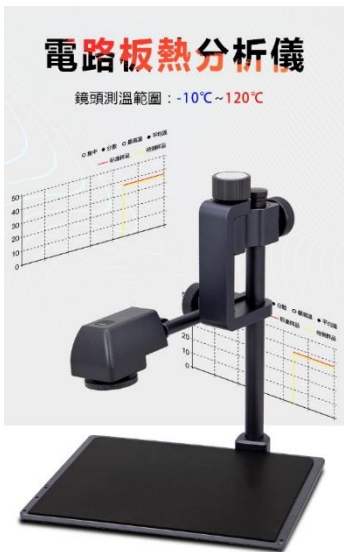


# VICTOR®

## 勝利儀器

### VICTOR 380J 電路板熱像分析儀



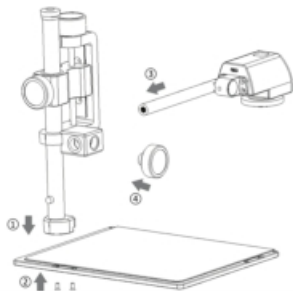
## 產品簡介

VICTOR 380J是一款適用於電路設計熱量模擬、電路板快速維修和不良電子料檢測等領域的新一代PCBA紅外熱成像分析儀。

No.	物料	數量
1	攝像頭	1
2	支架	1
3	底板	1
4	USB Type-C數據線	1
5	說明書	1
6	六角螺絲	4
7	六角扳手	1

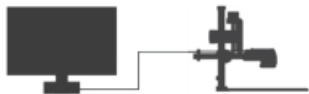
## 產品簡介

1. 根據底板的方向，將支架插入底板。
2. 用2枚螺絲將支架固定。
3. 將攝像頭插入支架對應的孔中。
4. 旋緊旋鈕固定攝像頭。



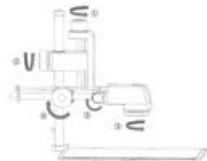
## 快速使用

將附件中的USB Type-C線纜連接電腦和相機的USB口（建議連接USB 3.0或以上的介面），打開VICTOR 380J軟體，即可開始觀察被測物的紅外熱成像視頻。

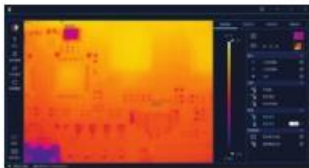


通過調節下圖中旋鈕可以改變視頻顯示大小、清晰度和角度。

1. 攝像頭高低微調旋鈕，可以細微調節攝像頭高度，細微改變視頻中被測物的大小。
2. 攝像頭高低粗調旋鈕，可以快速調節攝像頭高度，快速改變視頻中被測物的大小。
3. 調焦旋鈕，可以使畫面中被測物視頻清晰。
4. 攝像頭固定旋鈕，可以調節攝像頭前後位置。
5. 攝像頭傾角旋鈕，可以調節攝像頭上下傾角。

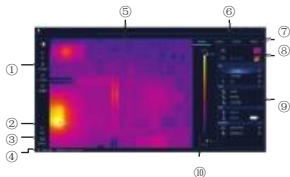


按兩下Setup.exe圖示，可以運行本產品的程式，顯示如下介面：



## 軟體功能說明

本軟體的主介面功能塊如下：



No.	功能塊	詳細說明
1	圖形操作	對畫面進行圖形操作，如切換不同的色板，旋轉，標記，重置等功能。 提供軟體中所有功能項的
2	教程	詳細說明。
3	市場及技術支援郵箱	所有的產品需求，市場銷售方面溝通，以及產品的技術支援，均可以和這個郵箱溝通。
4	相機狀態	顯示相機的連接狀態，綠色表示相機已連接電腦軟體，紅色表示相機未連接和電腦軟體。
5	即時視頻	顯示當前攝像機觀察到的被測物熱成像即時視頻。可以通過此處對軟體及相機進行設置。
6	設置	可以在此處切換不同的功能區。
7	功能區	拍照
8	和錄影	和錄影。
9	功能按鈕	對軟體進行各種豐富的功能操作。

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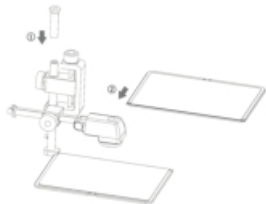
此處顯示當前畫面中的實時最高溫和最低溫，通過調整可調節箭頭的溫度，可以改變即時視頻中圖像的顯示模式。

注：本軟體將會不定期更新升級，說明書介面可能和最新版本軟體有一定的差異。

## 參數

參數	規格
熱成像	260*200
解析度	
幀頻	25Hz
NETD	70mK@25°C
鏡頭	
參數	視場角 水準 34.4，垂直 25.8
鏡頭	4mm可調焦鏡頭
測溫	
範圍	-10~120°C
測溫精度	±5°C或者±5%
供電	DC 5V (USB Type-C)
介面	電源開關 按下電源鍵1秒開機，3秒關機
連接方式	USB線連接電腦使用
尺寸	標準配置(單底板：220mm x 172mm，高度241mm)
物理參數	選配(拼合雙底板：346mm x 220mm，延長支撐杆341mm)
重量	標準配置：1.1kg 選配件：0.5kg

工作環境	工作溫度	-10℃~55℃
	工作濕度	<95%
軟體最低需求	系統要求	Win10(推薦) win7
	電腦要求	I3以上處理器，4G以上記憶體
	更新要求	可連接internet進行手動或自動更新



## 特點

- 可快速查找電路板漏電、短路的器件位置；
- 圖像清晰，可觀看晶片管腳熱狀態；  
3D熱像圖可以檢測超小電流漏電，能夠探測到良品板和缺陷板間非常微小的溫度變化和差異，其他方式很難檢測出來；
- 指導熱設計、測試、驗證、優化、產品選型、說明延長產品壽命；
- 曲線資料方便研發設計者進行實驗資料的記錄。

## 獲取軟體

可以通過<http://www.china-victor.com/uploadfile/2021/0604/380j.rar>下載。

## 擴展部件

- 可另外購買擴展部件，以適應更大的被測物。
- 將螺桿上方旋鈕選出，將擴展的螺桿旋入
- 支架立杆，將旋鈕旋入。  
將拼接的底板連接原有底板，用配件的螺絲和固定件固定。

## 三腳架擴展

攝像頭後端有標準1/4英寸孔，將攝像頭拆下來之後可以連接標準三腳架，方便觀測更大的目標物。



## 保修政策

自購買之日起，如出現產品品質問題，在一個月內可以免費更換，一年內保修，超出一一年之後，根據損壞部件的成本維修。

## 重點注意事項

- 不可以直接觀測高能量目標，如太陽、鐳射等，否則將導致熱成像儀不可逆轉的物理損壞。
  - 必須採用標準的5V直流電源供電。
  - 防止水潑濺在攝像頭上。
  - 暴力旋轉鏡頭及旋鈕。
- 不可以超出溫濕度環境要求的情況下使用

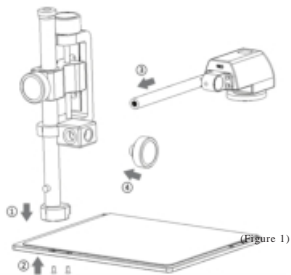
## Introduction

Victor 380J is a new generation of PCBA infrared thermal imaging analyzer, which is suitable for thermal simulation of circuit design, rapid maintenance of circuit board and detection of defective electronic materials.

No.	Material	Quantity
1	Thermal Camera	1
2	Bracket	1
3	Bottom plate	1
4	USB Type-C Cable	1
5	User Manual	1
6	Hexagon screw	4
7	Hexagon wrench	1

## How to install quickly?

- Step 1 - According to the direction of the bottom plate screw hole, insert the bracket into the bottom plate screw hole.
- Step 2 - Fix the bracket on the bottom plate with 2 screws.
- Step 3 - Insert the thermal camera into the corresponding hole of the bracket.
- Step 4 - Fix the thermal camera by tightening the knob.



## How to get start quickly?

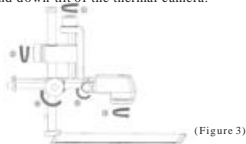
Connect the USB Type-C cable in the accessories to the USB ports of the computer and the thermal camera. It is recommended to connect to a USB 3.0 or above port. Run the VICTOR 380J, you can start to observe the thermal imaging video of the UUT (Unit Under Test).



(Figure 2)

The user can change the video size, clarity and angle by adjusting the knob in the Figure3.

1. The thermal camera height fine-tuning knob can finely adjust the thermal camera height and change the size of the UUT in the video.
2. The thermal camera height coarse adjustment knob can quickly adjust the thermal camera height and quickly change the size of the UUT in the video.
3. The focus knob can make the video clear in the screen.
4. The thermal camera fixed knob, users can adjust the front and rear position of the thermal camera.
5. Thermal camera tilt knob, users can adjust the up and down tilt of the thermal camera.



(Figure 3)

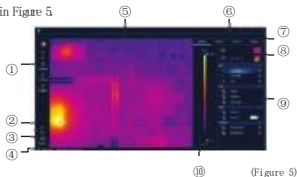
Double-click the Setup.exe icon to run the program, and the following interface is displayed.



(Figure 4)

## Software function

The main interface function block of this software is shown in Figure 5



(Figure 5)

No.	Feature	Detailed description
1	adjustment Image	To adjust the video in the image, color palettes, such as rotating, with marking, resetting and other functions. Provide a detailed
2	Tutorials	description of all functions in the software.
3	Contact us	All requirement, marketing communication and product technical support can be communicated with this mailbox. Shows the connection status of the thermal camera and the software.
4	Thermal camera status	The green light means the thermal camera is connected, and the red light means the thermal camera is disconnected.
5	Real-time video	Display the real-time video of the thermal imaging of the measured object observed by the thermal camera.
6	Setting	The parameter configuration of software and thermal camera.

7	Functions	The user can switch different function blocks.
8	Screenshots and video records	The user can take screenshots and video records.
9	Function button	All functions are in this area.
10	Color bar	The real-time highest temperature and lowest temperature in the video are displayed here. By adjusting the temperature of the adjustable arrow, the display mode of the image in the real-time video can be changed.

\* The software will continue to be updated, the up-to-date software interface may be different with the manual.

## Parameter

Parameter		Specification
Thermal camera parameters	Thermal imaging resolution	260*200
	Frames	25Hz
	NETD	70mK@25℃
	FOV	Horizontal angle 34.4°
		Vertical angle 25.8°
	Lens	4mm Adjustable focus lens
	Temperature range	-10~120° C (14~248° F)
	Temperature measurement accuracy	±5° C or ±5%
	Power	DC5V (USB Type-C)

Interface	Power on/off	Long press the power button for 1 second to power on, long press 3 seconds to power off.
	Connection method	USB Type C Cable
Dimensions	Dimension	Standard: 220mm x 172mm x 241mm Assemble additional accessories: 346mm x 220mm x 341mm
	Net weight	Standard: 1.1kg Expansion: 0.5kg
Work Environment	Temperature	-10°C ~ 55°C (14°F ~ 131°F)
	Humidity	<95%
Minimum software and hardware requirement	System	Win10 (recommended)/ Win7
	CPU & RAM	i3 & 4G
	Update	Manual or automatic update via internet

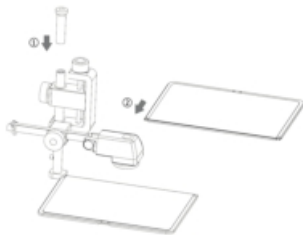
## How to download software?

Can pass <http://www.china-victor.com/upload-file/2021/0604/380j.rar> Download.

## Expansion accessories

Users can purchase expansion accessories to fit larger UUT.

To release the upper knob of the bracket, add the expansion pole to the bracket, tighten the knob. Add the additional bottom plate to the standard bottom plate, and tighten it with accessory screws.



(Figure 6)

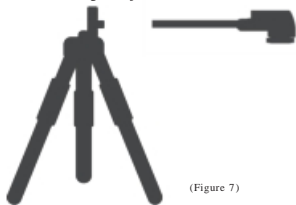
## Features

- The user can quickly locate of the current leakage or short circuit on PCBA.
- With clear images, users can even observe the chipset pins of thermal video.
- In 3D mode, users can detect ultra-small current leakage. To detect very small temperature difference between good and defect boards, which is difficult by other instruments.
- To help thermal design, testing, verification, optimization, components selection, and help extend product life cycle.

Curve data is convenient for R&D engineers to record thermal experimental data.

## Tripod expansion

There is a standard 1/4" hole on the back of the thermal camera, which can be disassembled separately and connected to a standard tripod to observe larger objects.



(Figure 7)

## Warranty Policy

Exchange for free in one month and warranty within one year if any product defect. The repair cost will be charged according to the damaged parts cost if out of warranty.

## Attentions

- Do not directly observe high-energy targets, such as the sun, lasers etc., it will irreversible physical damage the thermal camera.
- Please use standard 5V DC power supply.
- Be careful not to splash water on the thermal camera.
- Do not violently rotate the lens and knobs.
- The user's working environment must not exceed the temperature and humidity requirement.



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