编码(Coding)：JK/JXD260807006

南京时恒电子科技有限公司

Nanjing Shiheng Electronics Co.,Ltd.

产品承认书

APPROVAL SHEET

客户名称 CUSTOMER：	
产品名称 PART NAME：	MF52 测温型 NTC 热敏电阻器 MF52 Series Temp Measurement NTC Thermistor
产品型号 PART NUMBER：	MF52A 103J3470（A1）
版次 REV.NO：	C0
日期 DATE：	2026-08-07

南京时恒电子科技有限公司
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变更登记表

REVISED RECORD SHEET

版次 REV. NO	变更日期 REV.DATE	变更内容 CHANGE CONTENT	申请人 APPLICANT	批准人 APPROVED
A0	2015/10/11	版本制定。 Version formulation.	鞠晓丽	李少媛
B0	2022/4/1	更新规格书版本格式，增加版次管控，细化规格纸。 Update for version form of data sheet, add to management and control for number of edition, refine to PN and draw.	吴迎丽	李少媛
C0	2025/12/01	更新规格书版本格式，去掉：产品图纸此一页的变更履历表。 Update for version form of data sheet, Remove: Change history table on this page of the product drawing.	刘星月	李少媛

1、产品型号说明 Product model specification

MF52	A	103	J	3470	(A1)
①	②	③	④	⑤	⑥

① MF52：测温型 NTC 热敏电阻器系列 (Series Temp Measurement NTC Thermistor)

② A：指引线为镀锡线 (Refers to tinned lead)

③ 103：25℃的零功率电阻值 10kΩ (Zero Power Resistance at 25℃is 10kΩ)

④ J：阻值精度代码 F-±1% G-±2% H-±3% J-±5% (Resistance precision code F-±1% G-±2% H-±3% J-±5%)

⑤ 3470：$B_{25/50}$ 值 3470K ($B_{25/50}$:3470K)

⑥ (A1)：线材规格：引线外径Φ0.3mm (Wire dimension: The outer diameter of lead wire is Φ0.3mm)

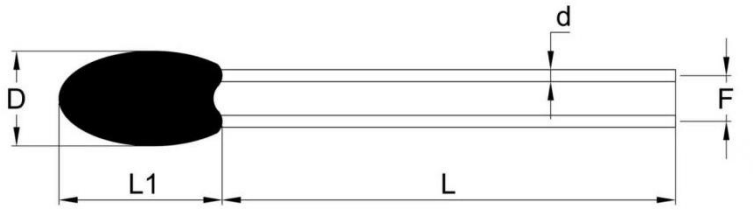
2、电气性能 Electrical Characteristics

No.	项目 Item	符号 Symbol	测试条件 Test conditions	单位 Unit	性能要求 Requirements
2.1	25℃的零功率电阻值 Zero Power Resistance at 25℃	R_{25}	Ta=25±0.01℃ (测试功率≤0.1mW 油槽中测试) (Test Power≤0.1mW，In the oil tank)	kΩ	10kΩ±5%
2.2	B 值 B-value	$B_{25/50}$	$B=[(T_a\times T_b)/(T_b-T_a)]\times \ln(R_a/R_b)$ T_a=25±0.01℃ T_b=50±0.01℃	K	3470K±1%
2.5	耗散系数 Thermal dissipation Coefficient	δ	静止空气中 In still air	mW/℃	约 2
2.6	时间常数 Thermal time constant	τ	静止空气中 In still air	sec	约 12
2.8	绝缘电阻 Insulation resistance	/	100V/DC 1min	MΩ	≥100
2.9	工作温度范围 Operating temperature range	/	/	℃	-55 ~ 125
2.10	最大额定功率 Maximum rated power	Pmax	/	mW	50
2.11	阻温特性 R&T-table	/	/	/	见附表 I See attached table I
2.12	阻值误差&B 值误差 Resistance tolerance& B-value tolerance	/	/	/	见附表 II See attached table II

3、产品图纸 Product drawing

产品图纸 Product drawing		客户确认 Customer confirm	客户名称 Customer：			
			确认 Confirm		日期 DATE	
产品型号 MODEL NO.	MF52A 103J3470(A1)		审核 Approve:		日期 DATE	

尺寸 Dimensions： （Unit：mm）



DMax	L1Max	LMin	d±0.05	F±0.5
2.5	4.0	25	0.3	1.7

技术要求 Technical requirements：

1) 零功率阻值：R_{25}：10kΩ ±5% (Zero Power Resistance: R_{25}：10kΩ ±5%)；
2) $B_{25/50}$ 数值：3470K±1% (B-value:$B_{25/50}$: 3470K±1%)；
3) 线材： φ0.3 镀锡铜包钢线 (Φ0.3 tinned copper-weld steel wire)；
4) 封装：黑色环氧树脂包封 (Black Epoxy)；
5) 符合 RoHS 环保要求 (Meet environmental protection requirements:RoHS)。

4、可靠性 Reliability

No.	项目 Test Item	试验标准 Test Standard	试验条件及方法 Test Conditions / Methods	性能要求 Acceptance Criteria
4.1	引出端强度 Terminal strength	IEC60068-2-21	固定电阻端，拉力：5±1 N，时间：10±1 秒 Fixed resistor end, Pull strength: 5±1 N, time: 10±1 sec	无可见性损伤 No obvious damage $\|\Delta R_{25}/R_{25}\|\leqslant 2\%$
4.2	可焊性 Solder ability	IEC60068-2-20	温度：245±5℃，时间：2-3 秒 temperature: 245±5℃, for 2-3 sec	着锡面积≥95% Coverage area≥95%
4.3	耐焊接热 Withstand weiling temp	IEC60068-2-20	锡锅温度：260±5℃，浸入深度距电阻体 6mm，时间 5±1 秒 Temperature of tin pot: 260±5℃, insert deepth from body of resistance 6mm, time 5±1 senconds	无可见性损伤 No obvious damage $\|\Delta R_{25}/R_{25}\|\leqslant 2\%$
4.4	稳态湿热 Steady humidity and heat	IEC60068-2-78	温度：40℃±2℃，湿度：93±2%，时间：500 小时 Temp: 40℃±2℃, humidity: 93±2%, Time: 500 hrs	无可见性损伤 No obvious damage $\|\Delta R_{25}/R_{25}\|\leqslant 2\%$
4.5	温度快速变化 Rapid changes in temperature	IEC60068-2-14	-55℃ 30min→25℃ 5min→125℃ 30min→25℃ 5min, 5 cycles	无可见性损伤 No obvious damage $\|\Delta R_{25}/R_{25}\|\leqslant 2\%$
4.6	高温储存 High temperature storage	IEC60068-2-2	温度：125℃±5℃ 时间：1000 小时 Temp: 125℃±5℃, Time: 1000 hrs	无可见性损伤 No obvious damage $\|\Delta R_{25}/R_{25}\|\leqslant 2\%$
4.7	低温储存 Low temperature storage	IEC60068-2-1	温度：-55℃，时间：1000 小时 Temp: -55℃, Time: 1000 hrs	无可见性损伤 No obvious damage $\|\Delta R_{25}/R_{25}\|\leqslant 2\%$

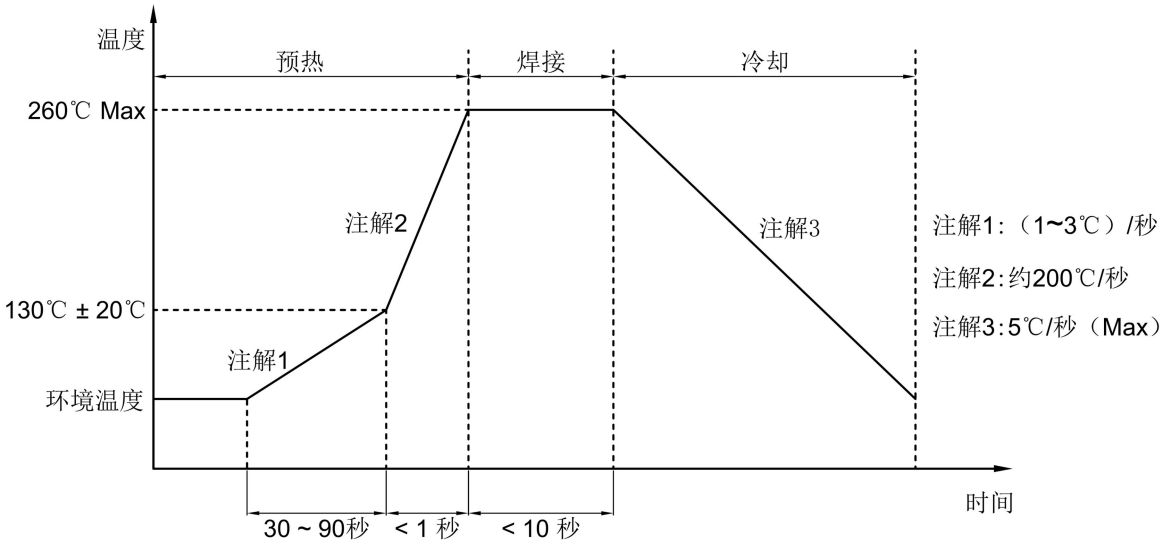
▲注： 1）稳态湿热及温度快速变化试验结束后，样品需在常温环境下静置 2 小时后再做性能测试；

▲Note：1）After the test of steady-state humid heat and rapid temperature change, the sample should be kept for 2 hours at room temperature before performance test；

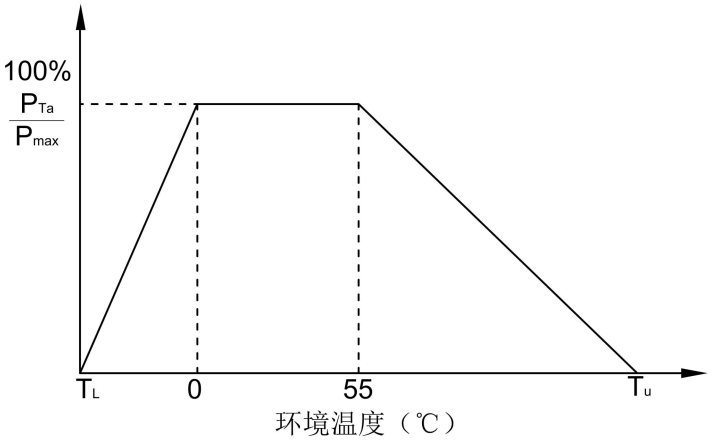
2）高温存储结束后，需随测试环境自然恢复至常温，再取出做性能测试。

2）After the test of high-temperature storage is complete, and then take it out for performance test when the test environment naturally regain to normal temperature.

5、推荐波峰焊曲线 Recommended wave soldering profile



6、降功耗曲线 Power Derating Curve



例如：
环境温度（T_a）=90℃
最大工作温度(T_u)=125℃
For example:
Ambient temperature（T_a）=90℃
Maximum operating temperature（T_u）=125℃

$$P_{Ta} = \frac{T_u - T_a}{T_u - 55} \times P_{max} = 50\%P_{max}$$

7、产品包装 Product packaging

7.1 包装方式 Packing Type

☑ 散装方式 Bulk Type　　☐编编带方式 Reel Type

7.2 包装规格 Packing specification

No.	包装规格 Packing specification	包装材料、尺寸 Packing material, size	产品数量 Quantity
1	包装袋 Packing bag	自封口袋(self sealing bag) W×H=11cm×12cm	
2	编编带包装盒 reel packing box	包装盒 packing box W×G×H=335mm×240mm×50mm	

8、安装&使用注意事项 Installation & Use precautions

8.1 本产品的用途：温度测量与控制；
Usage of this product: Temperature measurement and control；
8.2 避免过大的电流引起元件自身发热而产生测量误差；
To avoid of testing tolerance caused by huge current upon the self-heat of component；
8.3 烙铁焊接时，焊接处距包封头部距离至少 2mm，焊接温度应低于 360℃，焊接时间＜3ses；
When soldering by soldering iron, the distance between the welding place and the coating head should be at least 2mm, the welding temperature should be lower than 360℃, and the welding time should be less than 3sec;
8.4 储存温度：-10℃～40℃；储存湿度：≤75% RH；
Storage temperature: -10℃～40℃; storage humidity: ≤75% RH；
8.5 避免存放在具有腐蚀性气体及光照的环境下；
To avoid of leaving with such environment as corrosive gases and illumination；
8.6 包装打开后需重新密封保存，贮存期 1 年，超过贮存期，可按本标准规定的项目重新检验，如符合要求仍可使用；
The packing need to be resealed since opened, storage period 1 year once valid, it should be retest according to regulated of criterion and can be still used if meet the requirement；
8.7 如在加工过程中需使用热缩管，热缩管热缩时不可使用电吹风进行吹制，建议热缩工艺，将套好热缩管后的产品放入恒温烘箱中，按 110℃/10-12min 进行热缩；
If the heat shrinkable tube is used in the manufacturing process, do not use a hair dryer to shrink the tube. This is a recommended heat shrinkable process that puts the product covered shrinkable tube into a constant temperature oven, and shrink them at 110℃/10 ~ 12min；
8.8 对于 MF52A、B、C、D 等型号的测温型 NTC 热敏电阻器，其均为径向引出线结构，不得将其两引线拉成 180° 轴向使用；
For the MF52A, B, C, D Type NTC thermistors, they are all radial lead-out structure, shall not be used to pull its two leads into 180° axial；
8.9 芯片为陶瓷半导体，在使用过程中避免挤压或对环氧端头物理撞击，以免造成产品损伤。
The core chip of the product is a ceramic semiconductor. Avoid extrusion or physical impact on the epoxy end in the process of use, so as not to cause product damage。

8、产品认证 Product certification

No.	项目 Projects	产品认证 Product certification
8.1	质量管理体系认证 Quality Management System Certification	ISO9001:2015
		IATF16949：2016
8.2	环境管理体系认证 Environmental Management System Certification	ISO14001:2015
8.3	知识产权管理体系认证 Intellectual Property Management System Certification	GB/T29490-2013
8.4	环保检测报告 Environmental test report	RoHS 2.0
8.5	CQC 认证（CQC07001019009） CQC certificate（CQC07001019009）	
8.6	TUV 认证（R50245892） TUV certificate（R50245892）	
8.7	UL/cUL 认证（E240991） UL/cUL certificate（E240991）	

附表 I Attachment I

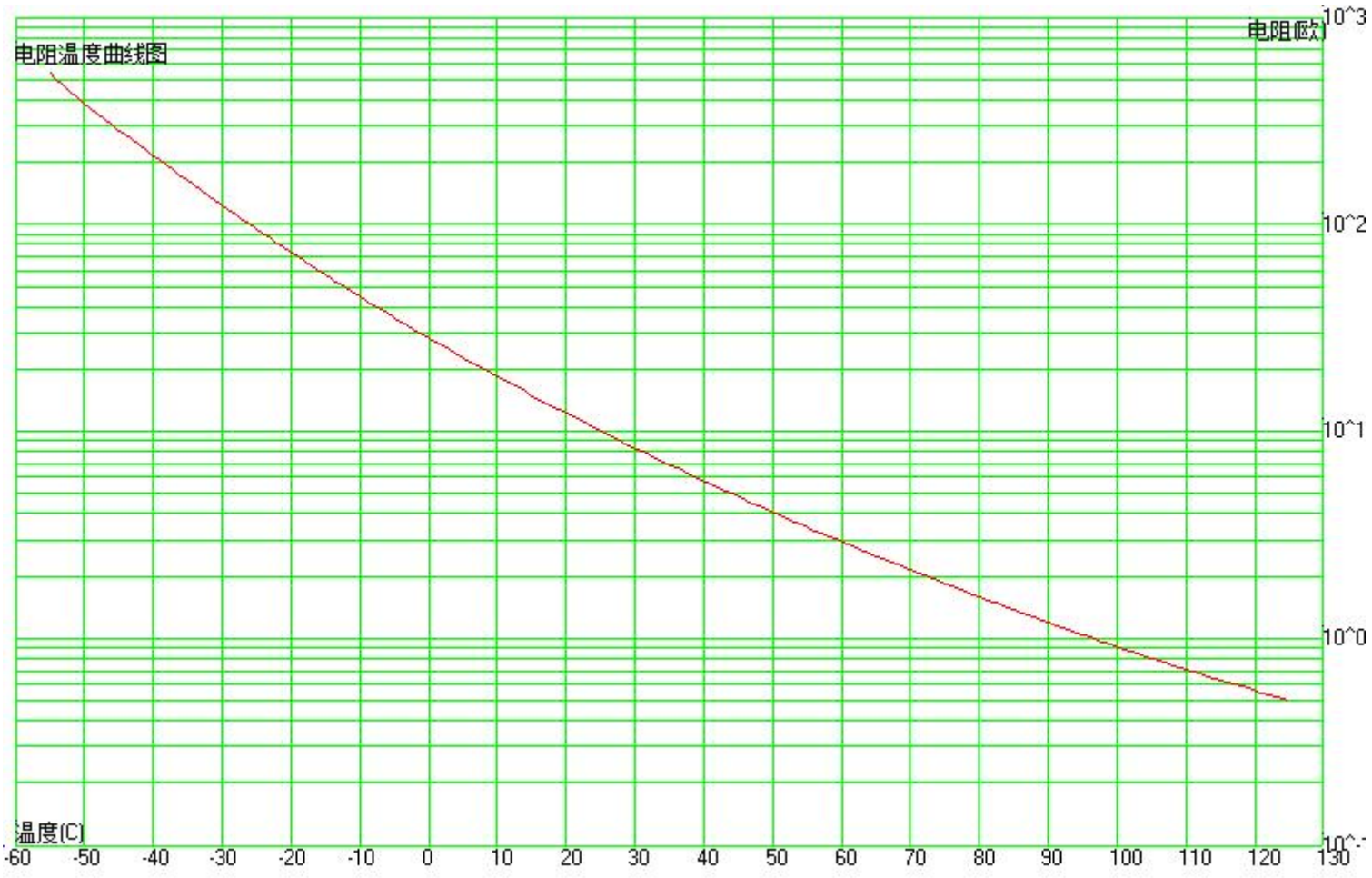
南京时恒电子科技有限公司							
R_{25}=10KΩ 精度:±5% $B_{25/50}$=3470K 精度:±1%（P175-9）							
温度(℃)	电阻(kΩ)			电阻精度(%)		温度精度(℃)	
	最小值	中心值	最大值	△R	-△R	△T	-△T
-55	488.372	536.6	584.827	8.987	-8.987	1.32	-1.32
-54	454.763	499.276	543.788	8.915	-8.915	1.323	-1.323
-53	424.782	466.006	507.23	8.846	-8.846	1.326	-1.326
-52	397.786	436.072	474.357	8.779	-8.779	1.328	-1.328
-51	373.28	408.918	444.556	8.715	-8.715	1.329	-1.329
-50	350.874	384.109	417.344	8.652	-8.652	1.331	-1.331
-49	330.264	361.304	392.344	8.591	-8.591	1.332	-1.332
-48	311.206	340.231	369.255	8.53	-8.53	1.333	-1.333
-47	293.507	320.673	347.839	8.471	-8.471	1.334	-1.334
-46	277.01	302.456	327.901	8.412	-8.412	1.334	-1.334
-45	261.59	285.438	309.286	8.354	-8.354	1.335	-1.335
-44	247.141	269.502	291.864	8.297	-8.297	1.335	-1.335
-43	233.577	254.552	275.528	8.24	-8.24	1.336	-1.336
-42	220.825	240.506	260.188	8.183	-8.183	1.336	-1.336
-41	208.824	227.295	245.767	8.126	-8.126	1.336	-1.336
-40	197.52	214.86	232.199	8.07	-8.07	1.337	-1.337
-39	186.866	203.146	219.426	8.014	-8.014	1.337	-1.337
-38	176.82	192.108	207.396	7.958	-7.958	1.337	-1.337
-37	167.346	181.705	196.063	7.902	-7.902	1.338	-1.338
-36	158.408	171.897	185.385	7.846	-7.846	1.338	-1.338
-35	149.977	162.649	175.322	7.791	-7.791	1.338	-1.338
-34	142.022	153.93	165.839	7.736	-7.736	1.339	-1.339
-33	134.517	145.71	156.902	7.681	-7.681	1.339	-1.339
-32	127.437	137.958	148.48	7.626	-7.626	1.339	-1.339
-31	120.757	130.65	140.543	7.571	-7.571	1.34	-1.34
-30	114.456	123.76	133.063	7.517	-7.517	1.34	-1.34
-29	108.511	117.263	126.015	7.463	-7.463	1.34	-1.34
-28	102.902	111.137	119.372	7.409	-7.409	1.34	-1.34
-27	97.611	105.362	113.112	7.356	-7.356	1.341	-1.341
-26	92.618	99.915	107.213	7.303	-7.303	1.341	-1.341
-25	87.908	94.78	101.651	7.25	-7.25	1.341	-1.341
-24	83.462	89.936	96.409	7.197	-7.197	1.341	-1.341
-23	79.267	85.367	91.467	7.145	-7.145	1.341	-1.341
-22	75.306	81.056	86.806	7.093	-7.093	1.342	-1.342
-21	71.567	76.989	82.411	7.042	-7.042	1.342	-1.342
-20	68.036	73.15	78.264	6.991	-6.991	1.342	-1.342
-19	64.701	69.526	74.352	6.94	-6.94	1.342	-1.342
-18	61.55	66.105	70.659	6.889	-6.889	1.342	-1.342
-17	58.572	62.873	67.173	6.839	-6.839	1.342	-1.342
-16	55.758	59.819	63.881	6.789	-6.789	1.342	-1.342

-15	53.096	56.934	60.771	6.74	-6.74	1.342	-1.342
-14	50.579	54.206	57.833	6.691	-6.691	1.341	-1.341
-13	48.197	51.626	55.055	6.642	-6.642	1.341	-1.341
-12	45.942	49.185	52.428	6.593	-6.593	1.341	-1.341
-11	43.807	46.876	49.944	6.545	-6.545	1.341	-1.341
-10	41.786	44.69	47.593	6.497	-6.497	1.34	-1.34
-9	39.87	42.619	45.368	6.45	-6.45	1.34	-1.34
-8	38.054	40.658	43.261	6.403	-6.403	1.339	-1.339
-7	36.333	38.799	41.265	6.356	-6.356	1.339	-1.339
-6	34.7	37.037	39.374	6.309	-6.309	1.338	-1.338
-5	33.15	35.365	37.581	6.263	-6.263	1.337	-1.337
-4	31.68	33.78	35.88	6.217	-6.217	1.337	-1.337
-3	30.283	32.275	34.267	6.172	-6.172	1.336	-1.336
-2	28.957	30.847	32.736	6.126	-6.126	1.335	-1.335
-1	27.696	29.49	31.283	6.081	-6.081	1.334	-1.334
0	26.413	28.11	29.806	6.033	-6.033	1.337	-1.337
1	25.359	26.975	28.592	5.992	-5.992	1.332	-1.332
2	24.275	25.811	27.346	5.948	-5.948	1.331	-1.331
3	23.244	24.703	26.162	5.904	-5.904	1.33	-1.33
4	22.263	23.649	25.035	5.86	-5.86	1.329	-1.329
5	21.329	22.646	23.964	5.817	-5.817	1.327	-1.327
6	20.439	21.691	22.944	5.774	-5.774	1.326	-1.326
7	19.591	20.782	21.973	5.731	-5.731	1.325	-1.325
8	18.783	19.916	21.049	5.689	-5.689	1.323	-1.323
9	18.013	19.091	20.169	5.646	-5.646	1.322	-1.322
10	17.279	18.305	19.33	5.604	-5.604	1.32	-1.32
11	16.578	17.555	18.531	5.562	-5.562	1.318	-1.318
12	15.91	16.84	17.769	5.521	-5.521	1.317	-1.317
13	15.272	16.158	17.043	5.479	-5.479	1.315	-1.315
14	14.663	15.507	16.35	5.438	-5.438	1.313	-1.313
15	14.082	14.886	15.689	5.397	-5.397	1.311	-1.311
16	13.527	14.292	15.058	5.357	-5.357	1.309	-1.309
17	12.996	13.726	14.456	5.316	-5.316	1.306	-1.306
18	12.49	13.185	13.881	5.276	-5.276	1.304	-1.304
19	12.005	12.669	13.332	5.236	-5.236	1.301	-1.301
20	11.542	12.175	12.808	5.196	-5.196	1.297	-1.297
21	11.099	11.703	12.306	5.157	-5.157	1.293	-1.293
22	10.676	11.252	11.828	5.117	-5.117	1.288	-1.288
23	10.271	10.82	11.37	5.078	-5.078	1.279	-1.279
24	9.883	10.408	10.932	5.039	-5.039	1.256	-1.256
25	9.5	10	10.5	5	-5	1.254	-1.254
26	9.15	9.635	10.12	5.037	-5.037	1.36	-1.36
27	8.803	9.273	9.744	5.075	-5.075	1.355	-1.355
28	8.471	8.927	9.384	5.113	-5.113	1.365	-1.365
29	8.153	8.596	9.038	5.151	-5.151	1.38	-1.38
30	7.849	8.278	8.708	5.188	-5.188	1.396	-1.396

31	7.557	7.974	8.391	5.226	-5.226	1.413	-1.413
32	7.278	7.683	8.087	5.263	-5.263	1.43	-1.43
33	7.011	7.403	7.796	5.3	-5.3	1.448	-1.448
34	6.755	7.136	7.517	5.337	-5.337	1.466	-1.466
35	6.509	6.879	7.249	5.374	-5.374	1.485	-1.485
36	6.274	6.633	6.992	5.41	-5.41	1.503	-1.503
37	6.049	6.397	6.745	5.446	-5.446	1.522	-1.522
38	5.832	6.171	6.509	5.482	-5.482	1.54	-1.54
39	5.625	5.953	6.282	5.518	-5.518	1.559	-1.559
40	5.426	5.745	6.064	5.554	-5.554	1.578	-1.578
41	5.235	5.545	5.855	5.589	-5.589	1.598	-1.598
42	5.051	5.353	5.654	5.625	-5.625	1.617	-1.617
43	4.876	5.168	5.461	5.66	-5.66	1.636	-1.636
44	4.707	4.991	5.275	5.695	-5.695	1.656	-1.656
45	4.544	4.821	5.097	5.729	-5.729	1.676	-1.676
46	4.388	4.657	4.925	5.764	-5.764	1.695	-1.695
47	4.239	4.5	4.761	5.798	-5.798	1.715	-1.715
48	4.095	4.349	4.602	5.832	-5.832	1.735	-1.735
49	3.957	4.203	4.45	5.866	-5.866	1.755	-1.755
50	3.824	4.064	4.303	5.9	-5.9	1.775	-1.775
51	3.696	3.929	4.162	5.934	-5.934	1.795	-1.795
52	3.573	3.8	4.027	5.967	-5.967	1.816	-1.816
53	3.455	3.675	3.896	6.001	-6.001	1.836	-1.836
54	3.341	3.556	3.77	6.034	-6.034	1.857	-1.857
55	3.232	3.44	3.649	6.067	-6.067	1.877	-1.877
56	3.126	3.329	3.532	6.099	-6.099	1.898	-1.898
57	3.025	3.222	3.42	6.132	-6.132	1.919	-1.919
58	2.927	3.12	3.312	6.165	-6.165	1.94	-1.94
59	2.833	3.02	3.208	6.197	-6.197	1.961	-1.961
60	2.743	2.925	3.107	6.229	-6.229	1.982	-1.982
61	2.655	2.833	3.01	6.261	-6.261	2.003	-2.003
62	2.571	2.744	2.917	6.293	-6.293	2.024	-2.024
63	2.49	2.658	2.827	6.325	-6.325	2.045	-2.045
64	2.412	2.576	2.74	6.356	-6.356	2.067	-2.067
65	2.337	2.496	2.656	6.388	-6.388	2.088	-2.088
66	2.264	2.42	2.575	6.419	-6.419	2.11	-2.11
67	2.194	2.346	2.497	6.45	-6.45	2.131	-2.131
68	2.127	2.274	2.422	6.481	-6.481	2.153	-2.153
69	2.062	2.205	2.349	6.512	-6.512	2.175	-2.175
70	1.999	2.139	2.279	6.542	-6.542	2.197	-2.197
71	1.938	2.074	2.211	6.573	-6.573	2.219	-2.219
72	1.88	2.012	2.145	6.603	-6.603	2.241	-2.241
73	1.823	1.953	2.082	6.633	-6.633	2.263	-2.263
74	1.768	1.895	2.021	6.664	-6.664	2.285	-2.285
75	1.716	1.839	1.962	6.693	-6.693	2.308	-2.308
76	1.665	1.785	1.905	6.723	-6.723	2.33	-2.33

77	1.616	1.733	1.85	6.753	-6.753	2.353	-2.353
78	1.568	1.682	1.796	6.783	-6.783	2.375	-2.375
79	1.522	1.634	1.745	6.812	-6.812	2.398	-2.398
80	1.478	1.587	1.695	6.841	-6.841	2.421	-2.421
81	1.435	1.541	1.647	6.87	-6.87	2.444	-2.444
82	1.394	1.497	1.6	6.899	-6.899	2.467	-2.467
83	1.354	1.454	1.555	6.928	-6.928	2.49	-2.49
84	1.315	1.413	1.512	6.957	-6.957	2.513	-2.513
85	1.278	1.374	1.469	6.985	-6.985	2.536	-2.536
86	1.241	1.335	1.429	7.014	-7.014	2.56	-2.56
87	1.206	1.298	1.389	7.042	-7.042	2.583	-2.583
88	1.173	1.262	1.351	7.07	-7.07	2.607	-2.607
89	1.14	1.227	1.314	7.098	-7.098	2.63	-2.63
90	1.108	1.193	1.278	7.126	-7.126	2.654	-2.654
91	1.078	1.161	1.244	7.154	-7.154	2.678	-2.678
92	1.048	1.129	1.21	7.182	-7.182	2.702	-2.702
93	1.019	1.098	1.178	7.209	-7.209	2.726	-2.726
94	0.992	1.069	1.146	7.236	-7.236	2.75	-2.75
95	0.965	1.04	1.116	7.264	-7.264	2.775	-2.775
96	0.939	1.013	1.087	7.291	-7.291	2.799	-2.799
97	0.914	0.986	1.058	7.317	-7.317	2.823	-2.823
98	0.889	0.96	1.03	7.344	-7.344	2.848	-2.848
99	0.866	0.935	1.004	7.371	-7.371	2.873	-2.873
100	0.843	0.911	0.978	7.397	-7.397	2.898	-2.898
101	0.821	0.887	0.953	7.423	-7.423	2.923	-2.923
102	0.8	0.864	0.929	7.449	-7.449	2.948	-2.948
103	0.779	0.842	0.905	7.475	-7.475	2.973	-2.973
104	0.759	0.821	0.882	7.501	-7.501	2.999	-2.999
105	0.74	0.8	0.86	7.526	-7.526	3.024	-3.024
106	0.721	0.78	0.839	7.551	-7.551	3.05	-3.05
107	0.703	0.761	0.819	7.577	-7.577	3.076	-3.076
108	0.686	0.742	0.799	7.602	-7.602	3.102	-3.102
109	0.669	0.724	0.779	7.626	-7.626	3.128	-3.128
110	0.652	0.707	0.761	7.651	-7.651	3.154	-3.154
111	0.637	0.69	0.743	7.675	-7.675	3.181	-3.181
112	0.621	0.673	0.725	7.699	-7.699	3.207	-3.207
113	0.607	0.657	0.708	7.723	-7.723	3.234	-3.234
114	0.592	0.642	0.692	7.747	-7.747	3.261	-3.261
115	0.578	0.627	0.676	7.77	-7.77	3.288	-3.288
116	0.565	0.613	0.661	7.793	-7.793	3.316	-3.316
117	0.552	0.599	0.646	7.816	-7.816	3.343	-3.343
118	0.54	0.586	0.631	7.839	-7.839	3.371	-3.371
119	0.528	0.573	0.618	7.861	-7.861	3.399	-3.399
120	0.516	0.56	0.604	7.883	-7.883	3.427	-3.427
121	0.505	0.548	0.591	7.905	-7.905	3.455	-3.455
122	0.494	0.536	0.579	7.927	-7.927	3.484	-3.484

123	0.483	0.525	0.567	7.948	-7.948	3.513	-3.513
124	0.473	0.514	0.555	7.969	-7.969	3.542	-3.542
125	0.463	0.504	0.544	7.99	-7.99	3.571	-3.571



附表 II Attachment II

