Board-level Series

AB7300MU102E

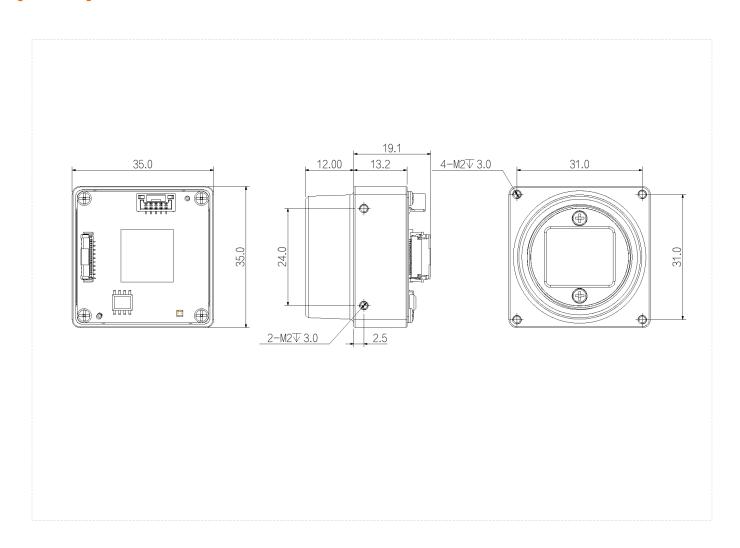


Features

RAYPLE

- USB3.0 interface, 5Gbps theoretical transfer bandwidth, power supply via USB interface;
- Compact design of 35mm*35mm*19mm;
- 128MB 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 etc.;
- Color cameras support interpolation, white balance, chroma, saturation, etc.;
- Support multiple image data formats output/ROI/Mirror, etc.;
- Compatible with USB3.0 Vision protocol and GenICam standard;
- Comform to CE, FCC, RoHS;

Dimensions (mm)



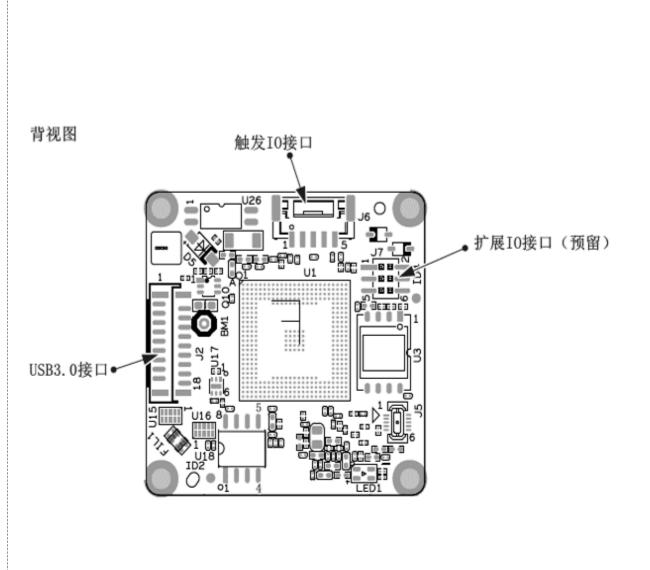


Specification

| Model | | AB7300MU102E | | |
|-------------------|-----------------------|--|--|--|
| | Sensor | IMX252 | | |
| | Image Sensor | 1/1.8"CMOS | | |
| | Shutter | Global | | |
| | Resolution | 2048 × 1536 | | |
| Basic | Frame Rate | 120fps | | |
| | Bit Depth | 10 | | |
| | Mono/Color | Mono | | |
| | Pixel Size | 3.45 μm × 3.45 μm | | |
| | Pixel | 3.2MP | | |
| | S/N Ratio | >38dB | | |
| | Dynamic Range | >70dB | | |
| | Image Format | Mono8/10/10Packed | | |
| | Binning | Support | | |
| | ROI | Support | | |
| Image | X Flip | Support | | |
| | Y Flip | Support | | |
| | Gain | 1~32 | | |
| | Gamma | Range from 0 to 4, support LUT | | |
| | Exposure Time | 16µS~1S | | |
| | Trigger Mode | Software Trigger/Hardware Trigger/Free Run Mode | | |
| | SPC | Support | | |
| | User Setting | Support two sets of user-defined configurations | | |
| Performance | Image Buffer | 64MB | | |
| | Port | USB 3.0 | | |
| Port | GPIO Interface | 5-core white plug interface: 1 optocoupler isolated input, 1 optocoupler isolated output, and 1 configurable input/output without optocoupler isolation | | |
| | Lens Mount | С | | |
| Power | Power Supply | 5.0V/900mA, powered through USB3.0 interface (compliant with USB3.0 interface specifications) or +5.0V/1A DC power supply auxiliary power supply (through auxiliary communication interface) | | |
| | Power Consumption | ≈2.8W | | |
| Chan a share a sa | Product Dimensions | 35mm × 35mm × 31mm (not including lens) | | |
| Structure | Net Weight | 50g | | |
| - | Storage Temperature | -30°C~+80°C | | |
| Environment | Operating Temperature | 0°C∼+40°C | | |



Connector Pin-out



触发IO口

接插件: 1.25mm间距立式针形1排5列连接器 (1.25T)

| | 1411 · 1.20111110162-2011/1/2111071XE1X HI (1.2017 | | | |
|----|--|---------------|-------|------------------|
| 编号 | 信号 | 功能 | 方向 | 备注 |
| 1 | GPIO | 双向可配置通用输入输出接口 | 输入\输出 | |
| 2 | GND | 信号地 | - | |
| 3 | OPT_GND | 光耦隔离地 | - | |
| 4 | OPT_OUT | 光耦隔离输出 | 输出 | 最大100mA灌电流(Sink) |
| 5 | OPT_IN | 光耦隔离输入 | 输入 | 最高26V输入电压 |

USB3.0接口

接插件: 0.5mm间距立式18芯翻盖式FPC连接器

| | 信号 | 功能 | 方向 | 备注 |
|----|-----------|-------------|----|------------|
| 1 | VBUS | USB总线电源 | - | EV =+000A |
| 2 | VBUS | USB总线电源 | - | 5V,最大900mA |
| 3 | GND | 电源地 | - | |
| 4 | GND | 电源地 | - | |
| 5 | USB2.0_D- | USB2.0数据负 | 双向 | |
| 6 | GND | 信号地 | - | |
| 7 | USB2.0_D+ | USB2.0数据正 | 双向 | |
| 8 | GND | 信号地 | _ | |
| 9 | NC | (空) | - | |
| 10 | GND | 信号地 | - | |
| 11 | USB3.0_TX | USB3.0发送数据负 | 输出 | |
| 12 | GND | 信号地 | - | |
| 13 | USB3.0_TX | USB3.0发送数据正 | 输出 | |
| 14 | GND | 信号地 | - | |
| 15 | USB3.0_RX | USB3.0接收数据负 | 输入 | |
| 16 | GND | 信号地 | - | |
| 17 | USB3.0_RX | USB3.0接收数据正 | 输入 | |
| 18 | GND | 信号地 | _ | |

扩展IO口(预留)

接插件: 1.27mm间距立式双排3列排母

| | 13C / IIII | | | | | |
|---|------------|----------|---------------|----|----------|--|
| ı | 编号 | 信号 | 功能 | 方向 | 备注 | |
| ı | 1 | +5V | 5V电源输出 | - | 最大100mA | |
| ı | 2 | GND | 电源地 | _ | | |
| ı | 3 | +3.3V | 3.3V电源输出 | _ | 最大100mA | |
| ı | 4 | GPIO2_IN | 扩展通用输入输出接口(输入 | 输入 | 3.3V逻辑电平 | |
| ı | 5 | GND | 信号地 | - | | |
| ı | 6 | GPIO2 OU | 扩展通用输入输出接口(输出 | 输出 | 3.3V逻辑电平 | |

备注:

- (1) 表中方向一栏都是针对USB3,0单板相机。
- (2) 图中接口连接线缆禁止热插拔。

Spectrogram



