

# IDG-4500-M-G-CL

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## High resolution & wide dynamic range industrial camera

Using the new high-performance scientific CMOS chip with ultra-high resolution of 7920x5436 @2.8 $\mu$ m, it can achieve 5 $\mu$ m defect detection; the camera innovative signal pre-processing function can effectively improve MURA detection rate, the contrast can be as low as 1%, showing significant advantages in the field of high-efficiency screen inspection applications.



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## ◆ Key features

- 7920x5436@2.8 $\mu$ m
- 16fps @7920x5436
- Support FFC, DPC
- Support hardware/software trigger
- Firmware update

## ◆ Applications

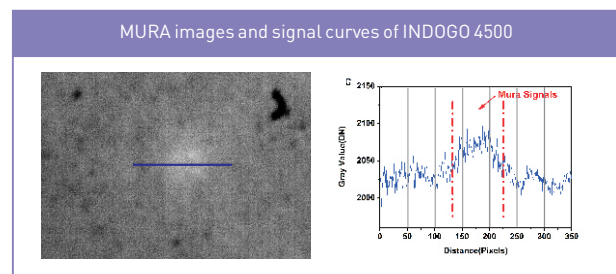
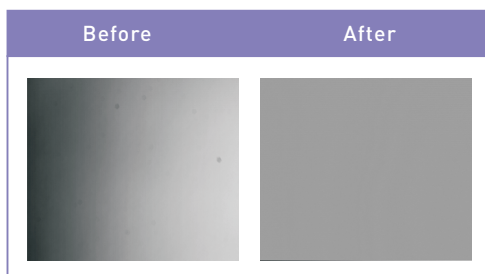
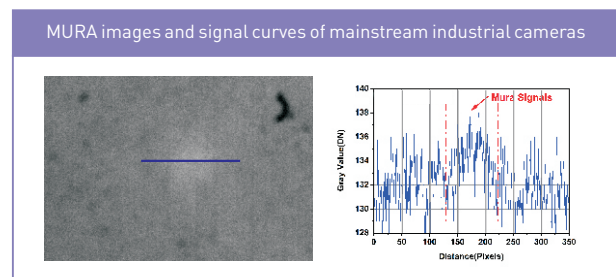
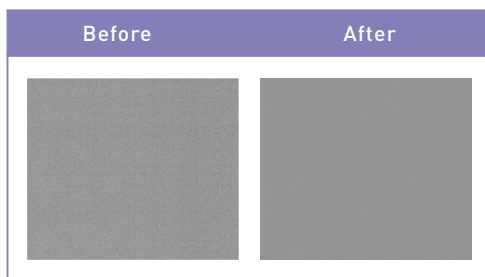
- FPD/PCB inspection
- Semiconductor inspection
- Document scanning
- Aerial mapping
- LCD/OLED screen inspection

## ◆ DSNU/PRNU Calibration

- The background is more uniform and it's easier to recognize valid signals

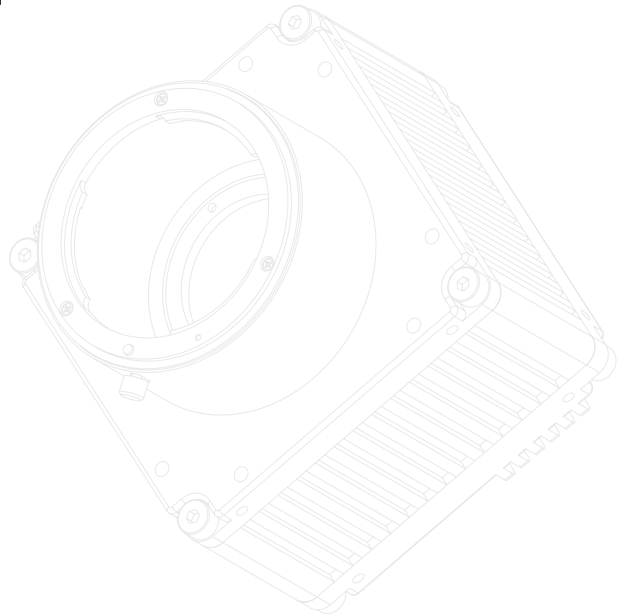
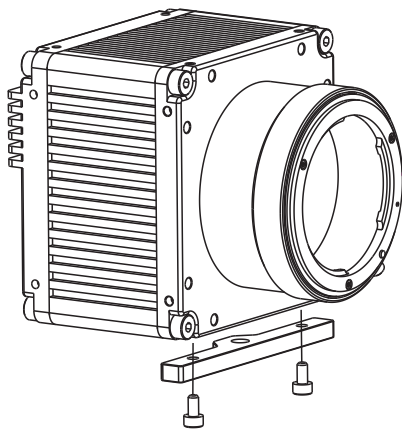
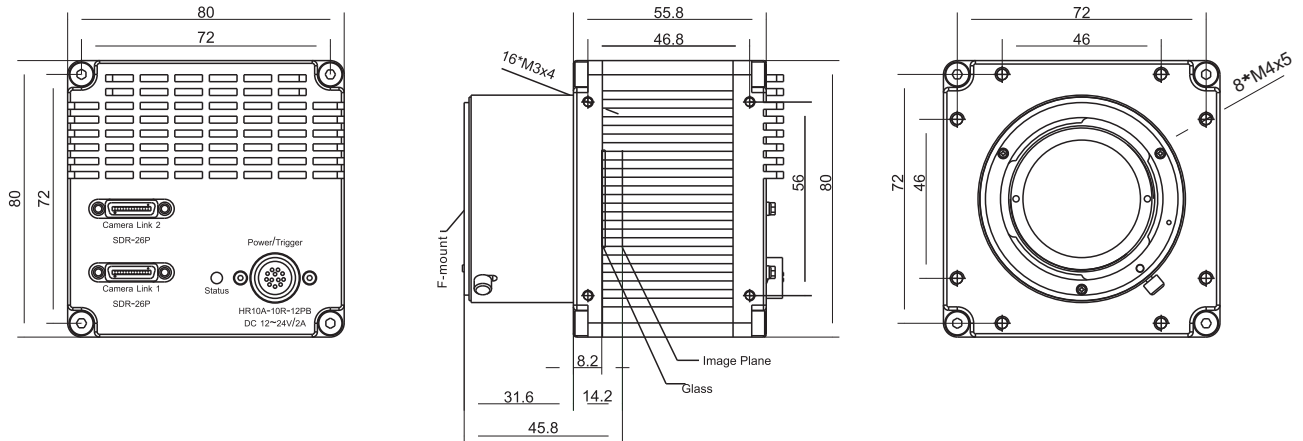
## ◆ Innovative Signal Quantization

- Typical Application-LCD/OLED screen inspection  
Can effectively improve the MURA detection rate

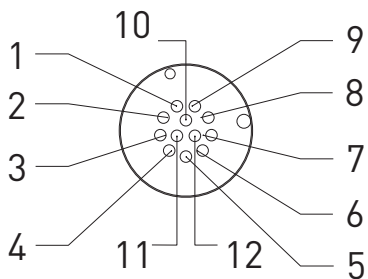


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## Mechanical Design



## Power supply and trigger interface



**Hirose Connector** – HR10A-10R-12PB

**Power** – 1: Power GND 2: 12-24V DC

**Trigger** – 3: RS232 TXD; 4: RS232 RXD;

5: Digital GND; 6: Opto OUT 0; 7: Opto OUT 1; 8: Opto OUT 2;

9: Opto OUT GND; 10: N/A; 11: Opto IN+; 12: Opto IN-



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## ◆ Specification

Model	Product model	IDG-4500-M-G-CL
Basic parameters	Sensor type	CMOS
	Resolution	7920x5436
	Sensor size	1.7"
	Color	Monochrome
	Shutter type	Global shutter
	Pixel size	2.8 $\mu$ m x 2.8 $\mu$ m
	Quantum efficiency	65% @480nm
	Read noise	1.45e-
	Dynamic range	68.3dB
	Frame rate	16fps@8bit,7fps@12bit
Feature set	Bit depth	8bit, 12bit
	Analog gain	4~20
	Exposure mode	Manual exposure
	Exposure time	12 $\mu$ s~10s
	Image processing	FFC correction, DPC correction, ROI Support 1x1, 2x2binning
	External trigger mode	Standard, synchronous mode External trigger source, exposure time mode, polarity and delay time configurable
	Output	High level, Low level, Exposure, Programmable pulse output Polarity, pulse period and delay time configurable
Interface Settings	Cooling method	Fan cooling optional
	Optical interface	F-mount, M58
	Data interface	CameraLink Medium / CameraLink Full
	Data transfer	2 SDR-26 CameraLink
	Input signal	1X (2.5-30V)
	Output signal	3X (2.5-30V)
Other information	Power supply	12~24V
	Power consumption	<6W
	Dimensions	Camera: 80x80x107mm
	Weight	Camera: 650g
	Operating temperature	-20°C~60°C
Storage temperature	-30°C~70°C	