



# 校准证书

## CALIBRATION CERTIFICATE

证书编号 RGW202511603  
Certificate No.

第 1 页, 共 4 页  
Page of

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 红外热像仪  
Description

型号/规格 UTi384G  
Model/Type

制造厂 UNI-T  
Manufacturer

出厂编号 C243989957  
Serial No.

设备管理编号  
Equipment No.

接收日期 2025 年 10 月 15 日  
The date of receipt Y M D

校准日期 2025 年 10 月 17 日  
The date of calibration Y M D

发布日期 2025 年 10 月 20 日  
The date of issue Y M D

批准 徐标 徐标  
Authorized by

核验 岑淑琼 岑淑琼  
Reviewed by

校准 胡月 胡月  
Calibrated by



扫一扫查真伪



## 说明

证书编号 RGW202511603

Certificate No.

### DIRECTIONS

第 2 页, 共 4 页

Page of

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. 校准地点:

The location of calibration:

院本部2035

Room 2035, Headquarters

3. 本次校准使用的方法:

The method used:

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

4. 本证书中的校准结果可溯源至国际单位制 (SI) 单位和/或社会公用计量标准, 本次校准使用以下主要计量标准器具:

The calibration results are traceable to International System of Units (SI) units and/or measurement standard for public service.

The major measurement standards used:

| 名称<br>Name | 型号规格<br>Model/Type           | 编号<br>Serial No. | 证书号/溯源机构<br>Certificate No./<br>Traceability to | 计量特性<br>Metrological Characteristic                                                  |
|------------|------------------------------|------------------|-------------------------------------------------|--------------------------------------------------------------------------------------|
| 精密辐射温度计    | TRT IV. 82<br>/(-50~1600) °C | 4403             | RGfs2025-00311<br>/国家计量院                        | $U=(0.3\sim8.0)^{\circ}\text{C}$ , $k=2$                                             |
| 黑体辐射源      | 4181<br>/(35~500) °C         | B8B871           | RGfs2025-00328<br>/国家计量院                        | $U=(0.4\sim1.4)^{\circ}\text{C}$ , $k=2$                                             |
| 黑体辐射源      | R-700<br>/(50~700) °C        | R-040001         | RGfs2024-02312<br>/国家计量院                        | $U=(0.9\sim1.9)^{\circ}\text{C}$ , $k=2$<br>$U=(0.6\sim2.3)^{\circ}\text{C}$ , $k=2$ |
| 黑体辐射源      | R-50A<br>/(-50~50) °C        | R-010002         | RGfs2024-02311<br>/国家计量院                        | $U=(0.3\sim0.9)^{\circ}\text{C}$ , $k=2$                                             |

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”由客户提供, “制造厂”、“型号规格”、“出厂编号”以及“设备编号”为仪器上标注, 客户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 customer, and the Manufacturer, Model/Type, Serial No. and Equipment No. are marked on the items. Customer shall submit any objection within 20 working days after receiving the certificate for the information above.



## 校准结果 RESULTS OF CALIBRATION

证书编号 RGW202511603  
Certificate No.

原始记录号 RGW202511603  
Record No.

第 3 页, 共 4 页  
Page of

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<br>Range | 标准温度值<br>Standard Value | 示值误差<br>Error | 扩展不确定度<br>Expanded Uncertainty<br>$U(k=2)$ |
|---------------|-------------------------|---------------|--------------------------------------------|
| -20~+150      | -10.0                   | +1.2          | 0.8                                        |
|               | 50.0                    | +1.3          | 0.7                                        |
|               | 150.0                   | +0.1          | 1.1                                        |
| -20~+550      | -10.0                   | -1.3          | 0.9                                        |
|               | 300.0                   | +2.8          | 1.3                                        |
|               | 550.0                   | +5.9          | 2.2                                        |

被检红外热像仪发射率为 $\epsilon=1.00$ , 工作波段为 $(8\sim 14)\mu\text{m}$ :

The emissivity of thermal infrared imager was 1.00, 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<br>$\phi A = -0.2$ | •B<br>$\phi B = -0.1$ | •C<br>$\phi C = -0.1$ |
| •D<br>$\phi D = -0.2$ | •E                    | •F<br>$\phi F = 0.0$  |
| •G<br>$\phi G = 0.0$  | •H<br>$\phi H = +0.1$ | •I<br>$\phi I = -0.1$ |

测温一致性值 $\phi$ =标记点平均温度值-中心点平均温度值

Thermometric coherence " $\phi$ " = Target average temperature - Center average temperature



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证书编号 RGW202511603  
Certificate No.

原始记录号 RGW202511603  
Record No.

第 4 页, 共 4 页  
Page of

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: 58%RH。  
Conditions under which the calibrations were made that have an influence on the measurement results: Temperature: 22℃, Humidity: 58%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.

