



广东产品质量监督检验研究院 测量工程部

Measuring and Engineering Department of Guangdong Testing
Institute of Product Quality Supervision



中国认可
国际互认
校准
CALIBRATION
CNAS L1746

校准证书 Calibration Certificate

证书编号 Certificate No.	ZS1900528G	第 1 页, 共 5 页 Page of
委托方 Client	Panasonic Manufacturing Malaysia Berhad	
地址 Address	No. 3, Jalan Sesiku 15/2, Shah Alam Industrial Site, 40200 Selangor, Malaysia.	
样品名称 Description	Needle Flame Test	
型号规格 Model/Type	ZY-3	
制造厂 Manufacturer	Lisun Electronics Inc.	
编号 Serial No.	SOLS20190026 - A1	
接收日期 Rcvd Date	2019-01-26	校准日期 Calibration Date
签发 Approved by	柯学	职务 Job
审核 Checked by	宝铁良	副主任
校准 Calibrated by	黄子科	发证单位(专用章) Issued by (stamp)



校准结果

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Results of Calibration

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1. 外观及工作性能检查: 符合

Verification of appearance and normal work: Qualified

2. 结构性能参数测量:

Test results of structural performance & parameters

序号	项目	技术要求	实测结果	结论 (Pass/Fail)
No	Item	Technical requirement	Measured value	conclusion (Pass/Fail)
1	针焰管长度 Needle tube length	$\geq 35\text{mm}$	36.92mm	Pass
2	针焰管内径 Inner diameter of needle tube	$(0.5 \pm 0.1)\text{mm}$	0.52mm	Pass
4	火焰高度 Flame height	$(12 \pm 1)\text{mm}$	可调至要求值 Adjustable to required data	Pass
5	火焰施加角度 Flame angle	$(45 \pm 1)^\circ$	45.1°	Pass
6	燃烧室容积 Burnning chamber volume	$\geq 0.5\text{m}^3$	0.531m ³	Pass
7	火焰温度从100℃调至700℃所需要时间 Flame temperature rise time from 100℃ to 700℃	$(23.5 \pm 1)\text{s}$	23.72s	Pass

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3. 施焰时间:

Flame start time

校准点	实际值	误差	允差	结论
Calibrate point	Measured value	Deviation	Tolerance	Conclusion
(s)	(s)	(s)	(s)	(Pass/Fail)
10	10.02	-0.02	± 0.5	Pass
20	20.11	-0.11	± 0.5	Pass
30	30.17	-0.17	± 0.5	Pass
60	60.15	-0.15	± 0.5	Pass

4. 持焰时间:

Flame duration time

校准点	实际值	误差	允差	结论
Calibrate point	Measured value	Deviation	Tolerance	conclusion
(s)	(s)	(s)	(s)	(Pass/Fail)
10	10.05	-0.05	± 0.5	Pass
20	20.12	-0.12	± 0.5	Pass
30	30.14	-0.14	± 0.5	Pass
60	60.21	-0.21	± 0.5	Pass

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6. 温度测量

Temperature measurement

标准值	示值	误差	允差	结论
Standard value	Indicating value	Deviation	Tolerance	conclusion
(°C)	(°C)	(°C)	(°C)	(Pass/Fail)
100	100.1	0.1	±1.0	Pass
200	200.6	0.6	±1.0	Pass
300	299.6	-0.4	±1.0	Pass
400	399.8	-0.2	±1.0	Pass
500	499.5	-0.5	±1.0	Pass
600	599.6	-0.4	±1.0	Pass
700	699.3	-0.7	±1.0	Pass



结论: 所检测项目符合技术要求

Conclusion: All tested items complied with the technical requirements

测量结果的不确定度:

Uncertainty of the measuring results

1. 依据: JJF1059.1-2012 测量不确定度评定与表示

Accordings as JJF1059.1-2012 Evaluation and Expression of Uncertainty in Measurement

2. 测量结果的扩展不确定度:

Expanded uncertainty of the measuring results

尺寸/Dimension: $U = (0.004-0.02) \text{ mm}$ 角度/Angle: $U = 0.2^\circ$ ($k=2$)

温度/Temperature: $U = 0.3 \text{ }^\circ\text{C}$ 时间/Time: $U = 0.10\text{s}$ 容积/Volume: $U = 0.002\text{m}^3$ ($k=2$)

说 明

1. 本证书数据均可溯源于国家基准和国际单位制 (SI) 。

All data issued are traceable to national measurement standards and the international system of units (SI).

2. 本次校准的技术依据:

Reference documents for the calibration:

参照: CEST/CAL/GF025-2009 《针焰装置检测规范》

Reference: CEST/CAL/GF025-2009 《Needle flame device calibration specification》

3. 本次校准检测所使用的主要计量标准器具:

Major standards of measurement used in the calibration/inspection:

设备名称/型号 Name/Model Equipment	编号 Serial No.	制造商 Manufacturer	标准器有效期 Due Date
倾角仪 Clinometer	9236	深圳 Shenzhen	2019. 09. 25
数显卡尺/0-150mm Digital caliper	03122128	日本 Japan	2019. 09. 01
针规/ ϕ 0. 10-0. 90mm Flame gauge	09249-2	成量 Chengliang	2019. 02. 22
电子秒表/PC396 Electronic stopwatch	XZB3063	深圳惠波 Shenzhenhuibo	2019. 04. 05
温度测试仪/ESCORT22 Temperature tester	0590860011	台湾 Taiwan	2019. 04. 09
钢卷尺/3m Steel tape	09245-1	得力 Deli	2019. 04. 16
数显千分尺/0-25mm Digital micrometer	2327159	日本 Japan	2019. 09. 01

4. 校准/检测地点、环境条件:

Place and environmental conditions of the calibration/inspection:

地点: 现场

温度: 22°C

相对湿度: 60%RH

Place : On site

Temperature : 22°C

RH : 60%RH

5. 建议下次校准日期为:

Suggested date for the next calibration

25/ Jan/2020