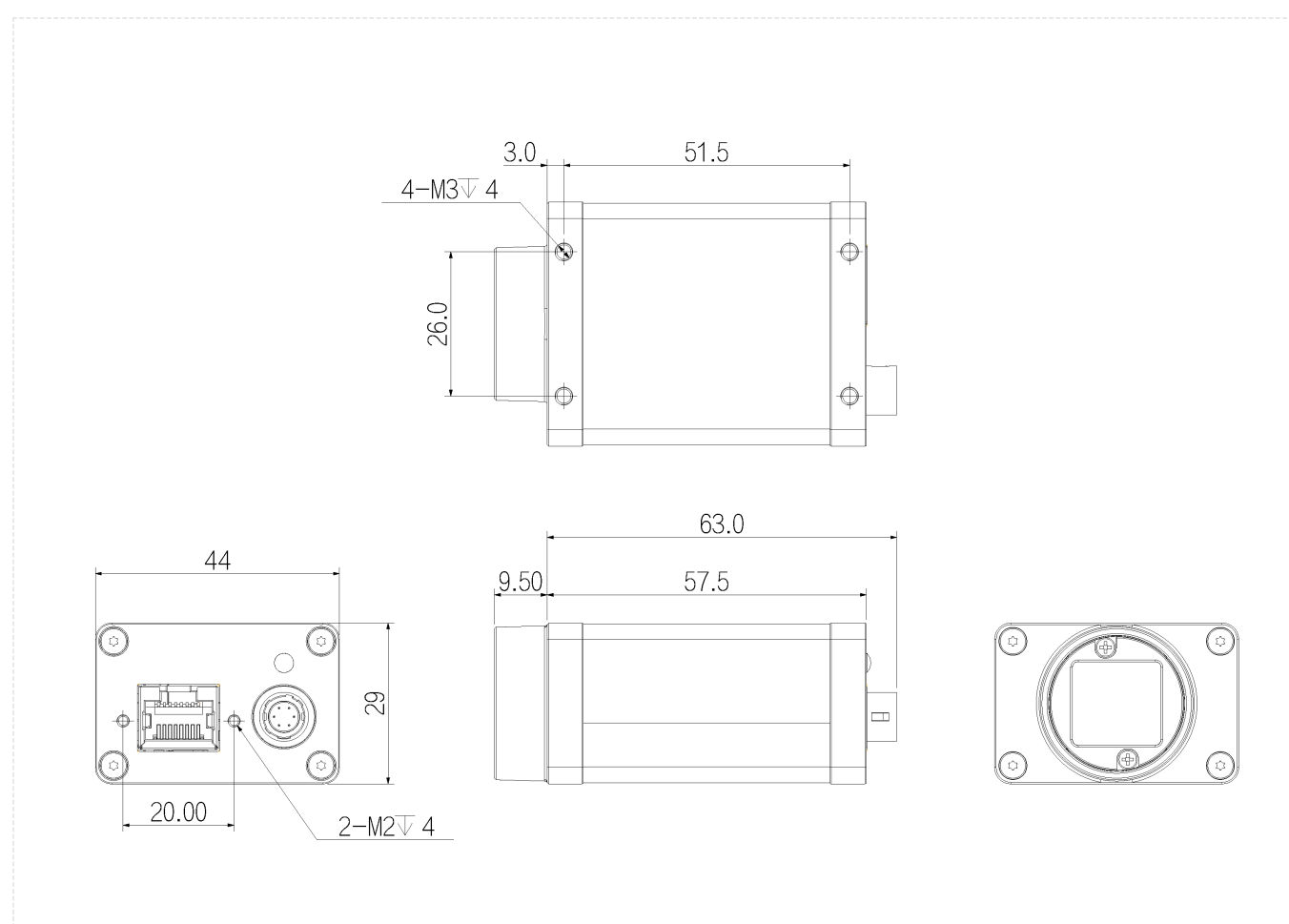# A Series

## A7A20CG9E

## / Features

- Gigabit Ethernet interface, providing 1Gbps bandwidth with a maximum transmission distance of 100m;
- 256MB on-board cache for data transmission or image resend;
- Support Software Trigger/Hardware Trigger/Free Run Mode;
- Support ISP functions including Sharpness/Denoising/Gamma/LUT/BlackLevel Correction/TargetBrightness/Contrast etc.;
- Color cameras support interpolation, white balance, color conversion matrix, chroma, saturation, etc.;
- Support multiple image data formats output/ROI/Mirror, etc.;
- Conform to GigE Vision V2.0 protocol and GenICam standard;
- Support PoE power supply, DC 9V~24V wide voltage power supply;
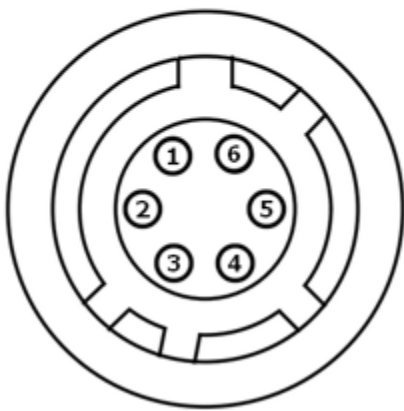- Conform to CE, FCC, RoHS;

## / Dimensions (mm)

## ▰ Specification

| Model | | A7A20CG9E |
|---|---|---|
| Basic | Sensor | IMX304 |
| | Image Sensor | 1.1''CMOS |
| | Shutter | Global |
| | Resolution | 4096 × 3000 |
| | Frame Rate | 9 fps |
| | Bit Depth | 12 |
| | Mono/Color | Color |
| | Pixel Size | 3.45 μm × 3.45 μm |
| Image | Pixel | 12.29MP |
| | S/N Ratio | >38dB |
| | Dynamic Range | >70dB |
| | Image Format | Mono8，BayerRG8/10/10Packed,BayerGB8/10/10Packed，YUV422Packed |
| | ROI | Support |
| | X Flip | Support |
| | Y Flip | Support |
| | Gain | 1~32 |
| | White Balance | Automatic white balance |
| | Gamma | From 0 to 4, support LUT |
| | Exposure Time | 48μS~1S |
| | Trigger Mode | Software Trigger/Hardware Trigger/Free Run Mode |
| | SPC | Support |
| Performance | User Setting | Support two sets of user-defined configurations |
| | Image Buffer | 256MB |
| Port | Port | GigE, PoE |
| | GPIO Interface | 1x 6 pin Hirose: 1x Opto-isolated input, 1x Opto-isolated output |
| | Lens Mount | C-mount |
| Power | Power Supply | PoE/ DC 9V~24V power supply via Hirose interface |
| | Power Consumption | 12V≈3.2W |
| Structure | Product Dimensions | 29mm*44mm*58mm (not including lens mount and rear case connector) |
| | Net Weight | 100 g |
| Environment | Storage Temperature | - 30℃~+80℃ |
| | Operating Temperature | - 30℃~+50℃ |

## Connector Pin-out

Definitions of camera 6-pin ports:

| Pin | Description | Features |
|-----|-------------|----------|
| 1 | - | +9VDC to 24VDC power supply |
| 2 | Line1 | Opto-isolated input |
| 3 | Line2 | GPIO (I/O can be configured for non-isolated software)[1] |
| 4 | Line0 | Opto-isolated output |
| 5 | - | Opto-isolated signal ground (ISO_GND) |
| 6 | - | Camera DC power ground and GPIO signal ground (GND) |

Definition of 6-pin power port

## Spectrogram



(Excludes lens characteristics and light source characteristics.)