

校准证书

CALIBRATION CERTIFICATE



证书编号: JL2407445191

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客户名称 : ESDMAN CO., LTD.
Name of Customer
客户地址 : Rm 505, Bldg A, 5th Floor, No. 2004, Xihuan Road, Shatou Community, Shajing Ave,
Address of Customer Baoan Dist. Shenzhen, China
计量器具名称 : Dual Footwear / Wrist Strap Resistance Calibrator
Name of Instrument
型号/规格 : 001-1005
Type/Specification
出厂编号 : 9982357987
Serial No
资产编号 :
Asset No
制造单位 : ESDMAN
Manufacture
校准依据 : JJG166-2022 Verification Regulation of DC Standard Resistors
Calibrated in Accordance to

(校准专用章)
Stamp

批准人 : 冯锦坤
Approved by

签名 : 冯锦坤
Signature

核验员 : 谭立松
Checked by

校准员 : 金立山
Calibrated by

校准日期 : 2024 年 05 月 23 日
Operation Date Year Month Day

建议复校日期: 2025 年 05 月 22 日
Suggested Recal.Date Year Month Day

签发日期 : 2024 年 05 月 27 日
Issue Date Year Month Day

证书首页背面“重要声明”是证书的组成部分,任何未包含“重要声明”内容的复制均为不完整复制。

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获得的国家、省、市专业站 Establishment of Following Institutions

国家数字电子产品质量检验检测中心
National Digital Electronic Product Testing Center (NETC)
国家营养食品质量检验检测中心(广东)
National Nutrition Food Testing Center (Guangdong)
国家体育用品质量检验检测中心(广东)
National Sports Product Testing Center (Guangdong)
国家环保产品质量检验检测中心(广东)
National Environmental Product Testing Center (Guangdong)
国家分布式光伏发电系统质量检验检测中心(广东)
National Distributed Photovoltaic Power Generation System Testing Center (Guangdong)
国家电动汽车电池及充电系统产业计量测试中心
National Metrology Center for Electric Vehicle Battery and Charging System Industry
国家民用无人机产品质量检验检测中心(广东)
National Civil Unmanned Aerial Vehicle Product Testing Center (Guangdong)
国家高新技术计量站
National Hi-tech Metrology Station
国家医疗器械产业计量测试中心
National Metrology and Testing Center for Medical Device Industry
国家计量数据科学中心深圳分中心
National Metrology Data Science Center (Shenzhen)
国家城市能源计量中心(深圳)
National Urban Energy Measurement Center (Shenzhen)
中国轻工业联合会家具质量监督检测深圳站
Accredited Testing Station (Shenzhen) for Furniture by China National Light Industry Council (CNLIC)
广东省质量监督食品检验站(深圳)
Guangdong Quality Supervision and Inspection Institution for Food (Shenzhen)
广东省质量监督生态纺织服装产品检验站(深圳)
Guangdong Quality Supervision and Inspection Institution for Ecological Textile and Garment Products (Shenzhen)
广东省质量监督皮革制品检验站
Guangdong Quality Supervision and Inspection Institution for Leather Products
广东省质量监督家具检验站(深圳)
Guangdong Quality Supervision and Inspection Institution for Furniture Products (Shenzhen)
广东省质量监督学生用品检验站(深圳)
Guangdong Quality Supervision and Inspection Institution for Student's Articles (Shenzhen)
广东省质量监督自行车检验站
Guangdong Quality Supervision and Inspection Institution for Bicycle Quality
广东省质量监督钟表检验站(深圳)
Guangdong Quality Supervision and Inspection Institution for Horological Products (Shenzhen)
广东省质量监督节能环保产品(安全性能)检验站(深圳)
Guangdong Quality Supervision and Inspection Institution for Safety Performance of Environmental Protection and Energy Saving Products (Shenzhen)
广东省质量监督眼镜检验站(深圳)
Guangdong Quality Supervision and Inspection Institution for Eyewear Products (Shenzhen)
广东省质量监督电磁兼容检验站
Guangdong Quality Supervision and Inspection Institution for Electromagnetic Compatibility
广东省质量监督综合布线系统检验站
Guangdong Quality Supervision and Inspection Institution for Generic Cabling System
深圳市纤维纺织检验所
Shenzhen Quality Inspection Institution for Fiber and Textile
深圳市建材产品质量监督检验站
Shenzhen Quality Supervision and Inspection Institution for Building Materials
深圳市消防产品燃烧性能检测中心
Shenzhen Testing Center for Burning Behavior of Fire Protection Products

联系方式 Contact Information

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传真电话 Fax No.: 0755-27591716(宝安) 82408176(八卦岭) 28932840(龙岗) 0769-21684527(东莞)
投诉及证书/报告真伪查询电话 Complaint Tel.: 400-900-8999 按5 Email: complaint@smq.com.cn

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校准用主要计量标准装置信息

Main Standard Devices Used

名称 Equipment Name	测量范围 Measuring Range	不确定度/准确度等级/ 最大允许误差 Uncertainty/Accuracy Class/ Maximum Permissible Error	计量标准考核证书号 Certificate No	有效期至 Due Date

校准用主要标准器信息

Main Standards of Measurement Used

名称 Equipment Name	测量范围 Measuring Range	不确定度/准确度等级/ 最大允许误差 Uncertainty/Accuracy Class/ Maximum Permissible Error	设备编号 Equipment No	有效期至 Due Date	溯源单位/ 证书号 Traceability to/ Certificate No
参考级数字万用表	ACU:(0.1 μ V~1050V);DCU:(1nV~1050V);ACI:(0.1nA~20A);DCI:(0.01nA~20A);R:(0.01 $\mu\Omega$ ~20G Ω)	ACU: $\pm 0.0065\%$ R;DCU: $\pm 0.0003\%$ R;ACI: $\pm 0.025\%$ R;DCI: $\pm 0.0012\%$ R;R: $\pm 0.00075\%$ R	SB4419	2024-08-03	

附加说明

Appended Directions

委托日期:
Application Date

2024 年 05 月 21 日

环境条件:

Operation Environment

温度 20.0 $^{\circ}$ C 相对湿度 60%

校准地点:

Operation Location

本院电磁 419 室

校准项目/参数说明:

Items Instructions

本次校准根据委托方要求实施, 校准项目/参数详见校准结果

符合性及限制使用说明:

Statement of Compliance and Limitation

所校准项目(或量值)合格(Passed at Calibration Items)

备注:

Remark

计量器具经本次校准的量值符合客户提供的技术指标/校准规范/检定规程/计量器具技术说明书提供的判断依据(准确度等级、最大允许误差限等)要求。

校准结果

RESULTS OF CALIBRATION

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1 Appearance check: Normal

2 Intrinsic Error of Resistance: see Table 1

Table 1 Intrinsic Error of Resistance

Nominal Value	Actual Value	Error	MIE	Conclusion
(k Ω)	(k Ω)	(%)	(%)	(Pass/Fail)
91	91.06	-0.1	± 1	P
110	110.4	-0.4	± 1	P
680	679.4	0.1	± 1	P
820	820.9	-0.1	± 1	P
(M Ω)	(M Ω)	(%)	(%)	
9	8.974	0.3	± 1	P
11	11.04	-0.4	± 2	P
32	31.83	0.5	± 2	P
38	37.69	0.8	± 2	P
90	90.51	-0.6	± 2	P
110	111.6	-1.4	± 6	P
800	808.2	-1.0	± 6	P
(G Ω)	(G Ω)	(%)	(%)	
1.1	1.093	0.6	± 6	P

Notes:

1. Relative Expanded Uncertainty of Resistance Measurement Results

$$\begin{aligned} 91 \text{ k}\Omega \sim 9 \text{ M}\Omega: & \quad U_{\text{rel}} = 0.3 \% , \quad k = 2; \\ 11 \text{ M}\Omega \sim 90 \text{ M}\Omega: & \quad U_{\text{rel}} = 0.6 \% , \quad k = 2; \\ 110 \text{ M}\Omega \sim 1.1 \text{ G}\Omega: & \quad U_{\text{rel}} = 2.0 \% , \quad k = 2; \end{aligned}$$

2. The uncertainty given in this certificate is evaluated according to JJF 1059.1-2012
Evaluation and Expression of Uncertainty in Measurement.

3. Basis for the Conclusion: Technical Specification of the Instrument.