

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

Camera Link Interface

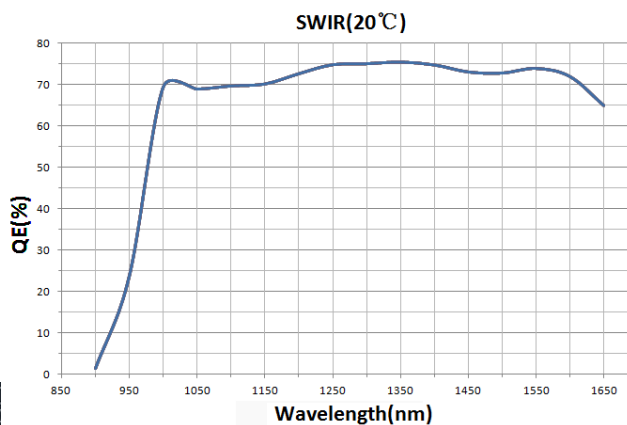
2021.09

众林科技

1.1 Parameter

Item	Description
Sensor	GH640
Resolution	640 (H) x 512 (V)
Pixel Pitch	15μm
Wavelength	0.9μm ~ 1.7μm
Dynamic Range	≥60dB
Frame Rate	Max 358fps
Gain Mode	HG/MG/LG Adjustable
Exposure Time	100μs to 19.9ms
Noise	Type 75e- (MG)
Full Well Capacity	Type 80ke-
Automatic Control	Automatic brightness control, target brightness can be set
Image Enhancement	Contrast enhancement, Sharpness enhancement
Lens Mount	C-Mount
Camera Interface	CameraLink Base
Analog Video Output	Standard PAL Output (CameraLink, 50fps/200fp)
Power Supply	6V DC (Range 5.5V–12V), 1.5 A inrush
Power Consumption	Type < 3W (TECLESS)
Dimension	38mm (W) x 38mm (H) x 65mm (L)
Weight	130g
MTBF	TBD
Ambient Condition	Working Temperature: -40 ~ +70 Storage Temperature: -45 ~ +85 Humidity: 10% to 90%

1.2 Quantum Efficiency



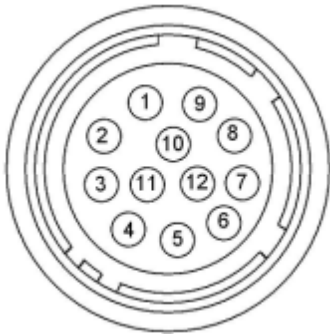
2.1 I/O Port

I/O	Power and I/O interface
PWR	Camera Link BASE
Cam	Camera working status indicator
ST	Support PoCL power supply.
*No	

2.2 I/O Definition

2.2.1 Power and I/O interface

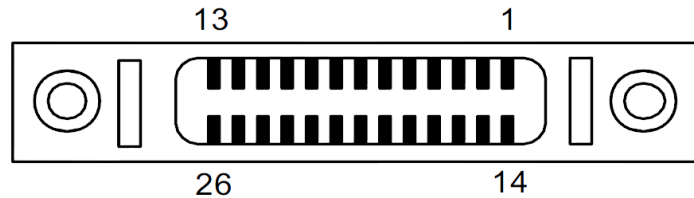
The power supply and IO interface on the rear panel of the camera use Hirose male miniature locking socket #HR10A-10R-12PB (71). Please use the corresponding matching #HR10A-10P-12S (73) for power supply input and IO signal transmission.



Pin	Signal	Usage
1	GND	GND
2	+6V DC	+6V DC
3	Reserved	
4	Reserved	
5	Reserved	
6	Reserved	
7	Reserved	
8	Reserved	
9	Reserved	
10	Reserved	
11	Reserved	
12	Reserved	

2.2.2 Camera Link Interface

The Camera Link interface uses a standard Mini-Camera Link connector, and the output format is Base 24bit RGB.



Camera Link BASE

Cable Name	Pin	CL Signal	Type	Description
Base Wire	1	6V DC Power	Power	Power Base
Base Wire	14	Power Return	Ground	Ground
- PAIR 1	2	-X0	LVDS - Out	Camera Link Channel Tx
+ PAIR 1	15	+X0	LVDS - Out	Camera Link Channel Tx
- PAIR 2	3	-X1	LVDS - Out	Camera Link Channel Tx
+ PAIR 2	16	+X1	LVDS - Out	Camera Link Channel Tx
- PAIR 3	4	-X2	LVDS - Out	Camera Link Channel Tx
+ PAIR 3	17	+X2	LVDS - Out	Camera Link Channel Tx
- PAIR 4	5	-X CLK	LVDS - Out	Camera Link Clock Tx
+ PAIR 4	18	+X CLK	LVDS - Out	Camera Link Clock Tx
- PAIR 5	6	-X3	LVDS - Out	Camera Link Channel Tx
+ PAIR 5	19	+X3	LVDS - Out	Camera Link Channel Tx
+ PAIR 6	7	+SerTC	LVDS - In	Serial Data Reception
- PAIR 6	20	-SerTC	LVDS - In	Serial Data Reception
- PAIR 7	8	-SerTFG	LVDS - Out	Serial Data Sending
+ PAIR 7	21	+SerTFG	LVDS - Out	Serial Data Sending

- PAIR 8	9	-CC1	LVDS - In	User Selectable Input
+ PAIR 8	22	+CC1	LVDS - In	User Selectable Input
+ PAIR 9	10	+CC2	LVDS - In	User Selectable Input
- PAIR 9	23	-CC2	LVDS - In	User Selectable Input
- PAIR 10	11	N/C	N/C	N/C
+ PAIR 10	24	N/C	N/C	N/C
+ PAIR 11	12	N/C	N/C	N/C
- PAIR 11	25	N/C	N/C	N/C
Base Wire	13	Power Return	Ground	PoCL Ground
Base Wire	26	6V DC Power	Power	PoCL Power Base

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

2.3 Dimensions

