



深圳市赛维通讯科技有限公司

Shenzhen Sunwin Telecommunication Technology Co., LTD.

Antenna Specifications

承 认 书

CUSTOMER 客户		万域声学	
CS P/N 项目名		A18	
P/N 编号		<u>VTL37-A18-F</u>	
Checked by(RF)	Checkedby(QA)	Approval led by	Date
Customer Approval 客户确认			

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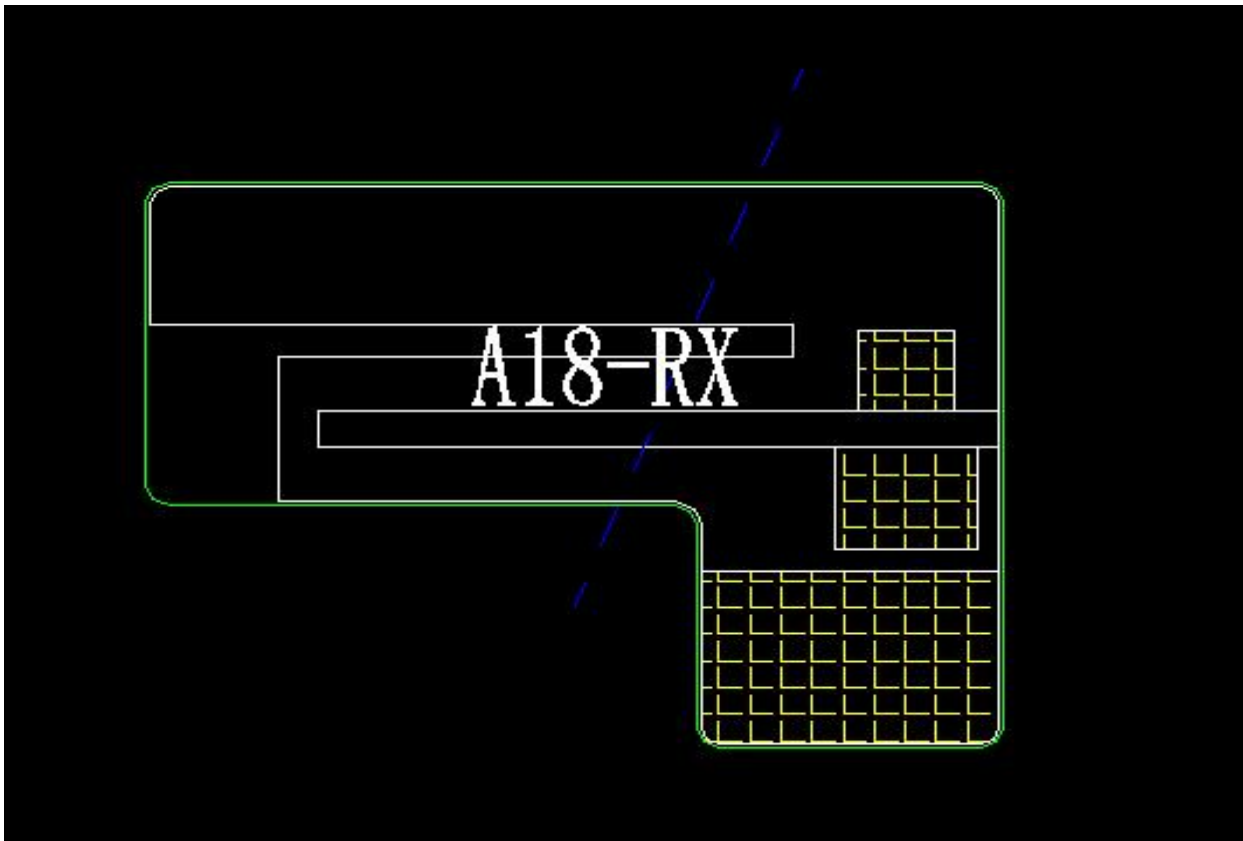
Tel: 0755-66630456

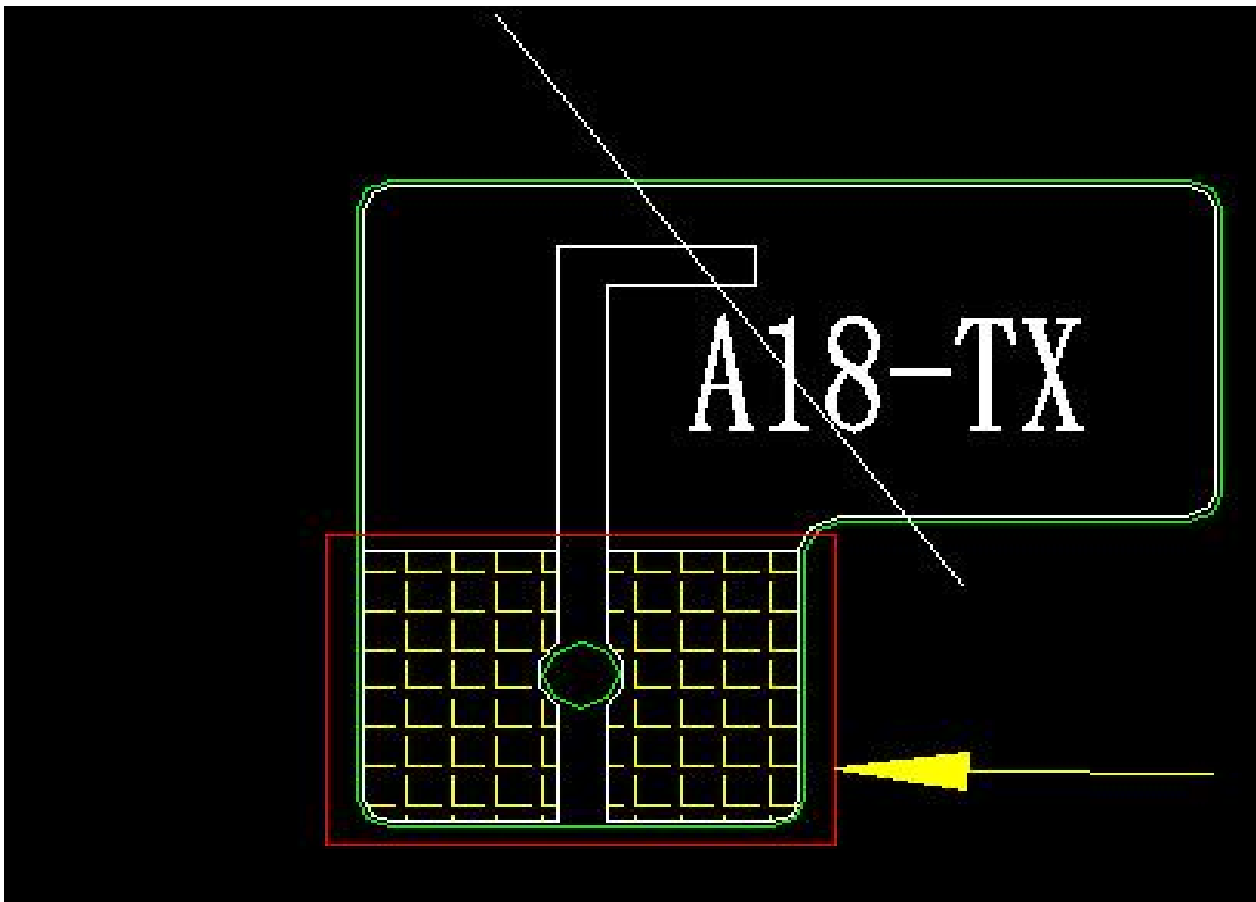
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1.Specifications

This report mainly provides the testing conditions of various electric and structural performance parameters for cell phone antenna - A18. Figure 2-1 shows the antenna designed by SW & The fixturing of A18.





2.Impedance

2.1Nominal

Nominal Impedance(including matching circuit) : 50 ohms

2.2Matching Circuit

The matching circuit is as Figure 2-2.

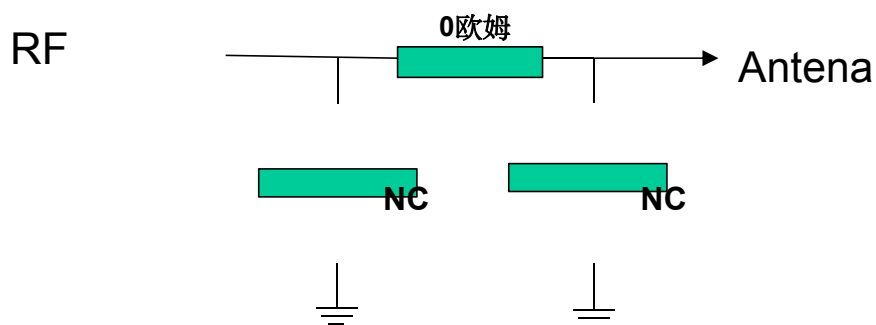


Figure 2-2: Matching circuit

3. Active Measurements

Active Measurements Data

Total Radiated Power (TRP) and Total Isotropic Sensitivity (TIS) of the handsets with antenna are tested in the antenna chambers .

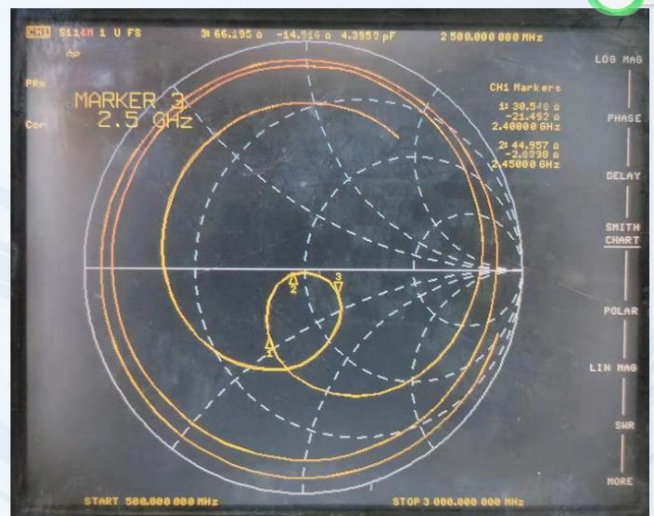
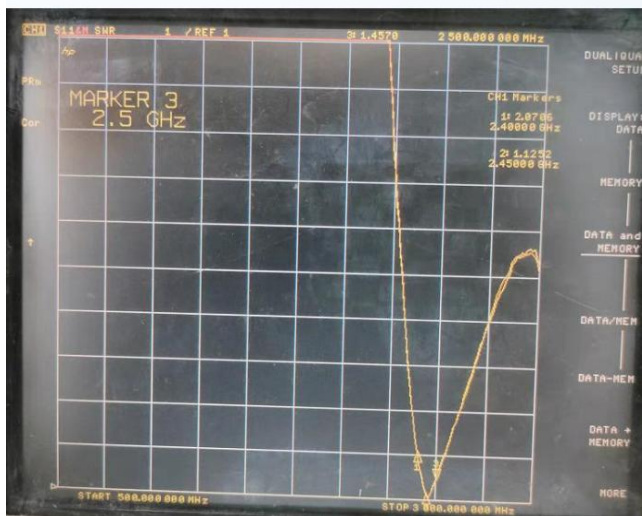
Antenna Chamber Test Data

RX (效率)

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Point Values											
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-2.72	-2.70	-2.75	-2.88	-3.05	-3.12	-3.21	-3.30	-3.36	-3.32	-3.34
Peak EIRP (dBm)	2.27	2.48	2.61	2.58	2.38	2.23	2.20	2.15	2.41	2.32	2.20
Directivity (dBi)	4.99	5.18	5.36	5.46	5.43	5.35	5.41	5.46	5.77	5.64	5.54
Efficiency (dB)	-2.72	-2.70	-2.75	-2.88	-3.05	-3.12	-3.21	-3.30	-3.36	-3.32	-3.34
Efficiency (%)	53.50	53.70	53.10	51.50	49.50	48.80	47.80	46.70	46.10	46.60	46.30
Gain (dBi)	2.27	2.48	2.61	2.58	2.38	2.23	2.20	2.15	2.41	2.32	2.20
NHPRP ±Pi/4 (dBm)	-5.12	-5.09	-5.16	-5.27	-5.46	-5.54	-5.64	-5.79	-5.90	-5.91	-5.96
NHPRP ±Pi/6 (dBm)	-7.01	-6.98	-7.04	-7.15	-7.35	-7.45	-7.57	-7.74	-7.86	-7.84	-7.88
NHPRP ±Pi/8 (dBm)	-10.41	-10.38	-10.43	-10.51	-10.79	-10.95	-11.16	-11.38	-11.49	-11.42	-11.39
Upper Hem. PRP (dBm)	-6.37	-6.33	-6.40	-6.58	-6.84	-6.94	-7.02	-7.11	-7.19	-7.14	-7.20
Lower Hem. PRP (dBm)	-5.17	-5.16	-5.20	-5.29	-5.40	-5.45	-5.54	-5.64	-5.68	-5.65	-5.64
Upper Hem. PRP (%)	23.08	23.28	22.93	21.97	20.72	20.23	19.88	19.45	19.08	19.34	19.06
Lower Hem. PRP (%)	30.38	30.45	30.20	29.58	28.81	28.53	27.92	27.28	27.04	27.25	27.29

SWR

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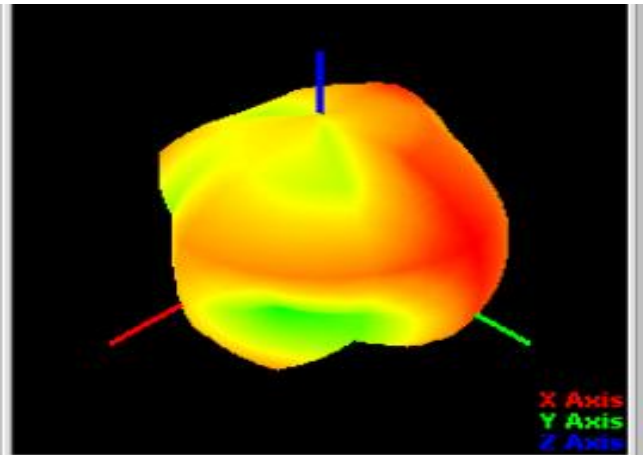
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TX (效率)

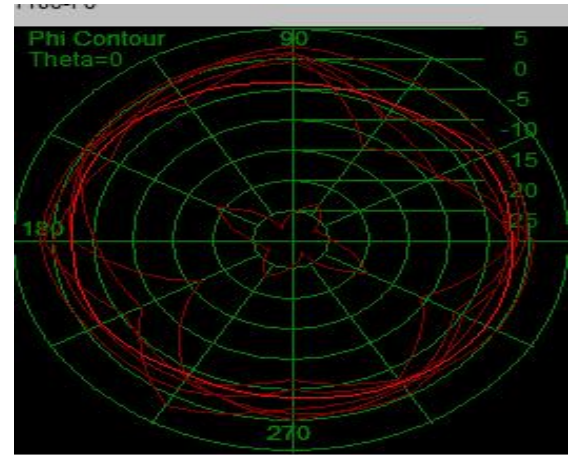
FETUKEJI

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Point Values											
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-2.47	-2.46	-2.44	-2.56	-2.73	-2.74	-2.81	-2.80	-2.83	-2.76	-2.74
Peak EIRP (dBm)	3.40	3.59	3.82	3.95	3.95	4.15	4.45	4.56	4.72	4.74	4.57
Directivity (dBi)	5.88	6.05	6.26	6.51	6.67	6.89	7.26	7.36	7.55	7.49	7.31
Efficiency (dB)	-2.47	-2.46	-2.44	-2.56	-2.73	-2.74	-2.81	-2.80	-2.83	-2.76	-2.74
Efficiency (%)	56.60	56.80	57.10	55.50	53.40	53.20	52.40	52.50	52.10	53.00	53.20
Gain (dBi)	3.40	3.59	3.82	3.95	3.95	4.15	4.45	4.56	4.72	4.74	4.57
NHPRP \pm Pi/4 (dBm)	-4.76	-4.80	-4.83	-5.04	-5.25	-5.26	-5.34	-5.31	-5.29	-5.20	-5.12
NHPRP \pm Pi/6 (dBm)	-6.75	-6.80	-6.87	-7.12	-7.35	-7.38	-7.46	-7.43	-7.39	-7.30	-7.22
NHPRP \pm Pi/8 (dBm)	-10.54	-10.65	-10.82	-11.24	-11.57	-11.72	-11.76	-11.70	-11.62	-11.51	-11.46
Upper Hem. PRP (dBm)	-6.81	-6.84	-6.89	-7.03	-7.24	-7.20	-7.25	-7.19	-7.24	-7.19	-7.21
Lower Hem. PRP (dBm)	-4.47	-4.43	-4.36	-4.48	-4.63	-4.66	-4.74	-4.77	-4.78	-4.69	-4.65
Upper Hem. PRP (%)	20.85	20.69	20.46	19.82	18.90	19.08	18.83	19.08	18.87	19.08	18.99
Lower Hem. PRP (%)	35.73	36.06	36.61	35.64	34.47	34.17	33.54	33.37	33.28	33.95	34.25

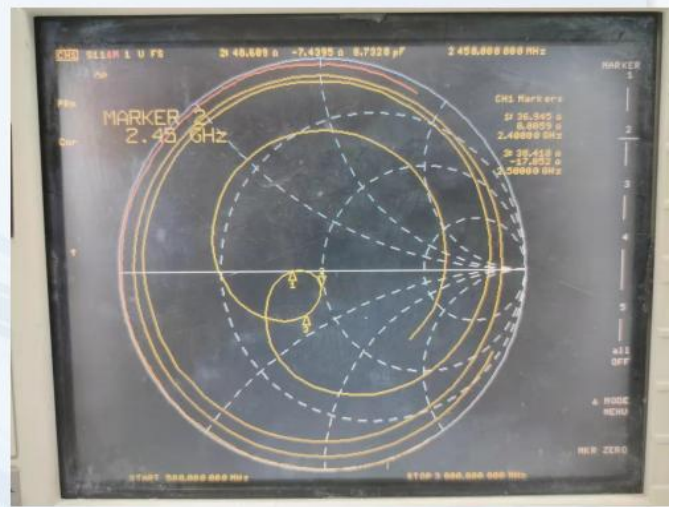
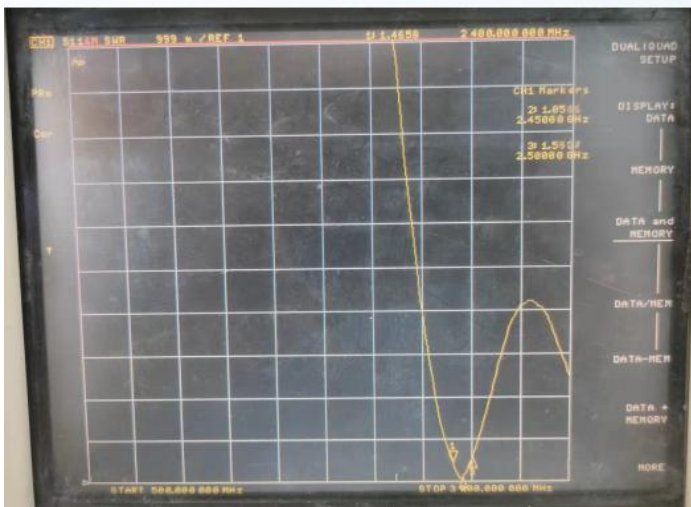
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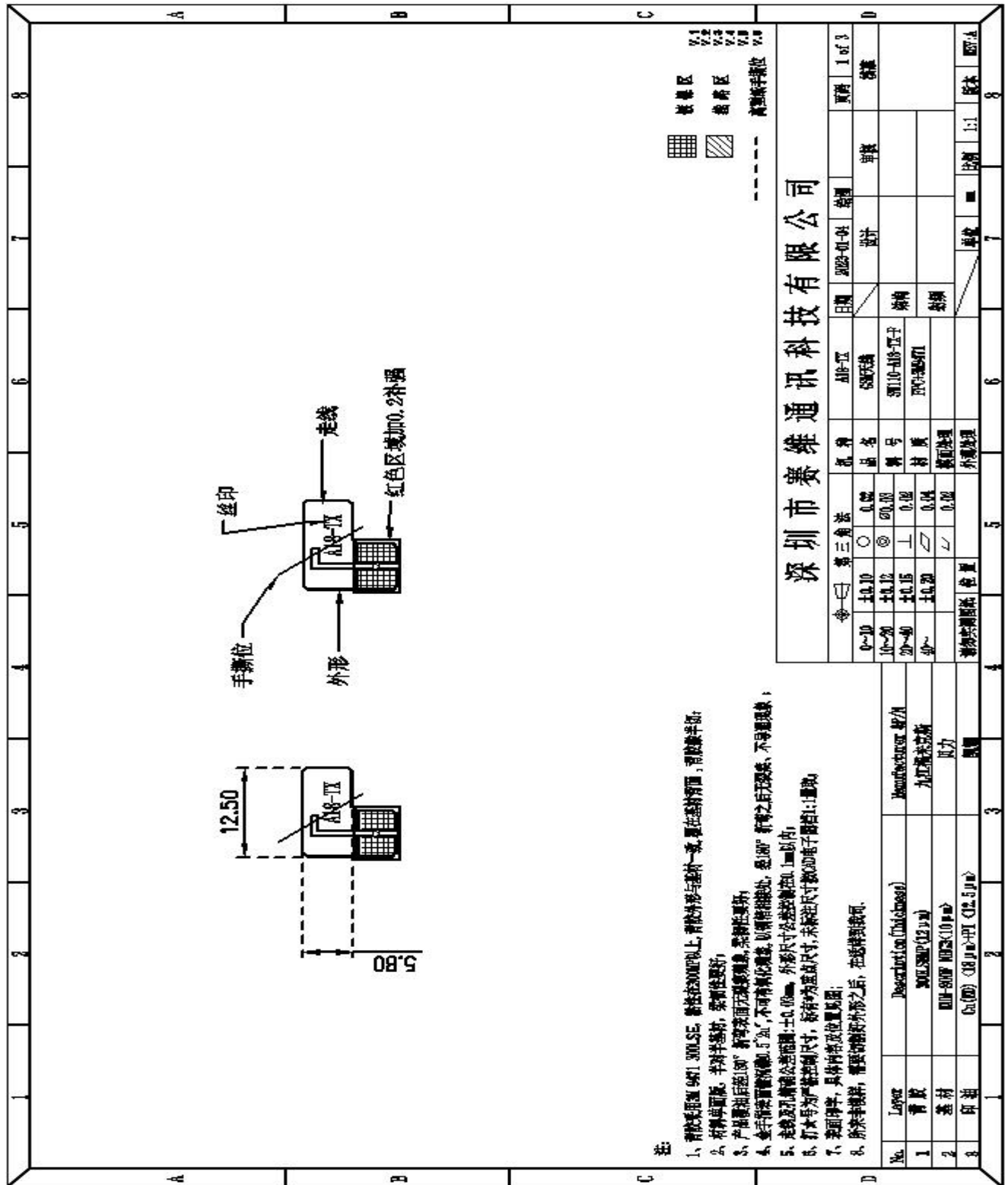
SWR

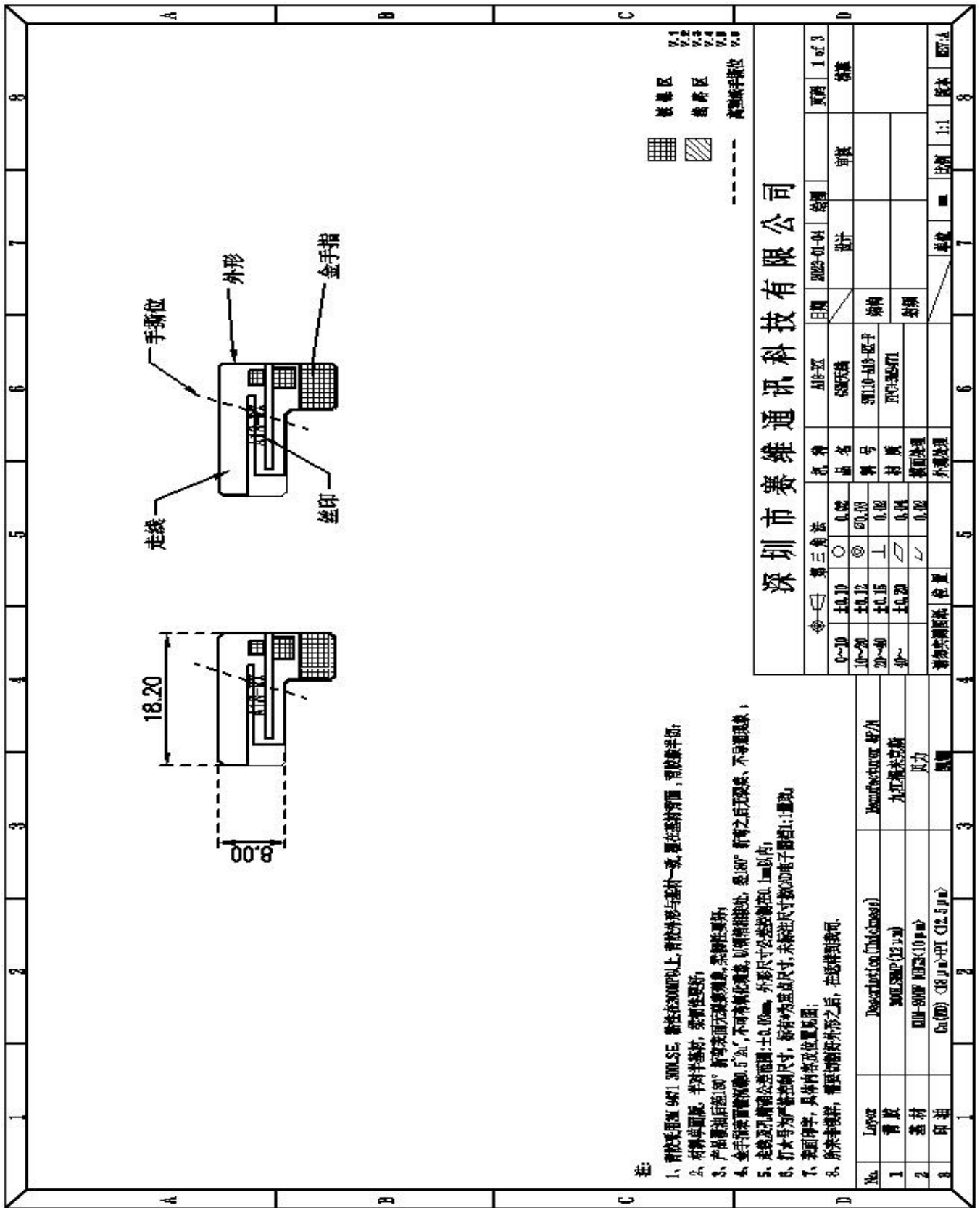


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4 Mechanical Properties





5. Environmental Characteristic

Test Item	Test description
1. Low Temperature	Temp.: -20 °C Time: 24 hours
2. High Temperature	Temp.: 80°C Time: 24 hours
3. Salt Fog	5±0.1% Nad salt fog PH Value: 6.5-7.2 Temp: 35±1°C Time:24 hours