

ZILLION-TECHS

DEDICATED TO INFRARED TECHNOLOGIES

短波红外相机用户手册

C A M E R A U S E R M A N U A L

USB3.0 Interface

2022.06

众林科技

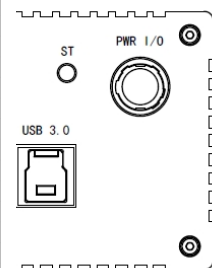
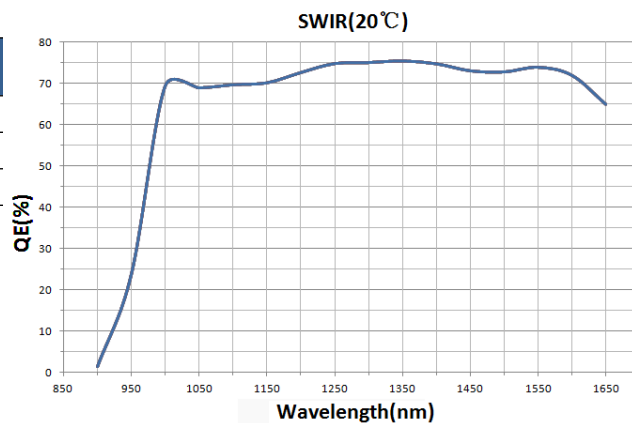
1.1 Parameter

Item	Description
Sensor	GH640Pro
Resolution	640 (H) x 512 (V)
Pixel Pitch	15μm
Wavelength	0.9μm ~ 1.7μm
Dynamic Range	≥60dB
Frame Rate	300fps
Synchronization	Internal sync / external trigger
Gain Mode	HG/MG/LG Adjustable
Exposure Time	0.2μs to 3.3ms
Noise	Type 60e- (MG CDS)
Full Well Capacity	Type 90ke-
Automatic Control	Automatic brightness control, target brightness can be set
Image Enhancement	NUC、LUT、 Contrast enhancement, Sharpness enhancement
TEC	TEC1, Min.ΔT=20K
Lens Mount	C-Mount
Camera Interface	USB3.0
I/O Port	1xOPT IN、 1xTTL IN、 1xOPT OUT、 1xTTL OUT
Power Supply	12V DC (±10%), 1.5 A inrush
Power Consumption	Type < 5W (TECLESS)
Dimension	55mm (W) x 55mm (H) x 66mm (L)
Weight	240g
Ambient Condition	Working Temperature: -40 ~ +70 Storage Temperature: -45 ~ +85 Humidity: 10% to 90%

1.2 Quantum Efficiency

2.1 I/O Port

I/O Port
PWR I/O
USB3.0
ST

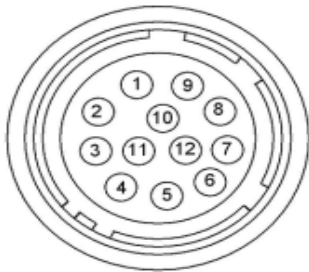


接口示意

2.2 I/O Definition

2.2.1 Power and I/O interface

The power supply and IO interface on the rear panel of the camera use Hirose male miniature locking socket #HR10A-10R-12PB (71). Please use the corresponding matching #HR10A-10P-12S (73) for power supply input and IO signal transmission.



Pin	Signal	Usage
1	GND	GND
2	+12V DC	+12V DC power supply
3	Reserved	/
4	Reserved	/
5	OUT2 RTN	General Purpose Output 2, Contact 1 (Opto-isolated)
6	OUT1 RTN	General Purpose Output 1 Return (TTL)
7	OUT1	General Purpose Output 1 (TTL)
8	IN1	General Purpose Input 1 (Opto-isolated)
9	IN2	General Purpose Input 2 (TTL/LVTTL)
10	IN1 RTN	General Purpose Input 1 Return (Opto-isolated)
11	IN2 RTN	General Purpose Input 2 Return (TTL/LVTTL)
12	OUT2	General Purpose Output 2, Contact 2 (Opto-isolated)

2.2.2 USB Port

Standard USB 3.0 Type B interface.

2.2.3 Camera working status indicator

The camera has an LED status indicator, which is used to indicate the current operation of the camera, which is convenient for quick troubleshooting (priority increases from top to bottom).

LED Status	Description
Red light is on	Working Normally
Off	Something is wrong with Power Supply
Flickering	Error Indication

3.1 Dimensions

