

# Polarization Camera



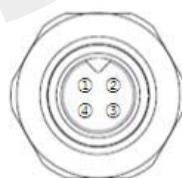
## Specification

Specification	MC-A500P-163
Sensor Format	2/3 inch
Image Sensor	CMOS
Pixel Size (μm)	3.45 x 3.45
Effective Pixels	2464 x 2056
Pixclk	74.25 Mhz
Max Frame Rate	163 fps (135 fps)
Scanning System	Progressive
Scanning Method	Full / ROI(Horizontal+Vertical) / Reverse(X,Y,All)
Sync. System	Internal(Freerun), External, Software trigger via Frame Grabber
Trigger Mode	Fixed shutter, Pulse width shutter
pixel Formats	Mono8/10, Bayer8/10, RGB8Polarization, RGB8Degree
Output Format Selector	DoLP, AoP, Intensity(S0), 0Degree, 45Degree, 90Degree, 135Degree
ADC	8/10 bit
Gain	Analog : 0dB ~ 24dB (1x ~ 15.8x) / Digital : 0dB ~ 18dB (1x ~ 8x)
Gamma	Adjustable LUT (10bit to 10bit)
Auto Gain/Exposure	Off/Once/ Continuous
ROI	Horizontal / Vertical ROI Support
Video I/F	Camera Link Full interface
Function Control	GainAuto, ExposureAuto, Acquisition Frame Rate(Adjustable), Noise Reduction, Defect correction
Lens mount	C mount
Num. Of C/L Tap	10 Tap (exclude RGB mode)
C/L Pixel Freq.	85 Mhz
Optical accuracy	Optical center ≤ ± 0.2 mm
Power Supply	12~24VDC ± 10% or PoCL
Consumption	2.2W
Weight	< 50g
Dimension	29 x 29 x 29 mm (Without mount and back connector)
Operating / Storage	0°C ~ +40°C / -5°C ~ +45°C (with < 20~80% RH)
Vibration / Shock	98 m/s <sup>2</sup> (10.0 G) / 490 m/s <sup>2</sup> (50.0 G)
Standard Compliance	CE (EN61326-1; 2006년; Class A)
Environments	RoHS / WEEE

## Key Features

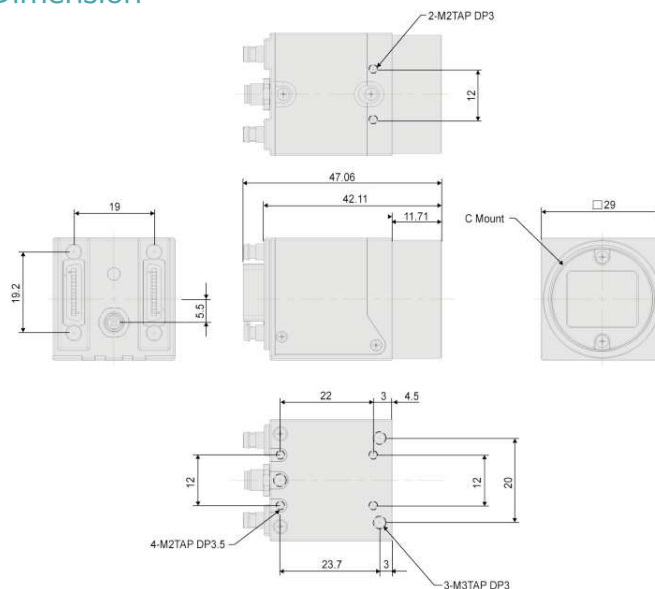
- Sony polarized CMOS Sensor
- Interface : CameraLink
- Resolution : 2464 x 2056
- Frame Rate : 163 fps
- Embedded Polarizing Algorithm
- Supporting PoCL

## Pin Map



Pin No.	Name	IN/ OUT	Description
1	DC VCC	IN	10.8V ~ 26.4V Input Range
2	DC VCC	IN	10.8V ~ 26.4V Input Range
3	DC GND	IN	-
4	DC GND	IN	-

## Dimension



## Example

### Images with Different Angle



0°



45°



90°



135°

### Images with Different format



Aop



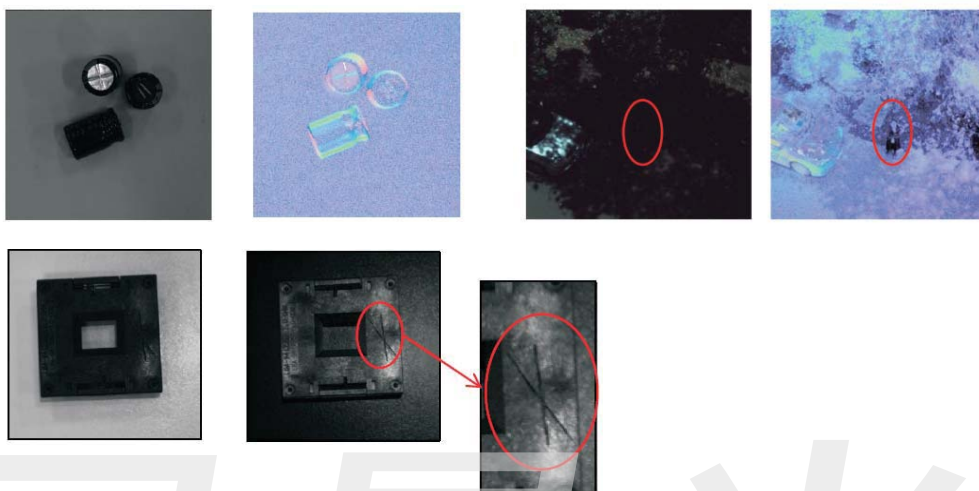
Dolp



Intensity

## Advantages & Application

### Improving Contrast



### Reduce Reflection



### Stress Inspection



### Scratch Inspection on transparent material

