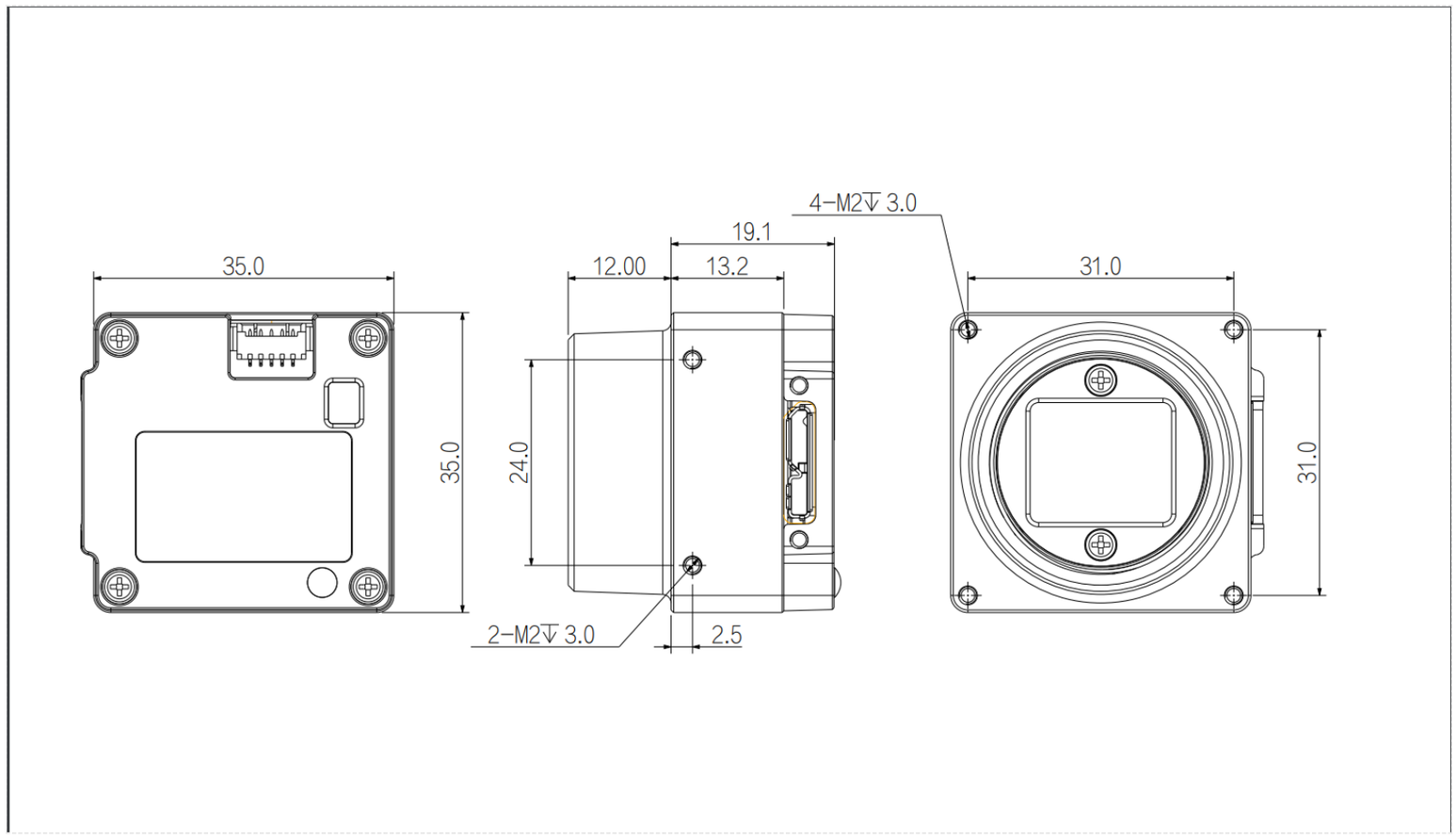
Board-level Series

AB7160CU000E

Features

- 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)



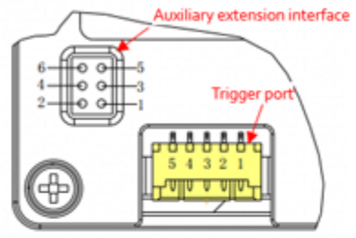
Specification

Model		AB7160CU000E
Basic	Sensor	IMX273
	Image Sensor	1/2.9"CMOS
	Shutter	Global
	Resolution	1440 × 1080
	Frame Rate	249 fps
	Bit Depth	12
	Mono/Color	Color
	Pixel Size	3.45 μm × 3.45 μm
Image	Pixel	3MP
	S/N Ratio	>38dB
	Dynamic Range	>70dB
	Image Format	BayerRG8/10/10Packed;BayerGB8/10/10Packed
	ROI	Support
	X Flip	Support
	Y Flip	Support
	Gain	1~32
	White Balance	Support
	Gamma	Range from 0 to 4, support LUT
	Exposure Time	16μS~1S
	Trigger Mode	Software Trigger/Hardware Trigger/Free Run Mode
	SPC	Support
Performance	User Setting	Support two sets of user-defined configurations
	Image Buffer	64MB
Port	Port	USB 3.0
	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	C
Power	Power Supply	5.0V/900mA, powered through USB3.0 interface (compliant with USB3.0 interface specifications)
	Power Consumption	≈2.8W
Structure	Product Dimensions	35 mm × 35 mm × 19 mm (not including lens mount and rear case connector)
	Net Weight	68 g
Environment	Storage Temperature	-30℃~+80℃
	Operating Temperature	-30℃~+50℃

Connector Pin-out

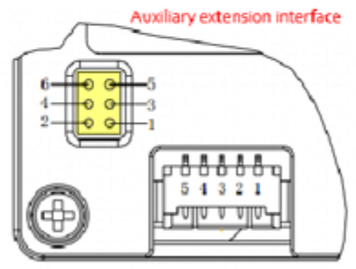
Definitions of signals:

Pin	Direction	Description	Features
1	I/O	Line2	GPIO (I/O can be configured for non-isolated software)
2		-	GPIO ground (GND)
3		-	Opto-isolated signal ground (ISO_GND)
4	O	Line0	Opto-isolated output
5	I	Line1	Opto-isolated input



Definitions of signals:

Pin	Direction	Description	Features
1	I	+5.0V	An external +5.0 V DC power supply provides auxiliary power for the camera
2		-	Power supply ground (GND)
3	O	+3.3V	The camera outputs +3.3 V DC power supply, which provides no more than 100 mA power supply for external devices
4	I/O	GPIO2	Reserved GPIO
5	I/O	GPIO3	Reserved GPIO
6		-	Signal ground (GND)



Spectrogram