

深圳市创科华科技有限公司
Shenzhen Chuangke Hua Technology Co., Ltd

承 认 书
SPECIFICATION FOR
APPROVAL

客户
CUSTOMER

拜波赫

品名
DEACRIPTION

L36 投影仪

物料编码:
PART NO

物料描述:
SPECIFICATIO

APPROVED BY	SIGNATURE	DATE
Mechanical Engineer:	Zhou	2022-10-14
RF Engineer:	Chen	2022-10-14
Engineering Manager:	Wang	2022-10-14
Approved By Customer (as required):		

1.0 DESCRIPTIONS AND PART NUMBER:

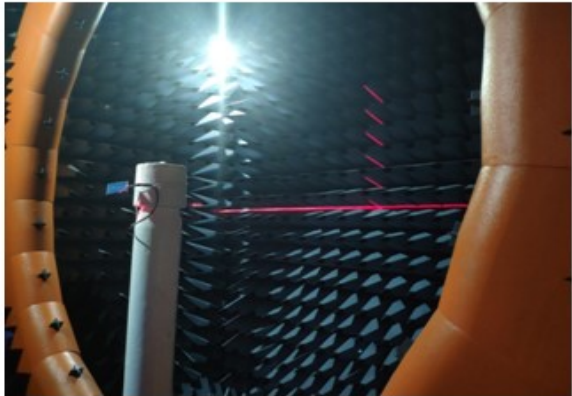
1.1 DESCRIPTION;
The antenna mounts to the housing of the cellular phone. And after that, the feed point on the prolongation of metal plate should firmly touch the contact provided on the PCB in the respective area.

1.2 PART NUMBER

Part number	Frequency Band	HH Part Number
	2.4G+5.8WIFI	

2.0FREQUENCY BAND
2.4GWIFI+5.8WIFI

2.1 ACTIVE TEST REPORT



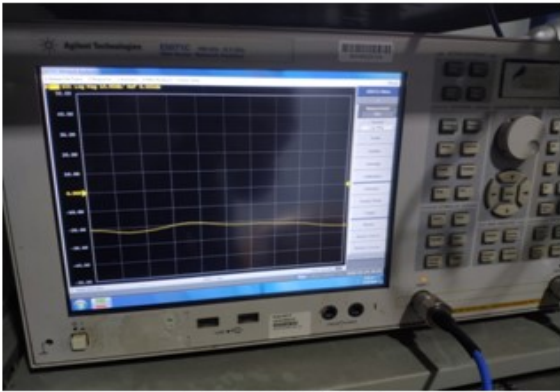
7*4*3M 3D微波暗室



MT8820C



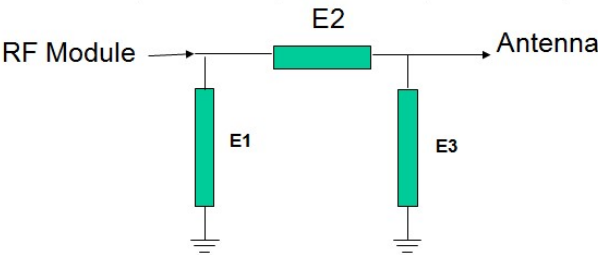
Agilent 8960



Agilent E5071C

匹配电路（无改动，原机器匹配）

Element	E1	E2	E3
Value	/	/	/





2.4/5GWiFi驻波图

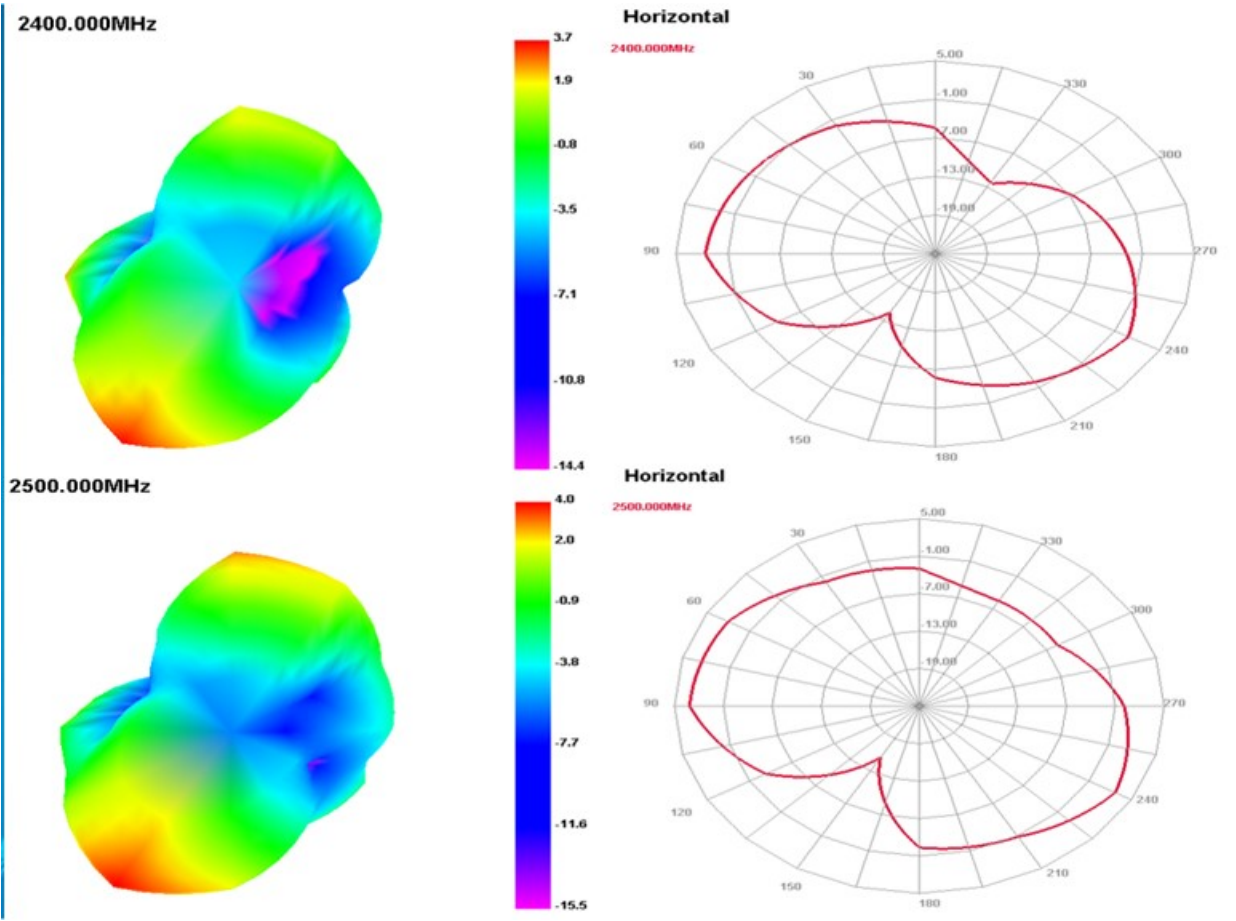


2.4/5GWiFi驻波回损图

3.0 MECHANICAL SPECIFICATIONS:

2.4G

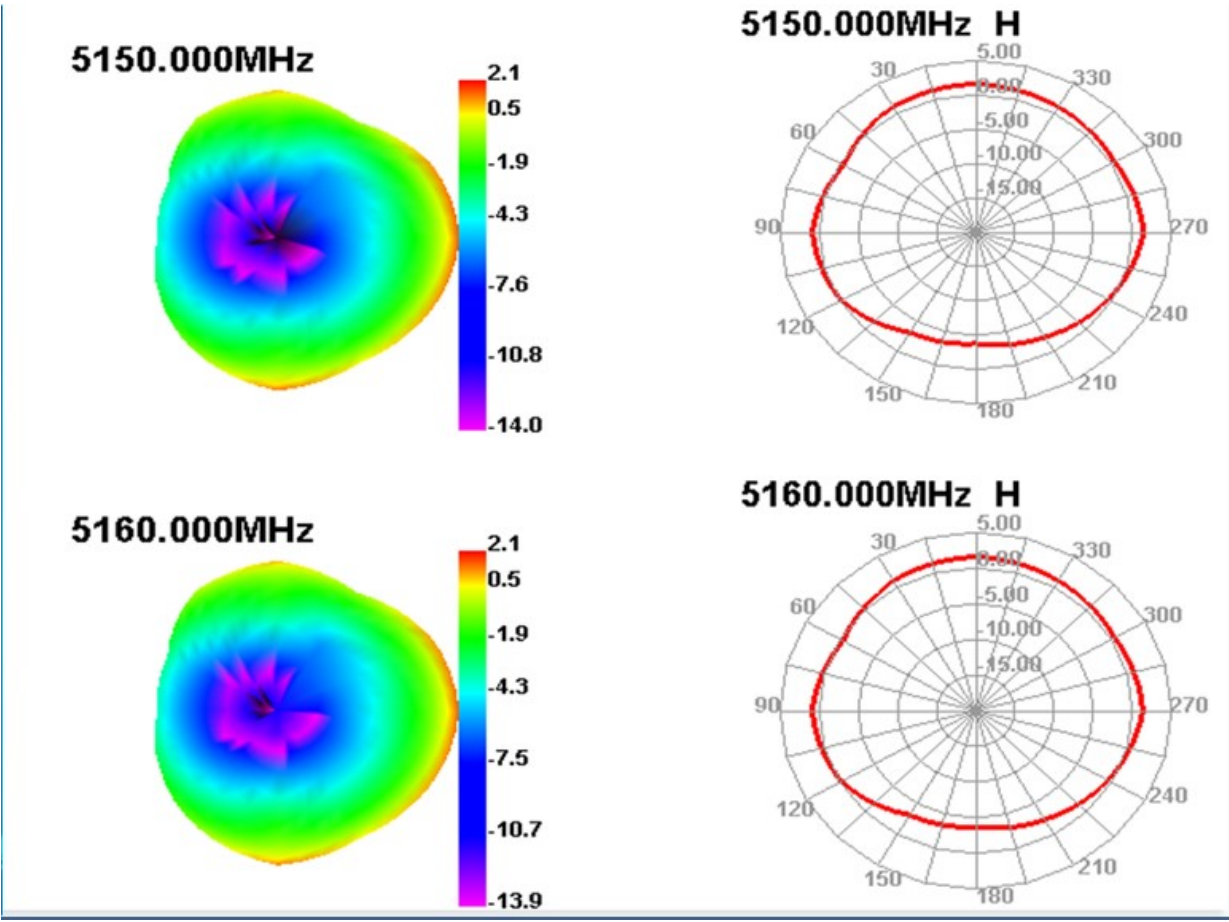
Passive Test For WIFI2.4										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	67.4	-1.71	1.48	-0.67	26.955	40.447	1.48	-21.09	47.51	47.63
2410	68.05	-1.67	1.64	-0.51	27.167	40.878	1.64	-19.88	47.34	47.64
2420	69.76	-1.56	1.9	-0.25	27.634	42.129	1.9	-18.58	47.27	47.45
2430	66.95	-1.74	1.77	-0.38	26.361	40.589	1.77	-18.57	47.09	47.44
2440	68.19	-1.66	1.81	-0.34	26.659	41.526	1.81	-18	47.25	47.56
2450	65.97	-1.81	1.78	-0.37	25.799	40.173	1.78	-17.74	47.42	47.77
2460	65.15	-1.86	1.97	-0.18	25.689	39.462	1.97	-17.55	47.67	47.91
2470	67.55	-1.7	2.09	-0.06	27.227	40.32	2.09	-17.62	47.7	48.04
2480	72.98	-1.37	2.82	0.67	29.728	43.255	2.82	-16.97	47.89	48.23
2490	82.28	-0.85	3.32	1.17	33.642	48.635	3.32	-16.63	48.1	48.34
2500	82.6	-0.83	3.49	1.34	33.32	49.277	3.49	-17.13	47.94	48.19



5GWIFI无源数据

Passive Test For WIFI5.8										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
5150	59.36	-2.26	2.08	-0.07	23.406	35.956	2.08	-13.98	56.04	56.11
5160	59.52	-2.25	2.09	-0.06	23.393	36.127	2.09	-13.91	55.94	55.86
5170	61.78	-2.09	2.32	0.17	24.118	37.661	2.32	-13.67	55.74	55.67
5180	66.9	-1.75	2.66	0.51	26.026	40.872	2.66	-12.71	56.03	55.65
5190	59.27	-2.27	2.18	0.03	22.927	36.344	2.18	-13.27	55.68	55.83
5200	59.23	-2.27	2.21	0.06	22.8	36.431	2.21	-13.74	55.87	55.81
5210	57.62	-2.39	2.13	-0.02	22.018	35.6	2.13	-14.48	55.94	55.96
5220	59.66	-2.24	2.27	0.12	22.764	36.901	2.27	-14.85	55.86	55.79
5230	57.05	-2.44	2.15	0	21.572	35.483	2.15	-15.19	55.99	55.84
5240	59.12	-2.28	2.27	0.12	22.126	36.989	2.27	-14.78	56.05	55.72
5250	60.04	-2.22	2.17	0.02	22.798	37.24	2.17	-15.17	55.81	55.6
5260	63.64	-1.96	2.41	0.26	24.227	39.414	2.41	-15.66	55.61	55.43
5270	65.3	-1.85	2.46	0.31	24.839	40.466	2.46	-15.8	55.78	55.36
5280	68.12	-1.67	2.58	0.43	26.071	42.05	2.58	-16.2	55.63	55.51
5290	67.04	-1.74	2.45	0.3	25.82	41.216	2.45	-16.91	55.97	55.74
5300	65.18	-1.86	2.38	0.23	25.194	39.982	2.38	-17.73	55.77	55.91
5310	63.63	-1.96	2.31	0.16	24.863	38.766	2.31	-19.16	56.17	56.1
5320	64.75	-1.89	2.5	0.35	25.673	39.082	2.5	-21.06	56.2	56.14
5330	58.89	-2.3	2.08	-0.07	23.398	35.494	2.08	-20.61	56.64	56.39
5340	60.62	-2.17	2.32	0.17	24.102	36.521	2.32	-20.39	56.47	56.34
5350	64.6	-1.9	2.63	0.48	25.834	38.767	2.63	-19.95	56.43	56.64
5360	64.74	-1.89	2.65	0.5	26.3	38.437	2.65	-20.63	56.34	56.36
5370	67.44	-1.71	2.84	0.69	27.67	39.772	2.84	-19.75	56.12	56.43
5380	64.11	-1.93	2.64	0.49	26.219	37.894	2.64	-19.55	55.97	56.11
5390	61.39	-2.12	2.41	0.26	25.301	36.09	2.41	-19.71	55.88	56.4
5400	73.55	-1.33	3.18	1.03	30.966	42.584	3.18	-19	56.99	57.12
5410	69.78	-1.56	2.95	0.8	29.59	40.187	2.95	-18.04	56.78	57.1
5420	59.04	-2.29	2.21	0.06	25.15	33.893	2.21	-17.65	56.82	57.07
5430	60.9	-2.15	2.37	0.22	26.161	34.737	2.37	-17.52	56.67	56.92
5440	53.53	-2.71	1.8	-0.35	23.195	30.334	1.8	-17.58	56.4	57.01
5450	57.82	-2.38	2.11	-0.04	25.329	32.494	2.11	-16.87	56.77	57.2
5460	54.15	-2.66	1.79	-0.36	23.844	30.304	1.79	-16.06	56.77	57.86
5470	57.99	-2.37	2.08	-0.07	25.848	32.142	2.08	-15.8	56.93	57.46
5480	55.99	-2.52	1.82	-0.33	25.227	30.759	1.82	-16.21	57.18	58.28
5490	54.4	-2.64	1.73	-0.42	24.735	29.667	1.73	-16.89	57.75	58.05
5500	58.27	-2.35	1.97	-0.18	26.748	31.521	1.97	-16.12	57.51	58.66

5510	56.06	-2.51	1.84	-0.31	25.81	30.253	1.84	-17.54	58.01	58.63
5520	58.72	-2.31	1.98	-0.17	27.225	31.493	1.98	-18.16	58.12	59.28
5530	56.51	-2.48	1.73	-0.42	26.58	29.934	1.73	-18	58.14	59.07
5540	50.84	-2.94	1.11	-1.04	24.173	26.665	1.11	-17.91	58.38	59.54
5550	55.26	-2.58	1.53	-0.62	26.105	29.151	1.53	-16.97	58.62	59.51
5560	53.75	-2.7	1.44	-0.71	25.467	28.287	1.44	-16.26	58.45	59.46
5570	56.13	-2.51	1.53	-0.62	27.03	29.097	1.53	-15.73	58.46	59.67
5580	56.65	-2.47	1.52	-0.63	27.479	29.166	1.52	-15.62	58.81	59.4
5590	58.17	-2.35	1.66	-0.49	28.041	30.128	1.66	-15.49	58.36	59.49
5600	60.31	-2.2	1.85	-0.3	29.072	31.237	1.85	-15.97	58.64	59.51
5610	67.51	-1.71	2.29	0.14	33.004	34.503	2.29	-15.65	58.68	59.72
5620	72.57	-1.39	2.61	0.46	35.68	36.892	2.61	-15.36	58.86	59.73
5630	68.57	-1.64	2.36	0.21	33.738	34.828	2.36	-15.53	58.61	60.11
5640	59.6	-2.25	1.75	-0.4	29.472	30.125	1.75	-16.49	59.03	59.48
5650	64.96	-1.87	2.14	-0.01	32.033	32.93	2.14	-16.02	58.72	59.67
5660	67.24	-1.72	2.22	0.07	33.177	34.065	2.22	-15.63	58.75	59.52
5670	71.52	-1.46	2.36	0.21	35.756	35.762	2.36	-15.17	58.69	59.35
5680	73.81	-1.32	2.45	0.3	37.105	36.709	2.45	-14.59	58.38	59.25
5690	69.48	-1.58	2.21	0.06	34.726	34.755	2.21	-14.77	58.39	59.33
5700	70.28	-1.53	2.37	0.22	34.962	35.317	2.37	-15.22	58.69	59.26
5710	70.1	-1.54	2.41	0.26	35.116	34.979	2.41	-15.83	58.69	59.44
5720	71.59	-1.45	2.46	0.31	36.081	35.511	2.46	-15.31	58.79	59.84
5730	72.81	-1.38	2.55	0.4	36.752	36.055	2.55	-15.23	58.98	59.61
5740	73.12	-1.36	2.59	0.44	36.741	36.383	2.59	-15.27	59.16	59.57
5750	67.87	-1.68	2.34	0.19	34.092	33.776	2.34	-14.72	58.87	59.81
5760	71.09	-1.48	2.59	0.44	35.987	35.106	2.59	-14.79	59.25	59.37
5770	65.86	-1.81	2.2	0.05	33.36	32.503	2.2	-14.92	58.49	59.49
5780	66.52	-1.77	2.26	0.11	33.573	32.946	2.26	-15.49	58.71	59.37
5790	58.65	-2.32	1.83	-0.32	29.59	29.057	1.83	-15.84	58.45	59.66
5800	65.7	-1.82	2.42	0.27	33.224	32.477	2.42	-17.01	58.86	59.22
5810	62.99	-2.01	2.24	0.09	31.804	31.181	2.24	-16.08	58.41	59.69
5820	71.22	-1.47	2.81	0.66	35.953	35.271	2.81	-16.63	59.04	59.38
5830	68.5	-1.64	2.69	0.54	34.734	33.77	2.69	-15.89	58.69	59.65
5840	71.22	-1.47	2.83	0.68	36.205	35.01	2.83	-15.96	58.84	59.65
5850	72.32	-1.41	2.83	0.68	36.573	35.744	2.83	-16.56	58.91	60.12

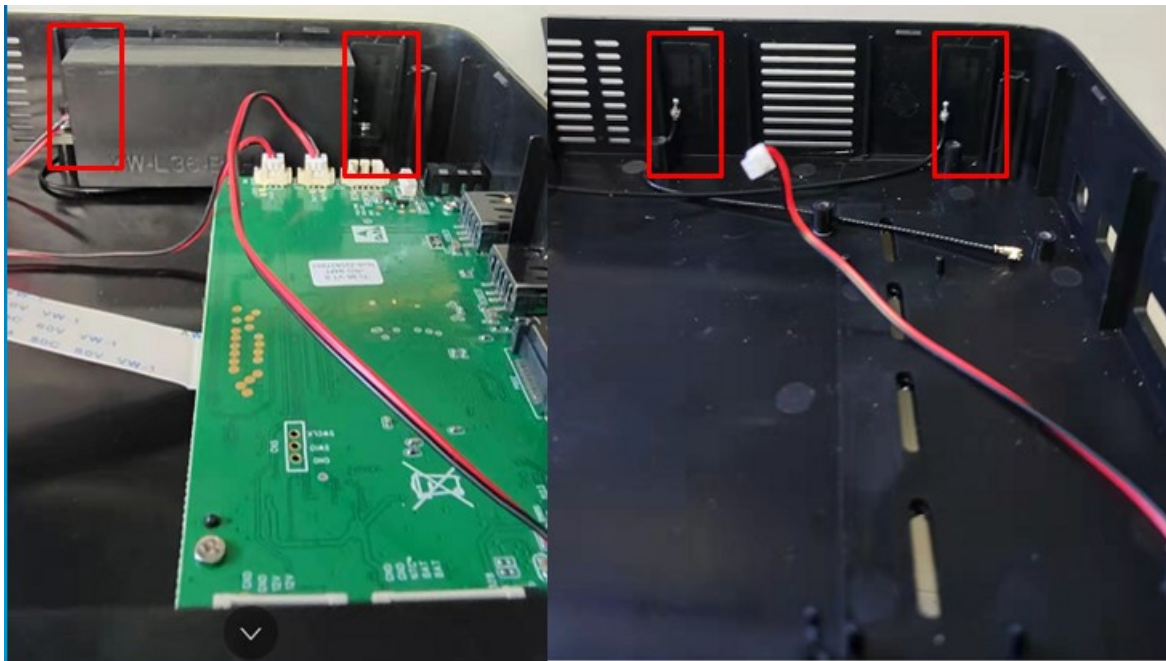


2.4G

Azimuths	Standard	Band	Channel	Frequency	Max	Total
Every30	WIFI (AP)	WIFI_B (11M)	1	2412	18.98	12.59
Every30	WIFI (AP)	WIFI_B (11M)	7	2442	18.35	11.83
Every30	WIFI (AP)	WIFI_B (11M)	13	2472	19.15	12.47
Every30	WIFI (AP)	WIFI_B (11M)	1	2412	-77.22	-72.34
Every30	WIFI (AP)	WIFI_B (11M)	7	2442	-79.74	-75.51
Every30	WIFI (AP)	WIFI_B (11M)	13	2472	-76.23	-58.98
Every30	WIFI (AP)	WIFI_G (54M)	1	2412	16.36	10.43
Every30	WIFI (AP)	WIFI_G (54M)	7	2442	15.19	9.19
Every30	WIFI (AP)	WIFI_G (54M)	13	2472	16.85	10.64
Every30	WIFI (AP)	WIFI_G (54M)	1	2412	-53.37	-64.34
Every30	WIFI (AP)	WIFI_G (54M)	7	2442	-52.29	-67.61
Every30	WIFI (AP)	WIFI_G (54M)	13	2472	-51.16	-65.17
Every30	WIFI (AP)	WIFI_N_ISM (6.5M)	1	2412	15.54	11.29
Every30	WIFI (AP)	WIFI_N_ISM (6.5M)	7	2442	16.53	10.96
Every30	WIFI (AP)	WIFI_N_ISM (6.5M)	13	2472	16.49	10.31
Every30	WIFI (AP)	WIFI_N_ISM (6.5M)	1	2412	-54.71	-67.24
Every30	WIFI (AP)	WIFI_N_ISM (6.5M)	7	2442	-53.69	-63.89
Every30	WIFI (AP)	WIFI_N_ISM (6.5M)	13	2472	-53.07	-65.8

5GWIFI有源数据

Measurement	Azimuths	Elevations	Standard	Band	Channel	Frequency	Max	Total
TRP	Every30	Every30	WIFI (AP)	WIFI_G (54M)	149	5745	16.36	10.43
TRP	Every30	Every30	WIFI (AP)	WIFI_G (54M)	157	5785	15.19	9.19
TRP	Every30	Every30	WIFI (AP)	WIFI_G (54M)	165	5825	16.85	10.64
TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_G (54M)	149	5745	-70.68	-54.71
TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_G (54M)	157	5785	-71.26	-53.69
TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_G (54M)	165	5825	-71.03	-53.07
TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	149	5745	17.25	11.27
TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	157	5785	16.85	10.08
TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	165	5825	16.98	10.17
TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	149	5745	-70.68	-67.24
TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	157	5785	-69.96	-63.89
TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	165	5825	-71.03	-65.8
TRP	Every30	Every30	WIFI (AP)	WIFI_N_ISM (6.5M)	149	5745	15.54	11.29
TRP	Every30	Every30	WIFI (AP)	WIFI_N_ISM (6.5M)	157	5785	16.53	10.96
TRP	Every30	Every30	WIFI (AP)	WIFI_N_ISM (6.5M)	165	5825	16.49	10.31
TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_N_ISM (6.5M)	149	5745	-71.25	-68.34
TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_N_ISM (6.5M)	157	5785	-73.19	-70.61
TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_N_ISM (6.5M)	165	5825	-71.36	-69.17



如图所示：红框内
是天线位置图

3.1 MECHANICAL CONFIGURATION

The appearance of the antenna is in accordance with drawing 40-SZ2618Q-01

3.2 CONNECTOR TYPE

The connector type is an embedded type.

FIGURE 2:Antenna Configuration

4.0 ENVIRONMENTAL SPECIFICATIONS

环境处理： **wu**

4.1 TEMPERATURE

Operating Temperature Range: -40°C~ +85°C

Storage Temperature Range: -40°C~ +120°C

4.2 SALT SPRAY TEST

Antenna be exposed in a 35°C, 5% salt fog chamber for 24 hours then check the appearance and performance against the specifications in normal temperature.

4.3 STATIC HUMIDITY TEST

The antenna is subjected to the following test:

Temperatures: +70°C and 90%--95%RH

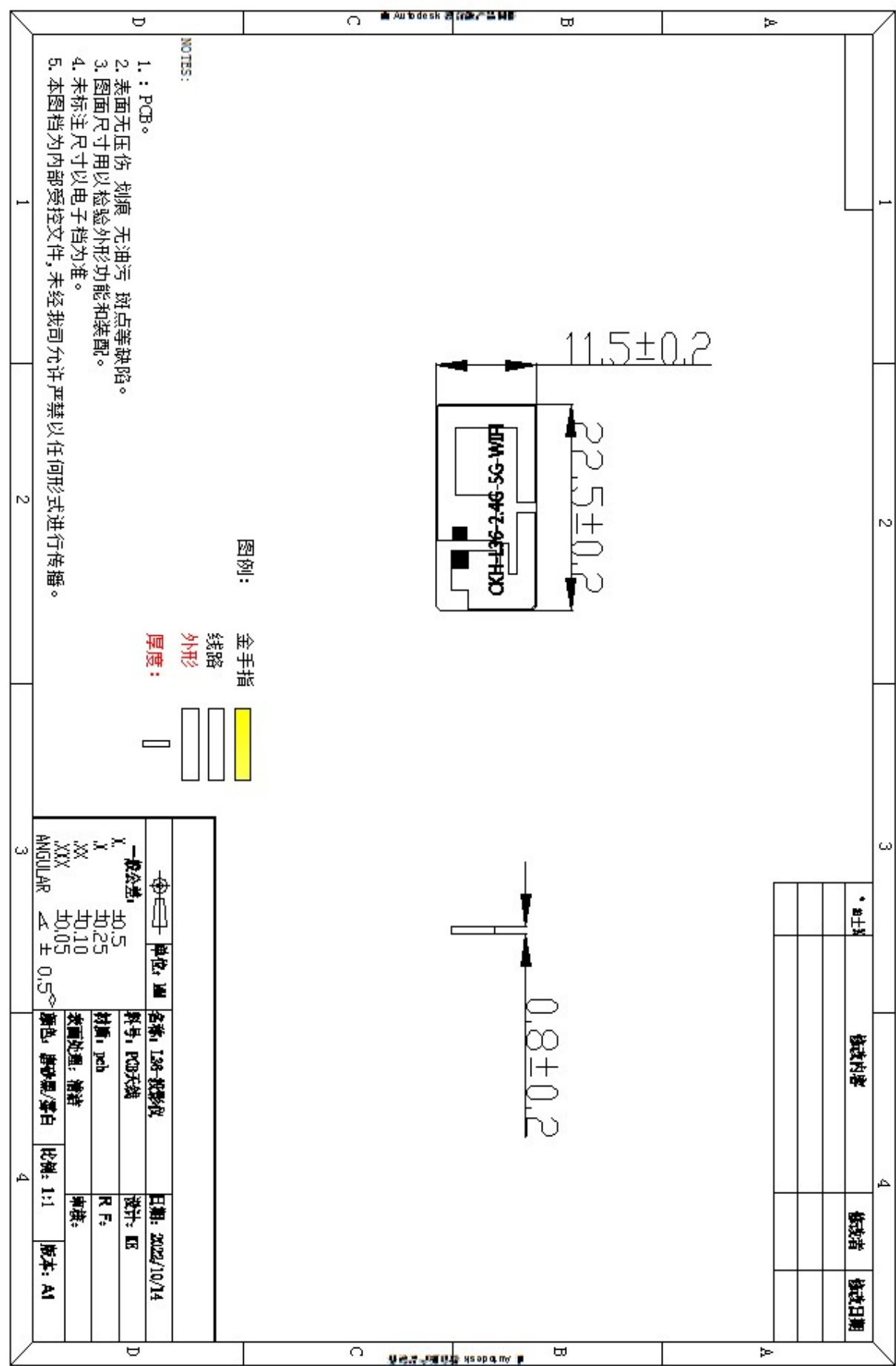
Test Duration: 24 Hours

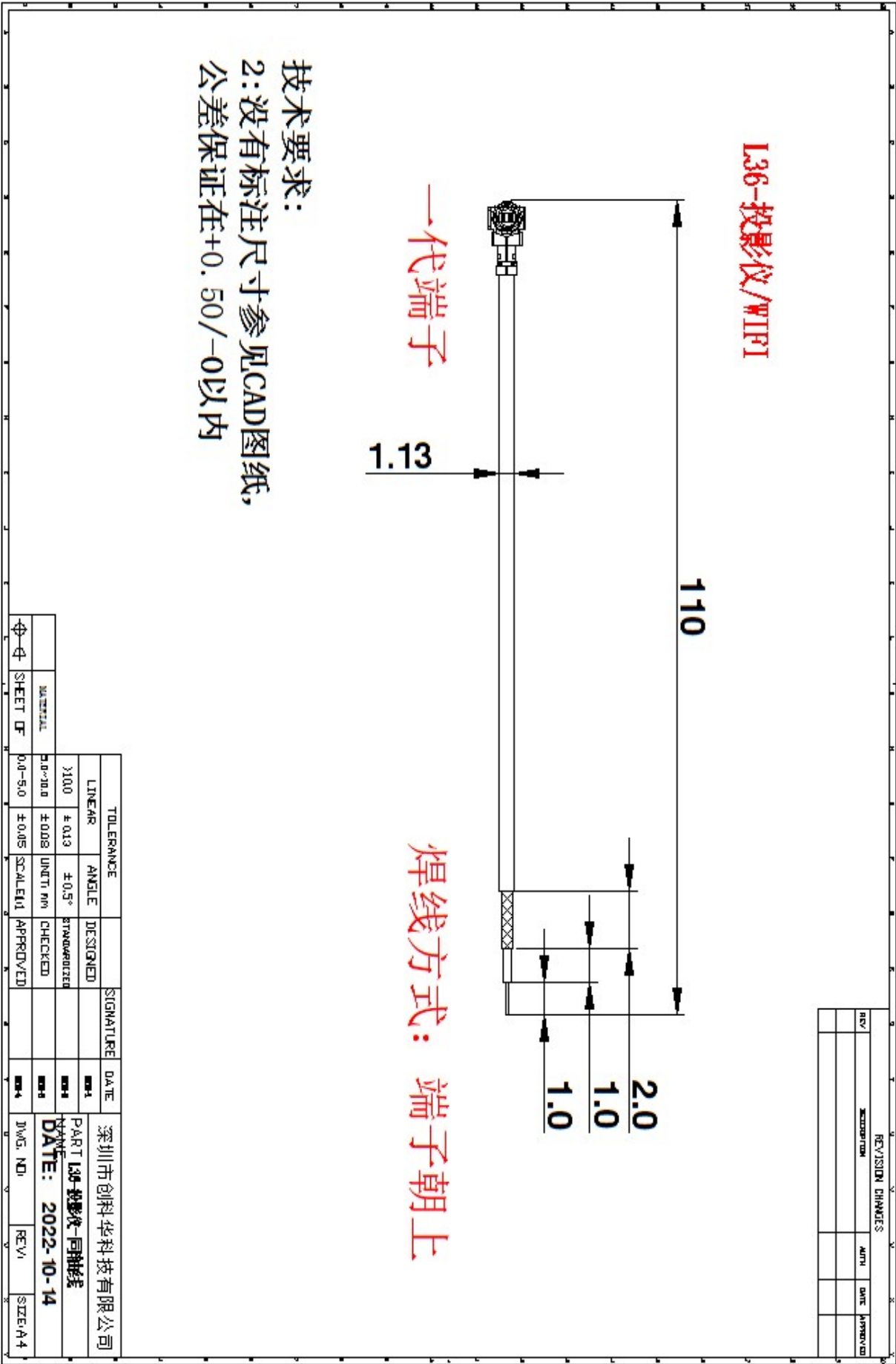
The antenna should not undergo any structural or functional change and remain within the electrical/mechanical specification.

5.0 PACKAGING

The antennas will be packed in bags, There are 100 or 200 antennas per bag. The bags are packed in corrugated fibreboard over box.

天线图纸:





	1	2	3	4
A				
B				
C				
D				

3M背胶

Technical drawing of a rectangular label. The width is dimensioned as 22.5±0.2 mm. The height is dimensioned as 11.5±0.2 mm. The corners are rounded with a radius dimensioned as R0.5±0.2 mm.

NOTES:

1. : PCB。
2. 表面无压伤、划痕、无油污、斑点等缺陷。
3. 图面尺寸用以检验外形功能和装配。
4. 未标注尺寸以电子档为准。
5. 本图档为内部受控文件，未经我司允许严禁以任何形式进行传播。

一般公差		名称: 138-投影仪		日期: 2023/10/14	
X	±0.5	料号: 3M背胶	设计: EE		
Y	±0.25	材质: pcb	R F ₂		
.XX	±0.10	表面处理: 清漆	审核:		
.XXX	±0.05	颜色: 磨砂黑/空白	比例: 1:1		版本: A1
ANGULAR	± 0.5°				