UNI-T®

UTi256G/UTi384G

红外热成像仪

Professional Thermal Imager

UTi256G/UTi384G
红外热成像仪使用说明书

(4p-24p)

UTi256G/UTi384G
Professional Thermal Imager User Manual

(26p-48p)

序 言

尊敬的用户：

您好！感谢您选购全新的UTi256G/UTi384G红外热成像仪，为了正确使用本产品，请您在使用之前仔细阅读本说明书全文，特别是“警告”部分的内容。

如果您已经阅读完本说明书全文，建议您将此说明书妥善保管，与热成像仪配件一同放置或者放在您随时可以查阅的地方，以便在将来的使用过程中查阅。

有限担保和有限责任

公司担保本产品自购买之日起一年内，在材料和工艺上均无任何缺陷。本担保不适用于由于意外、疏忽、误用、改装、污染及非正常操作或处理引起的损坏。经销商无权以公司的名义给予其它任何担保。如在保修期内需要保修服务，请与您就近的授权服务中心联系，获得产品退还授权信息； 然后将产品寄至该服务中心，并附上产品问题描述。

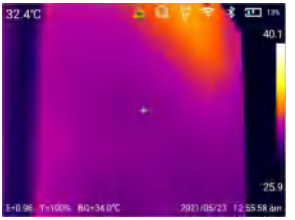
本项担保是您能获得的唯一补偿。除此以外，公司不提供任何明示或隐含的担保，例如适用于某一特殊目的的隐含担保。同时，公司不对基于任何原因或推测而导致的任何特殊、间接、附带或继起的损坏或损失负责，由于某些州或国家不允许对默示担保及附带或继起的损坏加以限制，故上述的责任限制与规定或许对您不适用。

目　录

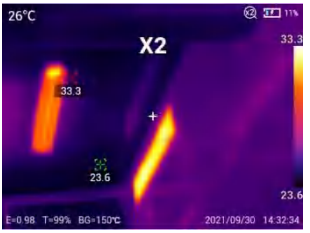
数码放大	2x, 4x
颜色报警	超过设定温度阈值后，光标颜色变化进行报警。
调色板	红热、高对比度彩虹、 彩虹、熔岩、铁红、黑热、白热
蓝牙	√
录音功能	√
Wifi 照片下载	√
Wifi 视频直播	√
手机APP	√
PC 分析软件	√
温度单位	K/℃/℉
语言	简体中文、英语、俄语、西班牙语、葡萄牙语、德语、阿拉伯语、日语、韩语
自动关机	关、5分钟、10分钟、15分钟、20分钟
储存	内部存储8GB，外部存储 Micro SD卡32GB
USB 接口	Type-C
照明灯	√
红外激光	Class 2激光，红色
按键	电源键、照明灯键、SET键、方向键、图库键、返回键、拍照扳机键、激光扳机键
电池类型	可更换电池包
续航时间	约5小时
充电系统	Type-C 直充
工作温度	-10℃~50℃
存储温度	-40℃~60℃
跌落防护	2m
防护等级	IP54
认证	CE、FCC、UKCA、ROHS

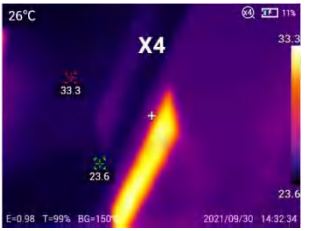
第三章 界面区域一览

实时图像界面



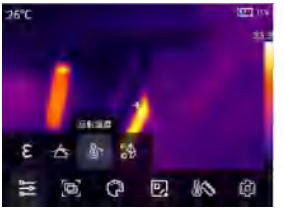
1. 顶部状态栏：显示激光、电子变倍、手电筒、WiFi、蓝牙、电池电量以及充电状态；
2. 底部状态栏：显示发射率、光学透过率、反射温度、日期时间；
3. 电子变倍：双指放大或缩小进行电子变倍放大或缩小，支持2X/4X变倍；



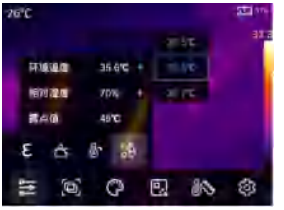


4. 色带：成像与色带颜色一致；
5. 菜单栏：单击屏幕打开隐藏的菜单栏，可进行参数设置；
6. 下滑菜单：顶部下滑屏幕，进入下滑菜单界面，可进行快捷设置。

- 反射温度：在-40~2000℃范围内选择。



- 露点：露点中可设置环境温度和相对湿度，通过环境温度与相对湿度计算得到露点值。



2. 图像模式：包含红外、可见光、融合、画中画四种模式；

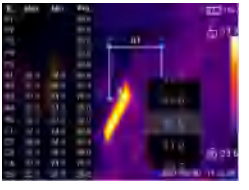
● 温差模式：添加至少2个分析对象，点击【 】图标，选择分析对象对比显示温度差。

5. 等温线：可对自动调光进行向上等温线、向下等温线、区间外等温线、区间内等温线设置，对手动调光进行手动设置。

● 自动调光模式：

向上等温线： 点击【 】，进入向上等温线图像模式；
向下等温线： 点击【 】，进入向下等温线图像模式；
区间外等温线：点击【 】，进入区间外等温线图像模式；
区间内等温线：点击【 】，进入区间内等温线图像模式。

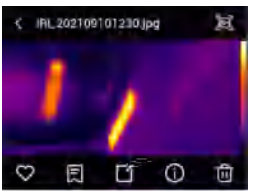
● 手动调光模式：



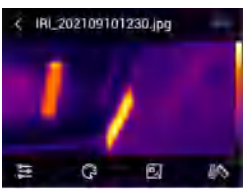
触摸点击色带条上的最高温或者最低温值，弹出相应的数值选项，选择合适的高温或者低温值，图像调光同步变化。

2. 点击右上角的【选择】，选择图片后进行图片的批量收藏、批量注释、批量删除。

图片编辑



1. 在图库单击任意一张图片即可进入图片大图显示界面；
2. 点击【 】按钮，可查看当前图片对应的可见光图片；
3. 点击【 】按钮，可对当前图片进行收藏；
4. 点击【 】按钮，可对当前图片进行注释，包含文本注释、语音注释、可见光注释；
5. 点击【 】按钮，即可查看当前图片的具体信息；
6. 点击右下角的【 】，即可删除当前图片；
7. 点击【 】按钮，进入图片的编辑；
8. 图片编辑中，可修改图片的测温参数、调色板、温度分析、等温线，对修改的图片进行保存，参考菜单栏中的设置方法。



拍照模式下，可选择是否仅保留当前JPG，可见光分辨率；
录像模式下，可选择视频保存方式、视频格式；
定时拍照模式下，可选择时间间隔、图像张数、是否仅保留当前JPG、可见光分辨率。

测温范围

可在-20~150℃、-20~550℃、AUTO中选择。

温度报警

报警温度阈值分为高温和低温：
打开高温报警开关，用户可根据需求设定报警温度阈值如（35℃），返回实时图像界面，若场景中有温度高于35℃，设备即有高温图标进行报警，直至报警结束停止；

打开低温报警开关，用户可根据需求设定报警温度阈值如（32℃），返回实时图像界面，若场景中有温度低于32℃，设备即有低温图标进行报警，直至报警结束停止；

如同时打开高温报警以及低温报警开关时，触发高温+低温报警。

亮度

可滑动调节屏幕的亮度。

数据连接

Wi-Fi

1. 打开WiFi开关，搜索出附近的网络；
2. 选取需要连接的网络，输入密码后连接。

注意：为保证wifi信号可靠连接与数据稳定传输，请尽量保证连接距离在10m范围内，且无障碍物阻隔（如隔墙等）。

图像标记

点击图像标记，可开启温度、发射率、反射温度、光学透过率、色带、时间日期、电池电量，并显示在实时图像上。

单位切换

用户根据自身操作习惯选择温度单位：摄氏度、华氏度、开尔文。

用户根据自身操作习惯选择距离单位：米、码。

第七章 与外部设备连接

本产品可以使用USB数据线与外部设备进行连接。

1. 查看内部存储文件。

将USB数据线与电脑进行连接后，打开我的电脑，查看内部存储盘信息，点击进入内存设备，找到存放图片的文件夹，具体路径为…UNIT\内部存储设备\DCIM\GCamera\SourceImage

注意：IRI开头的文件名称为红外图像，VIS开头的文件名称为可见光图像。

2. 查看TF卡文件。

如需将拍摄图片存入TF卡，请先进入设置-图像存储，选择存储介质为TF卡，再进行拍照操作即可将文件保存到TF卡中。

使用USB数据线连接到电脑，打开我的电脑，查看内部存储盘信息，点击进入内存设备，路径为…\UNIT\SD卡\DCIM\GCamera\SourceImage

注意：IRI开头的文件名称为红外图像，VIS开头的文件名称为可见光图像。

第八章 PC分析软件

请参照下载指南登录优利德官网下载PC软件并完成安装。

注：关于PC 软件的操作方法，可以从软件操作界面的帮助选项中打开《User Manual》。

第九章 手机APP软件

IOS设备请在App Store 搜索"Thermal Link"获取。

Android 设备有以下几种APP 获取方法。

- 请在Play Store 搜索"Thermal Link"获取；
- 请参照下载指南登录优利德官网下载。

注：关于APP软件的操作方法，可以从软件设置界面的帮助选项中打开《APP用户操作手册》。

优利德®

优利德科技(中国)股份有限公司

地址：广东省东莞市松山湖园区工业北一路6号
电话：(86-769) 8572 3888
邮编：523 808
http://www.uni-trend.com.cn

Preface

Dear user,

Hello! Thank you for purchasing the new UTi256G /UTi384G Professional Thermal Imager. In order to use this product correctly, please read the full text of this manual carefully before using it, especially the content of the “Warning" part.

If you have read the full text of this manual, it is recommended that you keep this manual properly and place it with the accessories of the thermal imager or in a place where you can refer to it at any time for future use.

Limited Warranty and Limited Liability

The company guarantees that this product will be free from any defects in materials and workmanship within one year from the date of purchase. This guarantee does not apply to damage caused by accident, negligence, misuse, modification, pollution and abnormal operation or handling. The distributor has no right to give any other guarantee in the name of the company. If you need warranty service during the warranty period, please contact your nearest authorized service center to obtain the product return authorization information; Then send the product to the service center, and attach the product problem description.

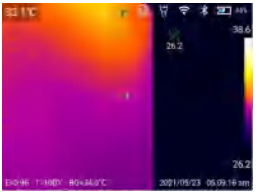
This guarantee is the only compensation you can get. In addition, the company does not provide any express or implied warranty, such as the implied warranty applicable to a special purpose. At the same time, the company will not be responsible for any special, indirect, incidental or consequential damage or loss caused by any reason or speculation. Since some states or countries do not allow limitations on implied warranty and incidental or consequential damage, the above limitations and provisions of liability may not apply to you.

Contents

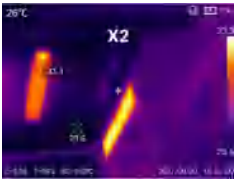
Digital Zoom	2x, 4x
Color Alarm	When the set temperature threshold is exceeded, the cursor color changes to alarm.
Palette	Red hot, High Contrast Rainbow, Rainbow, Lava, Iron red, Black hot,White hot
Bluetooth	√
Recording Function	√
WiFi Photo Download	√
WiFi Live Video	√
Mobile APP	√
PC Analysis Software	√
Temperature Unit	K/℃/℉
Language	Simplified Chinese, English, Russian, Spanish, Portuguese, German, Arabic, Japanese, Korean
Automatic Shutdown	Off, 5 minutes, 10 minutes, 15 minutes, 20 minutes
Storage	Internal Storage 8 GB, External Storage Micro SD Card 32GB
USB Port	Type-C
Lighting	√
Infrared Laser	Class 2 Laser, red
Button	Power Button, Lighting Button, Setting Button, Direction Button, Library Button, Return Button, Camera Trigger Button, Laser Trigger Button
Battery Type	Replaceable Battery Pack
Endurance Time	About 5 Hours
Charging System	Type-C Direct Charging
Working Temperature	−10℃~50℃
Storage Temperature	-40℃~60℃
Fall Protection	2m
Degree of Protection	IP54
Authentication	CE, FCC, UKCA, ROHS

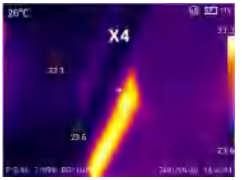
Chapter 3 List of Interface Areas

Real Time Image Interface



1. Top Status Bar: Display laser, electronic zoom, flashlight, WiFi, Bluetooth, battery power and charging status;
2. Bottom Status Bar: Display emissivity, optical transmittance, reflection temperature, date and time;
3. Electronic Zoom: Double finger zoom in or out for electronic zoom in or out, supporting 2x/4x zoom;

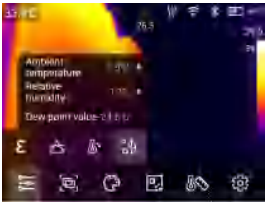




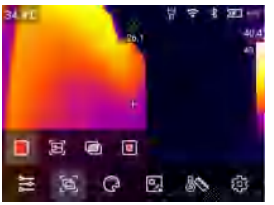
4. Color Band: The image is consistent with the color band;
5. Menu Bar: Click the screen to open the hidden menu bar to set parameters;
6. Slide Menu: Slide screen at the top, enter the slide menu interface, and you can make quick settings.

- Reflection Temperature: Select in the range of -40~2000°C.

- Dew Point: The ambient temperature and relative humidity can be set in the dew point, and the dew point value can be calculated through the ambient temperature and relative humidity.

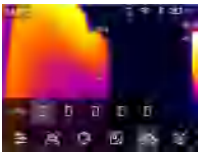


2. Image Mode: Including infrared, visible light, MIF and picture in picture;



- Temperature Difference Mode: Add at least 2 analysis objects, click the【 】icon, select the analysis object to compare and display the temperature difference.

5. Isotherm: High temperature line, low temperature line, isotherm outside the interval and isotherm inside the interval can be set for automatic dimming, and manual dimming can be set manually.



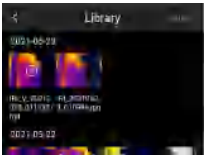
- In Automatic Dimming Mode:
  Upward Isotherm: click【 】to enter the upward isotherm image mode;
  Downward Isotherm: click 【 】to enter the downward isotherm image mode;
  Isotherm outside the interval: click【 】to enter the isotherm image mode outside the interval;
  Isotherm in the interval: click 【 】to enter the isotherm image mode in the interval.
- In Manual Dimming Mode:

Touch and click the highest or lowest temperature value on the ribbon bar to pop up the corresponding value option. Select the appropriate high or low temperature value, and the image dimming changes synchronously.

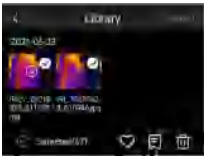
Chapter 5 Gallery

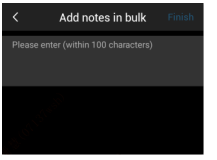
Gallery Playback

1. Press the 【Library】button to enter the gallery preview interface;

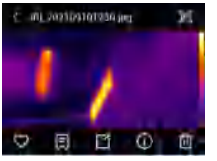


2. Click 【Select】in the upper right corner to select pictures, and then carry out batch collection, batch annotation, and batch deletion of pictures.



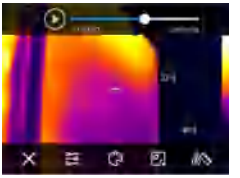


Picture Editing



1. Click any picture in the gallery to enter the large picture display interface;
2. Click【】button to view the visible light picture corresponding to the current picture;
3. Click【】button to collect the current picture;
4. Click【】button to annotate the current picture, including text annotation, voice annotation and visible light annotation;
5. Click【】button to view the specific information of the current picture;
6. Click【】in the lower right corner to delete the current picture;
7. Click【】button to enter the picture editing;

2. Click Irgd video in the gallery to enter the video interface;



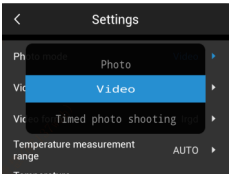
- Irgd video operation: you can play, pause and drag the video to play, and you can modify the temperature parameters of the video. Refer to the setting method in the menu bar.

Chapter 6 Setting

Click 【⚙】 in the menu bar to enter the setting interface.

Photo Mode

You can choose the photographing mode: photographing, video recording and timed photographing.

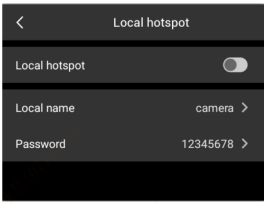


In photographing mode, you can choose whether to keep the current JPG/visible light resolution;
In video recording mode, you can choose video storage method and video format;
In the timed shooting mode, you can select the time interval, the number of images, and whether to retain only the current JPG/visible light resolution.

Temperature measurement Range

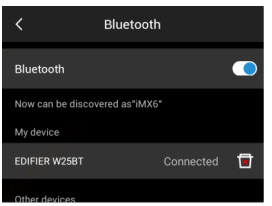
It can be selected from -20~150°C, -20~550°C and AUTO.

Local hotspot



In the configuration interface, enter a valid hotspot name camera, password 12345678, and click OK to save it successfully. Click to open the hotspot switch, and the hotspot can be searched for connection.

Bluetooth



1. Turn on the Bluetooth headset, press and hold the call button for 3 seconds to enter the pairing mode;
2. Turn on the Bluetooth switch, and the system will automatically search for Bluetooth devices, and select Bluetooth headsets in the device list for pairing;
3. After pairing, the headset will try to reconnect each time it is turned on.

Target Distance
The distance can be selected within the range of 0.5~3.0m according to the distance of the target.

Automatic Shutdown
Users set automatic shutdown according to their own operating habits, including: off /5min/10min/15min/20min.

Language Switch
Users can choose to store images to TF card or memory according to their own needs.

Language
Provide multi language switching.

Date and Time
Manually set the system date and time.

Local Upgrade
Put the upgrade package in the /gcamera/update directory. Click "start upgrade", and the latest upgrade package is detected. Click "upgrade", and restart the device to upgrade to the latest version after the upgrade.

Note: Maintain sufficient power during the upgrade. If you have any questions during the upgrade process, contact the manufacturer in time.

Restore Factory
Please operate carefully to restore the machine to the factory state.

Synchronize Data
Deal with the problem that files cannot be viewed due to factors such as changing SD cards and using each other.

2. Check the TF card file.

If you need to save the captured pictures into a TF card, first enter settings - image storage. Select the storage medium as a TF card, and then take photos to save the files into the TF card.

Use the USB cable to connect to the computer. Open my computer, and check the internal storage disk information. Click to enter the memory device, and the path is... \UNIT\ SD Card \DCIM\GCcamera\Sourceimage

Note: The file name beginning with IRI is infrared image, and the file name beginning with VIS is visible image.

Chapter 8 PC Analysis Software

Please refer to the download guide to log in to the official website of UNI-T to download the PC software and complete the installation.

Note: For the operation method of PC software, you can open user manual from the help option of the software operation interface.

Chapter 9 Mobile APP Software

Please search “Thermal link" in the app store for IOS devices.

Android devices have the following ways to obtain apps:

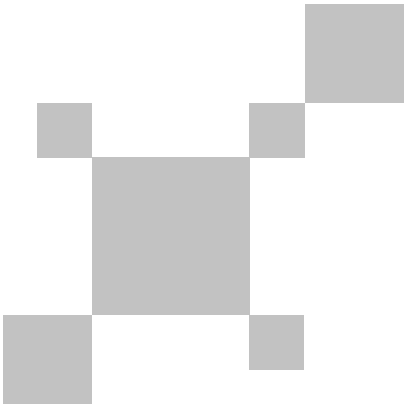
- Please search for “Thermal link" in the play store;
- Please refer to the download guide and log in to the official website of UNI-T to download.

Note: For the operation method of the APP software, you can open the app user's operation manual from the help option of the software setting interface.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

UNI-T
UNI-TREND TECHNOLOGY（CHINA）CO., LTD.
No. 6, Gong Ye Bei 1st Road,
Songshan Lake National High-Tech Industrial
Development Zone, Dongguan City,
Guangdong Province, China

	备注
边、刀线错位等缺陷。	
O. 号：110401111254X	
（中国）有限公司 NOLOGY (CHINA) LIMITED	



P/N:110401111254X

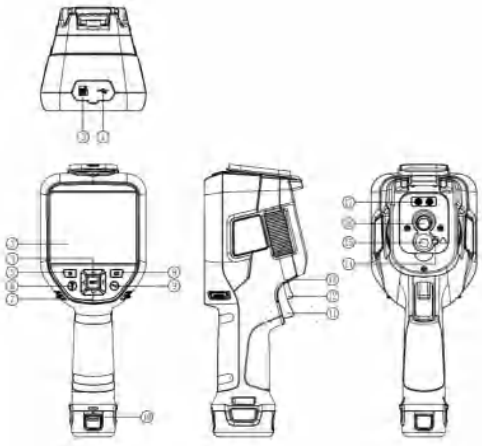
警 告

1. 在使用设备时请尽量保持稳定，避免剧烈晃动；
2. 不要在超出设备许可的工作温度或储存温度环境中使用或存放仪器；
3. 不要将设备直接对准很高强度的热辐射源，例如太阳，激光器，点焊机等；
4. 不要堵塞设备上的孔；
5. 不要敲打，扔掷或震动仪器和配件，以免造成损坏；
6. 请勿自行拆卸本机，这有可能造成设备损坏，并丧失保修权利；
7. 不要将有溶解性或类似的液体用于设备，线缆，这可能会导致设备的损坏；
8. 请不要在超过设备使用工作温度的环境下使用该设备，这可能会造成设备的损坏；
9. 擦拭本设备时请遵照以下措施：
   - 非光学表面：在必要时可以使用干净柔软的布擦拭热像仪的非光学表面；
   - 光学表面：使用热像仪时请避免弄脏镜头的光学表面，特别要避免用手触碰镜头，因手上的汗迹会在镜头玻璃上留下痕迹且可能会腐蚀玻璃表面的光学镀膜层。当光学镜头表面受到污染时，使用专业镜头纸小心的擦拭；
10. 不要将电池置于高温环境或靠近高温物体；
11. 不要使电池的正负极短路；
12. 不要将电池置于潮湿环境或水中；
13. 不要将设备暴露在灰尘或潮湿的环境中。在有水的环境中使用时，应避免水溅到仪器上；在不使用仪器时应盖上镜头盖；
14. 当不使用本设备时，请将仪器和所有配件放置在专用包装箱内；
15. 避免将随机的SD卡挪作他用；
16. 该产品介绍所使用的商品图文信息，实际产品因批次不同，材质和细节上偶有微小差异，敬请谅解，请以收到具体实物为准；
17. 页面中提供的实验数据为理论值，均来自优利德公司内部实验室，仅供参考；客户不可将其作为下单购物的参考依据。特此说明！如有任何疑问可联系客服，进行详细咨询。

第一章 技术规格参数

机型	UTi256G	UTi384G
探测器类型	非制冷焦平面	
波长范围	7.5-14μm	
像元尺寸	17μm	
红外分辨率	256x192	384x288
视场角	28°x20°	42°x30°
图像帧频	30Hz	
NETD	40mk	
空间分辨率	1.91mrad	
可调焦镜头	手动调焦	
测温范围	-20℃~550℃	
测温精度	±2℃/±2%（取最大值，常温25℃）	
LCD屏幕	3.5"触摸屏(640x480)	
可见光分辨率	500万像素	
拍照	√	
视频录像	X	√
热点/冷点追踪	√	
可见光融合	√	
画中画	√	
测温点	3个用户可调节的点标记	5个用户可调节的点标记
测温区域	3个用户可调节的矩形， 3个用户可调节的圆形。	5个用户可调节的矩形， 5个用户可调节的圆形。
参数	发射率、光学透射率、反射温度、露点	

第二章 产品部件介绍



项目	说明	项目	说明
1	USB Type-C接口	10	电池组件
2	Micro SD卡槽	11	拍照扳机键
3	液晶显示屏	12	激光扳机键
4	SET键	13	调焦轮
5	电源键	14	激光
6	照明灯键	15	可见光摄像窗口
7	方向键	16	红外热像窗口
8	图库键	17	照明灯
9	返回键		

菜单栏

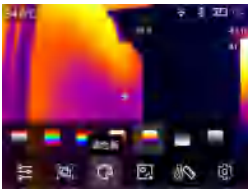
在实时图像界面点击屏幕可打开菜单栏，菜单栏中包括：测温参数，图像模式、调色板、温度分析、等温线、设置菜单的快捷操作。

1. 测温参数：可根据目标温度设置发射率、光学透过率、反射温度和露点；

- 发射率：点击进入发射率，选择【自定义】，滑动相应数值进行修改，范围控制在0.01-1.00，触摸其他区域或者按下返回键退出并保存；点击【材料】，用户可以根据目标物的发射率进行选择。

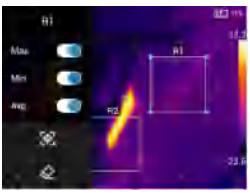
- 光学透过率：在1%~100%范围内选择。

3. 调色板：包含红热、高对比度彩虹、彩虹、熔岩、铁红、黑热、白热；



4. 温度分析：可添加点、矩形、圆形分析对象，可对分析对象进行温差对比；

- 添加/删除分析对象：点击对应的分析对象图标添加分析对象；点击【 】图标，删除分析对象；



- 通过触摸屏长按任意分析对象，系统自动弹出对象编辑页面：
  温度标记：最高温、最低温、平均温；
  居中：居中显示分析对象；
  删除：删除当前分析对象。
- 改变分析对象大小：触摸选中圆形、矩形分析对象，节点均为选中状态且颜色为蓝色标记，移动任意一个节点，改变分析对象的区域范围。

下滑菜单

在实时图像界面下，手指由屏幕顶部向下滑动弹出下滑菜单，此界面可以查看本机内存或外置SD卡的存储容量，还可以进行一些快捷操作，包括：亮度、AP、WiFi、蓝牙、USB虚拟网卡等设置。

第四章 拍摄

拍摄图片

设置菜单中将拍照模式设置为拍照，在实时预览状态下，按下【扳机键】，进行拍照。

录像

设置菜单中将拍照模式设置为录像，在实时预览状态下，按下【扳机键】，进行录像，再次按下【扳机键】，结束录像。

注意：仅UTi384G 机型支持录像功能。

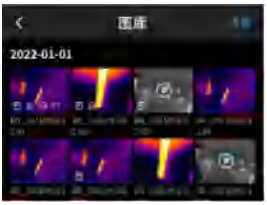
定时拍照

设置菜单中将拍照模式设置为定时拍照，设置定时拍照的时间和张数，在实时预览状态下，按下【扳机键】，开始定时拍照，再次按下【扳机键】，结束拍照。

第五章 图库

图库回放

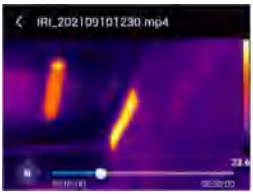
1. 按下机身【图库键】按键，进入图库预览界面；



9. 图片保存：可选择图片的保存方式，有取消、覆盖、另存三种方式保存。

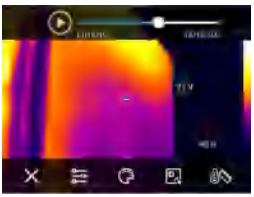
视频编辑

1. 点击图库中MP4视频，进入视频界面；



- MP4视频：可播放、拖动播放、暂停。

2. 点击图库中Irgd视频，进入视频界面；



- Irgd视频操作：可播放、暂停、拖动视频进行播放，且可以对视频的温度参数进行修改，参考菜单栏中的设置方法。

第六章 设置

菜单栏中点击【 】按钮，进入设置界面。

拍照模式

可选择拍照模式：拍照、录像、定时拍照。

本机热点

在配置界面中，输入有效的热点名称camera，密码12345678，点击确定按钮保存成功。点击打开热点开关，热点可被搜索连接。

蓝牙

1. 开启蓝牙耳机，按住通话按钮3 秒，进入配对模式；
2. 打开蓝牙开关，系统自动搜索蓝牙设备，在设备列表中选择蓝牙耳机进行配对；
3. 配对完成后，耳机将在每次开启时尝试重新连接。

目标距离
可根据目标物的距离，在0.5~3.0m范围内选择距离。

自动关机
用户根据自身操作习惯设置自动关机，包括：关/5min/10min/15mim/20min。

图像存储
用户根据自身需求选择图像存储到TF卡或内存。

语言
提供多国语言切换。

日期时间
手动设定系统日期与时间。

本地升级
将升级包放在/GCamera/Update目录下，点击“开始升级”， 检测到有最新的升级包，点击“升级”， 升级完成后重启设备升级为最新的版本。

注意：升级保持电量充足，若升级过程有疑问及时联系厂家。

恢复出厂
将机器恢复为出厂状态，请谨慎操作。

同步数据
处理换SD卡互相使用等因素导致查看不到文件的问题。

版本信息
可查看产品软件版本等相关信息，包含名称、SN号、软件版本号、系统版本号、固件版本号、MAC。

第十章 常见问题汇总

症状	原因	措施
无法开机	电池电量不足	重新充电后再使用电池
	电池接触不良	取出电池，重新放入电池仓内并安装到位
	外接电源的插头没插到位	拔出电源插头，重新插入并推到位
电池电量指示与实际使用情况偏差较大	电池电量耗尽	更换充满电的电池
	电池寿命已到	更换新电池
红外图像不清晰	没有进行对焦	手动对焦使图像清晰
	镜头蒙上水汽或被污染	使用专业设备清洁镜头
可见光图像不清晰	环境太暗	采取适当照明措施
	可见光前端有水汽或被污染	使用专业设备清洁可见光前端
测温不准	没有对目标聚焦	手动对焦使图像清晰，然后再读取温度
	与测温相关的参数设置不对	更改参数设置，或直接恢复默认参数值
	开机立刻测温	为保证测温精度，我们建议您打开热像仪之后，等待5~10分钟再开始测温
	长时间没有校准	为获取精确的测温结果，我们建议您每年将热像仪送回校准一次

本说明书内容若有变更，恕不另行通知

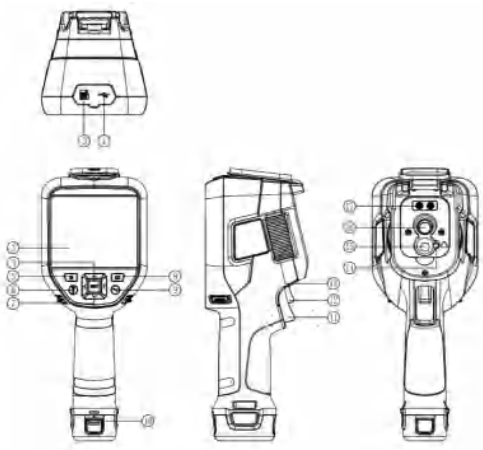
Warnings

1) Please try to keep the device stable and avoid violent shaking during its use;
2) Please do not use or store the instrument at a temperature higher than the permitted operating temperature or storage temperature of the device;
3) Please do not direct the thermal camera at very high intensity radiation sources such as the sun, carbon dioxide lasers or arc welders etc;
4) Please do not block the holes on the device;
5) Do not knock, throw or shake the instrument and accessories to avoid damage;
6) Please do not disassemble the device by yourself, which may cause its damage and loss of warranty rights;
7) Please do not use soluble or similar liquids for the device and cables, which may cause damage to the device;
8) Please do not use the device at a temperature higher than its operating temperature, which may cause its damage;
9) Please observe the following measures when wiping the device:
   - For the non-optical surface, use a clean soft cloth to wipe the non-optical surface of the thermal camera when necessary;
   - For the optical surface, please avoid staining the optical surface of the lens when using the thermal camera and especially avoid touching the lens with your hands because sweat stains on your hands will leave a mark on the lens glass and may corrode the optical coating on the glass surface When the surface of the optical lens is contaminated, wipe it carefully with specialized lens paper;
10) Please do not place the battery in a high temperature environment or near high-temperature objects;
11) Please do not make the positive and negative poles of the battery short-circuited;
12) Please do not place the battery in a humid environment or water.
13) Do not expose the equipment to dust or damp environment. When using in the environment with water, avoid splashing water on the instrument. Cover the lens cover when not using the instrument.
14) When this equipment is not used, please put the instrument and all accessories in a special packing box.
15) Avoid using the random SD card for other purposes.
16) The graphic information of the goods used in the product introduction. The actual products have differences in materials and details due to different batches. Please understand, and please subject to the receipt of specific physical objects.
17) The experimental data provided in the page are theoretical values, which are all from the internal laboratory of our company, and it's only for reference. Customers cannot use it as a reference for ordering and shopping. It is hereby explained! If you have any questions, please contact customer service for detailed consultation.

Chapter 1 Technical Specifications

Devices	UTi256G	UTi384G
Detector Type	Uncooled Focal Plane	
Wavelength Range	7. 5-14μm	
Pixel Size	17μm	
Infrared Resolution	256x192	384x288
FOV	28°x20°	42°x30°
Image Frame Rate	30Hz	
NETD	40mk	
Spatial Resolution	1. 91mrad	
Zoom Lens	Manual Focusing	
Measuring Range	-20℃~550℃	
Measuring Accuracy	±2℃/±2% (take the maximum value, normal temperature 25℃)	
LCD Screen	3. 5" Touch Screen (640x480)	
Visible Light Resolution	5 Megapixels	
Photograph	√	
Video Recording	X	√
Hot /Cold Spot Tracking	√	
MIF	√	
PIP	√	
Temperature Measuring Point	Yes, 3 adjustable dot marks.	Yes, 5 adjustable dot marks.
Temperature Measurement Area	Yes, three adjustable rectangles and three adjustable circles.	Yes, five adjustable rectangles and five adjustable circles.
Parameter	Emissivity, Optical Transmittance, Reflection Temperature, Dew Point	

Chapter 2 Introduction to Product Components



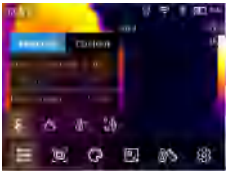
Item	Description	Item	Description
1	USB Type-C Interface	10	Battery Assembly
2	Micro SD Card Slot	11	Shutter Button
3	LCD	12	Laser Button
4	SET Button	13	Focusing Wheel
5	Power Button	14	Laser
6	Lighting Button	15	Visible Light Camera Window
7	Direction Button	16	Infrared Thermal Image Window
8	Library Button	17	Lamp
9	Return Button		

Menu Bar

Click the screen in the real-time image interface to open the menu bar, which includes: temperature measurement parameters, image mode, palette, temperature analysis, isotherm, and shortcut operations for setting.

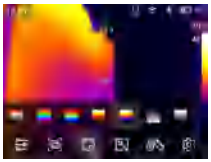
1. Temperature Measurement Parameters: Emissivity, optical transmittance, reflection temperature and dew point can be set according to the target temperature;

- Emissivity: Click to enter the emissivity. Select [custom]. Slide the corresponding value to modify. The range is controlled within 0.01-1.00. Touch other areas or press the return key to exit and save;
  Click [material], and you can select according to the emissivity of the target.

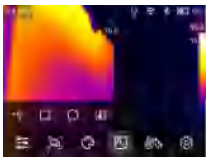


- Optical Transmittance: Select in the range of 1% - 100%.

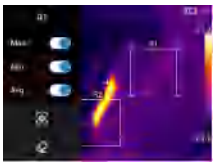
3. Palette: Red hot, high contrast rainbow, rainbow, lava, iron red, black hot, white hot;



4. Temperature analysis: Point, rectangular and circular analysis objects can be added, and the temperature difference of the analysis objects can be compared;



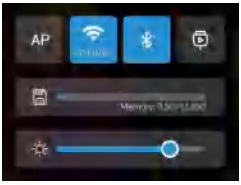
- Add / delete analysis object: click the corresponding analysis object icon to add an analysis object; Click the【 】icon to delete the analysis object;



- Long press any analysis object through the touch screen, and the system will automatically pop up the object editing page;
  Temperature mark: Maximum temperature, minimum temperature and average temperature;
  Center: Center the analysis object
  Delete: Deletes the current analysis object.
- Change the size of the analysis object: touch to select the circular and rectangular analysis objects, and the nodes are in the selected state and the color is blue. Move any node to change the area range of the analysis object.

Slide Menu

Under the real-time image interface, the finger slides down from the top of the screen to pop up the sliding menu. This interface can view the storage capacity of the local memory or external SD card, and can also perform some shortcut operations, including brightness, AP, WiFi, Bluetooth, USB virtual network card and other settings.



Chapter 4 Shooting

Photograph

In the setting menu, set the photographing mode to photographing. In the real-time preview state, press the 【Shutter】 button to take photos.

Video

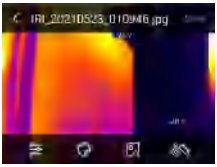
In the setting menu, set the photographing mode to video recording. In the real-time preview state, press the 【Shutter】 button to record, and then press the 【Shutter】 button again to end the recording.

Note: Only UTi384G supports video recording.

Timed Photography

In the setting menu, set the photographing mode as timed photography, and set the time and number. Press the 【Shutter】 button in the real-time preview state to start timed photography, and press the 【Shutter】 button again to end photographing.

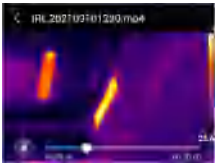
8. In picture editing, you can modify the temperature measurement parameters, palette, temperature analysis and isotherm of the picture, and save the modified picture. Refer to the setting method in the menu bar.



9. Image Saving: you can choose the way to save the image, including cancel, overwrite and save as.

Video Editing

1. Click MP4 video in the gallery to enter the video interface;



- MP4 Video: It can be played, dragged and paused.

Temperature Alarm

The alarm temperature threshold is divided into high temperature and low temperature:

Turn on the high temperature alarm switch, and the user can set the alarm temperature threshold as required, such as (35°C). Return to the real-time image interface. If the temperature in the scene is higher than 35°C, the device will have a high temperature icon to alarm until the alarm ends;

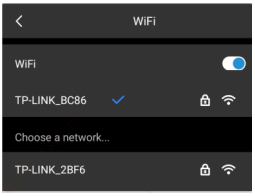
Turn on the low temperature alarm switch, and the user can set the alarm temperature threshold as required, such as (32°C). Return to the real-time image interface. If the temperature in the scene is lower than 32°C, the device will have a low temperature icon to alarm until the alarm ends;

If the high temperature alarm and low temperature alarm switches are turned on at the same time, the high temperature + low temperature alarm will be triggered.

Brightness

Slide to adjust the brightness of the screen.

Data Connection



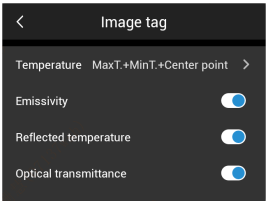
WiFi

1. Turn on the WiFi switch to search the nearby network;
2. Select the network to be connected. Enter the password and connect.

Note: To ensure reliable WiFi signal connection and stable data transmission. Please try to ensure that the connection distance is within 10m and there are no obstacles (such as partition walls).

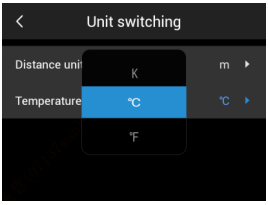
Image tag

Click the image tag to turn on the temperature, emissivity, reflection temperature, optical transmittance, color band, time and date, battery power, and display it on the real-time image.

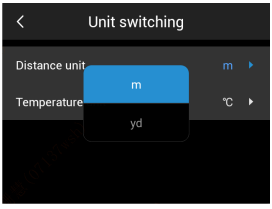


Unit Switching

Users choose the temperature units according to their own operating habits: Celsius, Fahrenheit, Kelvin.



Users choose the distance unit according to their own operation habits: meters and yards.



Version Information

You can view the product software version and other related information.

Chapter 7 Connection With External Equipment

This product can use USB data cable to connect with external devices.

1. View internal storage files.

After connecting the USB cable to the computer, open my computer, check the internal storage disk information. Click to enter the memory device, and find the folder where the pictures are stored. The specific path is... UNIT\ Internal Storage Device \DCIM\GCamera\Sourceimage.

Note: The file name beginning with IRI is infrared image, and the file name beginning with VIS is visible image.

Chapter 10 Summary of Common Problems

Problems	Reasons	Measures
Unable to power on	Low battery	Recharge the battery before using it
	Poor battery contact	Take out the battery, put it back into the battery compartment and install it in place
	The plug of the external power supply is not plugged in	Unplug the power plug, reinsert it and push it into place
The battery power indication deviates greatly from the actual use	Battery drain	Replace the fully charged battery
	Battery life has expired	Replace with a new battery
The infrared image is not clear	No focus	Manual focusing makes the image clear
	The lens is covered with moisture or polluted	Clean the lens with professional equipment
The visible light image is not clear	The environment is too dark	Take appropriate lighting measures
	The visible light lens is covered with moisture or polluted	Clean the visible light lens with professional equipment
Inaccurate temperature measurement	No focus on the target	Focus manually to make the image clear, and then read the temperature
	The parameters related to temperature measurement are not set correctly	Change the parameter settings, or directly restore the default parameter values
	Measure temperature immediately after startup	In order to ensure the accuracy of temperature measurement, we recommend that you turn on the thermal imager and wait 5-10 minutes before starting the temperature measurement

彩盒 菲林做货要求

序号	项目	内容
1	尺寸	110*150mm
2	材质	封面128双铜+内页60g双铜
3	颜色	四色
4	外观要求	完整清晰、版面整洁，无斑墨、残损、毛边、刀线
5	装订方式	骑马钉
6	表面处理	
7	其它	无
版本		REV. 0

DWH 设 计	宣浩	MODEL 机型: UTi256G	Part NO. 物料编号: 1104
CHK 审核			
APPRO. 批准		UNI-T® 优利德科技（中国 UNI-TREND TECHNOLOGY (	