

CL1 Series 10 Gigabit Ethernet Port Industrial Line Scan Camera



Product Features

- Gigabit Ethernet interface, with a maximum transmission distance of up to 100 meters.
- Compact design, supports 5-sided mounting, easy to integrate.
- 1024MB onboard buffer for data transfer or image retransmission in burst mode.
- Supports software trigger/hardware trigger/free-run capture and other acquisition modes.
- Supports ISP (Image Signal Processing) functions such as gamma correction, LUT (Look-Up Table), flat field correction, etc.
- Compatible with GigE Vision protocol and GenICam standard.

Product model and parameters

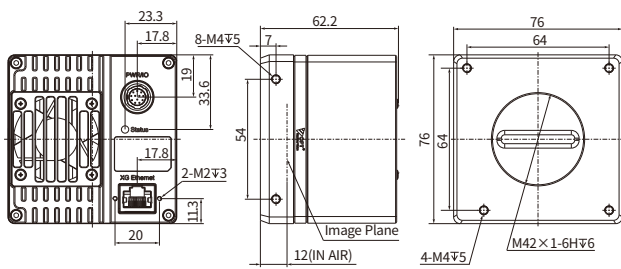
Sensor Type	Global Shutter CMOS
Image Format	Mono8/10
ROI	Supports
Binning	Does not support
Mirror	Supports horizontal mirroring
Gamma	0~3.999
Image Acquisition Modes	Software trigger/hardware trigger/free run
Image Buffer	1024MB image cache
Storage Channel	Supports saving 2 sets of user-defined configurations
Digital I/O	2-core Hirose interface: 2 channels differential input, 2 channels optocoupler isolated input, 2 channels optocoupler isolated output, 1 channel camera power input
Power Supply	DC power supply through Hirose interface, voltage range 12V ~ 24V
Data Interface	10GigE
Standards	Compliant with GigE Vision 2.0, GenICam
Temperature	Storage temperature: -30°C~+80°C; operating temperature: 0°C~+50°C

Product model and parameters

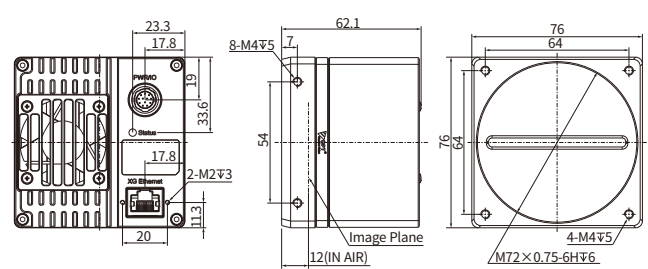
Model	Resolution	Pixel Size (μm ²)	Chip Type	Line Frequency (KHz)	Optical Interface	Exposure Time	Product Dimensions (mm)	Power Consumption	Black and White/Color
OPT-CL1-M4-XG3-01	4096×1	7.0×7.0	CMOS	200	M42×1.0	3.9μs~50ms	76×76×62.2	13.56W@24V	M
OPT-CL1-M8-XG3-01	8192×1	7.0×7.0	CMOS	149	M72×0.75	4.9μs~50ms	76×76×62.1	13.8W@24V	M
OPT-CL1-M16-XG3-01	16384×1	3.5×3.5	CMOS	70	M72×0.75	3.9μs~50ms	76×76×62.1	13.6W@24V	M

Dimensions (mm)

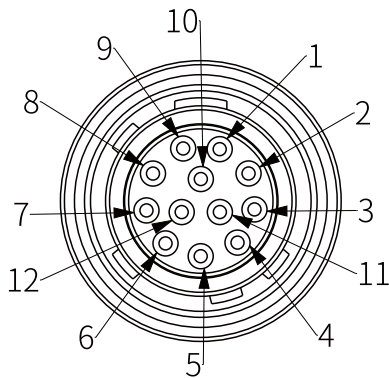
OPT-CL1-M4-XG3-01



OPT-CL1-M8-XG3-01/OPT-CL1-M16-XG3-01



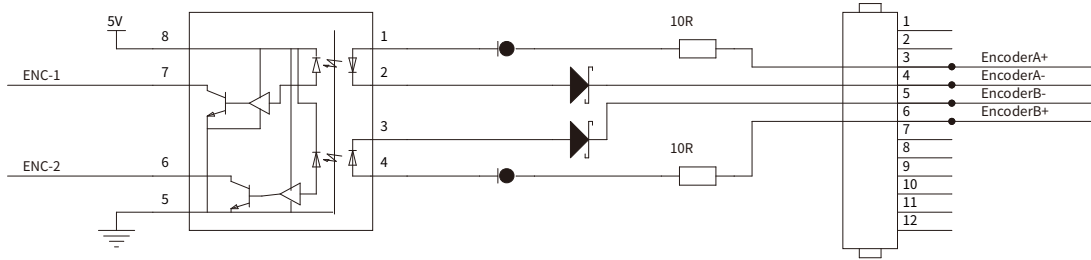
IO Interface Description



Pinouts	Signal	Explanation
1	GND	Power Ground
2	power	DC 24V Camera Power
3	EncoderA+	Encoder Differential Input A+
4	EncoderA-	Encoder Differential Input A-
5	EncoderB-	Encoder Differential Input B-
6	EncoderB+	Encoder Differential Input B+
7	OUT_GND	Opto-isolated Output Ground
8	Lineout1	Opto-isolated Output 1
9	Lineout2	Opto-isolated Output 2
10	IN_GND	Opto-isolated Input Ground
11	Line2	Opto-isolated Input 2
12	Line1	Opto-isolated Input 1

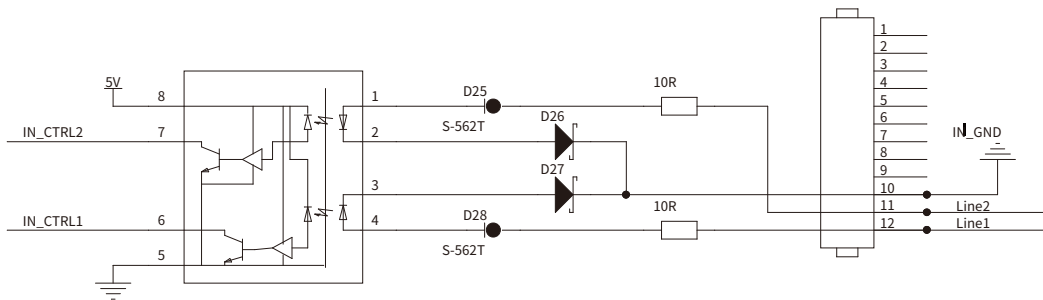
IO Circuit Diagram

1. Opto-isolated Differential Input



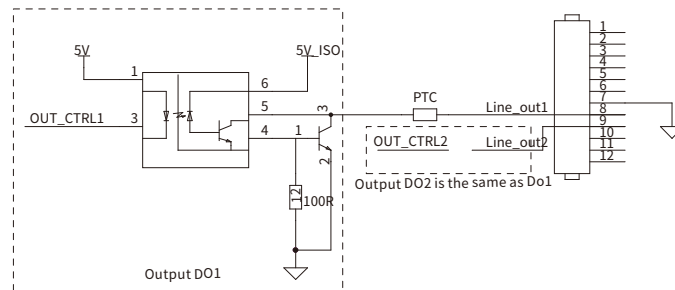
Encoder Trigger Input Circuit Diagram

2. Opto-isolated Input



Frame Trigger Input Circuit Diagram



3. Opto-isolated Output





Digital Output Circuit Diagram

Accessories

10 Gigabit Ethernet Camera Universal Capture Card

Model	OPT-GXG-J2-P-01	OPT-G1G-J4-P-02
Chipset	SP1000A	Intel I210-AT
Bus Interface	4×PCIe 3.0	4×PCIe 2.0
Physical Interface	2×SFP+	4×RJ45
Transfer Speed	1/10 Gbps	10/100/1000 Mbps
OS Support	Windows 7/Windows 10/Windows 11, Linux	Windows 7/Windows 10/Windows 11, Linux
Appearance Illustration		

10 Gigabit Ethernet Camera Universal Cable

Cable Type		12-pin IO Cable with Power Adapter	12-pin IO Cable	Data cable	
Cable Material/ Length	Static	3M	CB-HR10-12F010-S3M	CB-HR10-12F004-S3M	CB-10GE-RJ45SRJ45-S3M
		5M	CB-HR10-12F010-S5M	CB-HR10-12F004-S5M	CB-10GE-RJ45SRJ45-S5M
		10M	CB-HR10-12F010-S10M	CB-HR10-12F004-S10M	CB-10GE-RJ45SRJ45-S10M
	High Flexibility	3M	CB-HR10-12F010-R3M	CB-HR10-12F004-R3M	CB-10GE-RJ45SRJ45-R3M
		5M	CB-HR10-12F010-R5M	CB-HR10-12F004-R5M	CB-10GE-RJ45SRJ45-R5M
		10M	CB-HR10-12F010-R10M	CB-HR10-12F004-R10M	CB-10GE-RJ45SRJ45-R10M
Appearance Illustration					

10 Gigabit Ethernet Camera Universal Module Plugin

Model	SFP+-10G-T
Compatible Camera	This module is a 10 Gigabit optical to electrical port module, designed to be used with 10 Gigabit Ethernet port cameras.
Appearance Illustration	