



校准证书

CALIBRATION CERTIFICATE

证书编号 RGW202510710
Certificate No.

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客户名称 优利德科技(中国)股份有限公司
Name of the Customer

联络信息 广东省东莞市松山湖园区工业北一路6号
Contact Information

计量器具名称 手机热像仪 (红外热像仪)
Description

型号/规格 UTi380MS
Model/Type

制造厂 UNI-T
Manufacturer

出厂编号 设备管理编号 UTi380MS-1
Serial No. Equipment No.

接收日期 2025 年 04 月 28 日
Receipt on Y M D

结论 见校准结果
Conclusion Shown in the results of calibration

校准日期 2025 年 05 月 06 日
Calibration on Y M D

发布日期 2025 年 05 月 07 日
Issue on Y M D

批准 徐标
Authorized by

核验 岑淑琼
Reviewed by

校准 胡月
Calibrated by

证书专用章
Stamp



扫一扫查真伪



说明

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DIRECTIONS

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1. 本中心是国家市场监督管理总局在华南地区设立的国家法定计量检定机构, 本中心的质量管理体系符合 ISO/IEC 17025:2017 标准的要求。

This laboratory is the National Legal Metrological Verification Institution in southern China set up by the State Administration for Market Regulation. The quality system is in accordance with ISO/IEC 17025:2017.

2. 本中心所出具的数据均可溯源至国家计量基准和/或国际单位制(SI)。

All data issued by this laboratory are traceable to national primary standards and/or International System of Units (SI).

3. 校准地点、环境条件:

Location and environmental conditions of the calibration:

地点	本中心热工实验室	Thermodynamics Lab.	温度	22 °C	相对湿度	65 %
Place			Temperature		R.H.	

4. 本次校准的技术依据:

Reference documents for the calibration:

JJF1187-2008 热像仪校准规范 C.S. for Thermal Imagers

5. 本次校准所使用的主要计量标准器具:

Major standards of measurement used in the calibration:

设备名称/型号规格/测量范围 Name of Equipment /Model/Type/Range	编号 Serial No.	证书号/有效期/溯源单位 Certificate No./Due Date /Traceability to	计量特性 Metrological Characteristic
黑体辐射源 Blackbody Radiator Source /R-50A/(-50~50)°C	R-010002	RGfs2024-02311 /2025-12-02 /国家计量院	$U = (0.3 \sim 0.9) ^\circ\text{C}, k=2$
黑体辐射源 Blackbody Radiator Source /R-700/(50~700)°C	R-040001	RGfs2024-02312 /2025-12-02 /国家计量院	$U = (0.9 \sim 1.9) ^\circ\text{C}, k=2$ $U = (0.6 \sim 2.3) ^\circ\text{C}, k=2$
黑体辐射源 Blackbody Radiator Source /4181/(50~500)°C	C38819	RGW202411586 /2025-12-16 /本中心	$U = (0.4 \sim 1.4) ^\circ\text{C}, k=2$

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注: 1. 本证书校准结果只与受校准仪器有关。The results relate only to the items calibrated.

Note: 2. 未经本机构书面批准, 不得部分复制此证书。This certificate shall not be reproduced except in full, without the written approval of our laboratory.

3. “客户名称”、“联络信息”由委托方提供, “制造厂”、“型号规格”、“出厂编号”以及“设备编号”为仪器上标注, 委托方对上面内容如有异议, 须在收到证书后二十个工作日内提出。

The information Name of the Customer and Contact Information are provided by client, and the Manufacturer, Model/Type, Serial No. and Equipment No. are marked on the items. Client shall submit any objection within 20 working days after receiving the certificate for the information above.



华南国家计量测试中心
广东省计量科学研究所

SOUTH CHINA NATIONAL CENTER OF METROLOGY
GUANGDONG INSTITUTE OF METROLOGY



中国认可
国际互认
校准
CALIBRATION
CNAS L0730

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设备名称/型号规格/测量范围
Name of Equipment
/Model/Type/Range
标准辐射温度计
Standard radiation
thermometer
/TRT IV.82/(-50~+1000)°C

编号
Serial No.

3275

证书号/有效期/溯源单位
Certificate No./Due Date
/Traceability to
RGfs2024-02059
/2025-10-10
/国家计量院

计量特性
Metrological
Characteristic
 $U=(0.3\sim 1.6)^{\circ}\text{C}, k=2$

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校准结果

RESULTS OF CALIBRATION

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一、外观: 符合要求

Apparent Inspection: Pass

二、校准数据见表1:

Refer to Calibration Data in Table 1:

表1
Table 1

单位: °C
Unit: °C

测量范围 Range	标准温度值 Standard Value	示值误差 Error	扩展不确定度 Expanded Uncertainty $U (k=2)$
	-10.0	+1.9	1.3
	20.0	+1.8	0.6
	75.0	-0.6	1.0
	100.0	-0.8	1.2
	150.0	-2.3	1.5
	350.0	-5.5	2.3
	450.0	-8.6	3.1
	550.0	-10.1	4.1

被检红外热像仪发射率为 $\varepsilon=0.95$, 工作波段为 $(8\sim 14)\mu\text{m}$;

The emissivity of thermal infrared imager was 0.95, and the wave length is $(8\sim 14)\mu\text{m}$.

三、测温一致性测量:

Thermometric coherence measurement:

测试温度: 100

Testing Point:

表2
Table 2

单位: °C
Unit: °C

•A $\varphi A = +0.5$	•B $\varphi B = +0.7$	•C $\varphi C = +0.6$
•D $\varphi D = +0.2$	•E $\varphi E = +0.3$	•F $\varphi F = +0.3$
•G $\varphi G = +0.2$	•H $\varphi H = 0.0$	•I $\varphi I = +0.2$

测温一致性值 φ =标记点平均温度值-中心点平均温度值

Thermometric coherence " φ " = Target average temperature - Center average temperature



校准结果 RESULTS OF CALIBRATION

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说明:
Note:

- 1 校准活动中对测量结果有影响的条件: 温度: 22℃、湿度: 65%RH。
Conditions under which the calibrations were made that have an influence on the measurement results: Temperature: 22℃, Humidity: 65%RH.
- 2 本证书中给出的扩展不确定度依据JJF 1059.1-2012《测量不确定度评定与表示》评定, 由合成标准不确定度乘以包含概率约为95%时对应的包含因子 k 得到。
The expanded uncertainty given in this certificate is evaluated according to JJF 1059.1-2012 "Evaluation and Expression of Uncertainty in Measurement", which is obtained by multiplying the combined standard uncertainty by the coverage factor k corresponding to the coverage probability of about 95%.
- 3 该仪器的溯源日期为本证书的“校准日期”, 按照所依据技术文件的规定, 建议复校时间间隔不超过1年。更换重要部件、维修或对仪器性能有怀疑时, 应及时校准。
The traceability date of this instrument is the "Calibration Date" on this certificate, According to the demand of reference document, next calibration is proposed within 1 year. In case of replacement of important parts, maintenance or doubt on the performance of the instrument, it shall be calibrated in time.