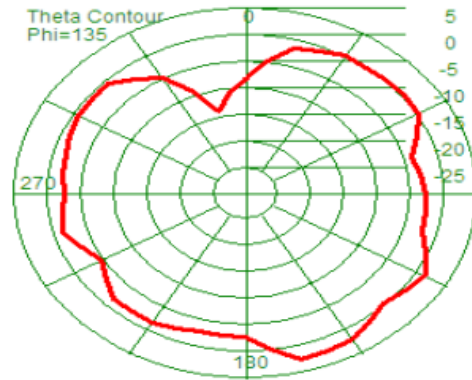
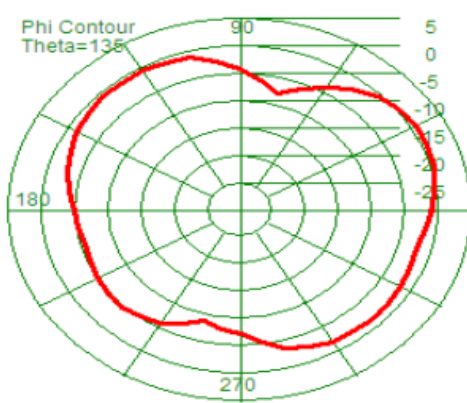
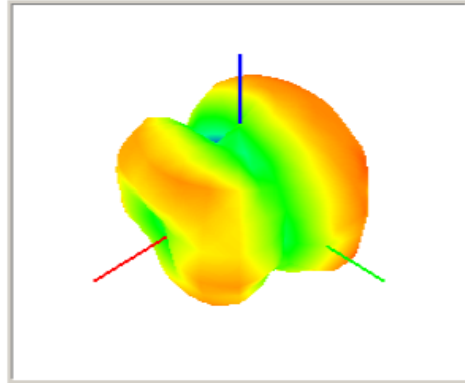
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Test Point ID	Freq. (MHz)	TRP (dBm)	Gain (dB)	Directivity (dB)	Efficiency (%)	Efficiency (dB)	Max (dBm)	Theta of Max	Phi of Max	Min (dBm)	Theta of Min	Phi of Min	AVG (dBm)	Max/Min (dB)	Max/AVG (dB)	Min/AVG (dB)
1	700.0	700.00	1.15	3.94	43.6%	1.15	-0.22	12000	4500	-13.88	7500	16680	-4.35	13.65	4.13	-9.52
2	720.0	720.00	1.29	4.79	44.7%	1.29	1.29	12000	6000	-13.24	9000	16500	-3.90	14.53	5.18	-9.35
3	740.0	740.00	1.68	4.90	47.7%	1.68	1.68	12000	6000	-12.04	7500	15180	-3.79	13.72	5.47	-8.25
4	760.0	760.00	2.46	5.39	51.0%	2.46	2.46	12000	7500	-11.64	9000	180	-3.51	14.10	5.98	-8.12
5	780.0	780.00	2.31	5.51	47.9%	2.31	2.31	12000	7500	-13.48	9000	16680	-3.70	15.79	6.01	-9.77
6	800.0	800.00	2.13	5.49	46.1%	2.13	2.13	13500	7500	-14.19	16500	15180	-3.75	16.32	5.88	-10.44
7	820.0	820.00	2.21	5.58	46.0%	2.21	2.21	13500	9000	-16.52	16500	16680	-3.72	18.72	5.92	-12.80
8	840.0	840.00	2.10	5.34	47.4%	2.10	2.10	12000	7500	-17.39	16500	16680	-3.64	19.49	5.74	-13.75
9	860.0	860.00	2.19	5.17	50.4%	2.19	2.19	12000	7500	-15.41	16500	0	-3.38	17.60	5.57	-12.03
10	880.0	880.00	2.71	5.61	51.3%	2.71	2.71	13500	7500	-14.91	9000	180	-3.15	17.62	5.86	-11.75
11	900.0	900.00	3.16	5.85	53.8%	3.16	3.16	13500	7500	-17.04	10500	16680	-2.85	20.20	6.01	-14.19
12	920.0	920.00	3.37	5.78	57.4%	3.37	3.37	13500	7500	-19.63	10500	16680	-2.52	23.01	5.89	-17.11
13	940.0	940.00	3.66	5.99	58.4%	3.66	3.66	13500	7500	-20.47	10500	16680	-2.31	24.12	5.97	-18.15
14	960.0	960.00	3.83	6.27	57.1%	3.83	3.83	13500	7500	-21.21	10500	16680	-2.21	25.04	6.04	-19.00
15	1700.0	1700.00	4.12	8.38	56.8%	4.12	5.92	18000	13500	-21.25	7500	4500	-0.99	27.17	6.91	-20.26
16	1750.0	1750.00	4.36	8.70	57.2%	4.36	6.27	18000	15000	-18.74	10500	9180	-0.91	25.02	7.18	-17.84
17	1800.0	1800.00	4.15	8.67	57.1%	4.15	6.23	18000	15000	-19.92	10500	0	-1.07	26.16	7.30	-18.86
18	1850.0	1850.00	3.28	8.78	57.1%	3.28	6.34	18000	15000	-19.19	9000	0	-1.21	25.53	7.56	-17.97
19	1900.0	1900.00	3.64	8.86	55.4%	3.64	6.30	18000	15000	-19.28	9000	0	-1.33	25.58	7.63	-17.95
20	1950.0	1950.00	3.82	8.27	53.5%	3.82	5.56	18000	16500	-20.53	9000	3000	-1.42	26.08	6.98	-19.11
21	2000.0	2000.00	3.80	7.89	51.8%	3.80	5.03	18000	16500	-16.41	9000	0	-1.56	21.45	6.59	-14.85
22	2050.0	2050.00	3.81	6.70	51.4%	3.81	3.81	18000	16500	-15.35	15000	0	-1.82	19.16	5.63	-13.53
23	2100.0	2100.00	2.91	6.38	56.3%	2.91	2.91	18000	16500	-21.62	12000	3000	-2.51	24.53	5.42	-19.11
24	2150.0	2150.00	2.75	5.80	52.3%	2.75	2.06	18000	16500	-20.24	6000	10680	-3.03	22.30	5.09	-17.22
25	2200.0	2200.00	2.68	5.11	50.6%	2.68	1.01	12000	10500	-27.43	6000	10680	-3.69	28.44	4.70	-23.74
26	2300.0	2300.00	3.01	5.23	58.6%	3.01	1.99	13500	12000	-24.88	6000	10680	-3.25	26.87	5.24	-21.63
27	2350.0	2350.00	3.09	5.10	60.2%	3.09	2.09	12000	12000	-21.56	1500	3000	-3.15	23.65	5.24	-18.41
28	2400.0	2400.00	3.64	5.20	65.5%	3.64	2.64	12000	12000	-21.21	1500	15180	-2.53	23.85	5.28	-18.57
29	2450.0	2450.00	3.65	5.45	62.5%	3.65	2.65	15000	13500	-19.09	3000	10680	-2.85	21.74	5.50	-16.24
30	2500.0	2500.00	3.17	4.88	63.5%	3.17	2.17	15000	13500	-18.44	3000	10680	-2.76	20.61	4.93	-15.68
31	2550.0	2550.00	2.54	5.50	60.2%	2.54	2.54	16500	15000	-20.44	1500	12180	-2.97	22.98	5.51	-17.46
32	2600.0	2600.00	3.88	5.66	60.7%	3.88	2.88	16500	15000	-19.39	1500	10680	-2.81	22.27	5.69	-16.58
33	2650.0	2650.00	3.39	5.46	59.6%	3.39	2.39	16500	15000	-21.48	1500	10680	-3.05	23.87	5.44	-18.43
34	2700.0	2700.00	3.59	5.87	58.4%	3.59	2.59	16500	15000	-17.14	3000	9180	-3.23	19.73	5.83	-13.90

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1. Scope:

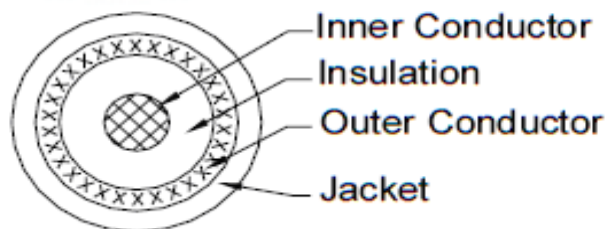
This specification covers FEP insulated High-Frequency coaxial cable for internal wiring of electronic equipment.

2. Construction :

	Item	Unit	Spec. Value
Inner Conductor	Material	---	Silver plated copper
	construction	No./mm	7/0.102
	Dia.(approx)	mm	0.30
Insulation	Material	---	FEP
	Nom. Thickness	mm	0.27
	Dia.(approx)	mm	0.85±0.05
	Color	---	Natural
Outer Conductor	Type	---	Braid
	Material	---	Silver plated copper
	Coverage	%	16/3/0.10
	Dia.(approx)	mm	1.30
Jacket	Material	---	FEP
	Nom. Thickness	mm	0.27
	Color	---	BROWN
	Dia.(approx)	mm	1.85±0.10

3. Characteristics :

Test Item	Unit	Specified Value	Note
Appearance	-	Faultless in visible	-
Inner conductor resistance(at 20℃)	Ω /km	Max.354	At 20℃
Insulation resistance 1> (at 20℃)	M Ω -km	Min.1000	At 20℃
Dielectric strength		No breakdown at AC 2000V for 1min	Outer conductor to inner conductor
Capacitance	pF/m	Nom.95	At 1KHz
Characteristic impedance (at D-TDR)	Ω	50±2	TDR method
Attenuation	dB/m	0.45	100MHz
		1.5	1G
		2.1	2G
		2.6	3G



Cross-section of cable