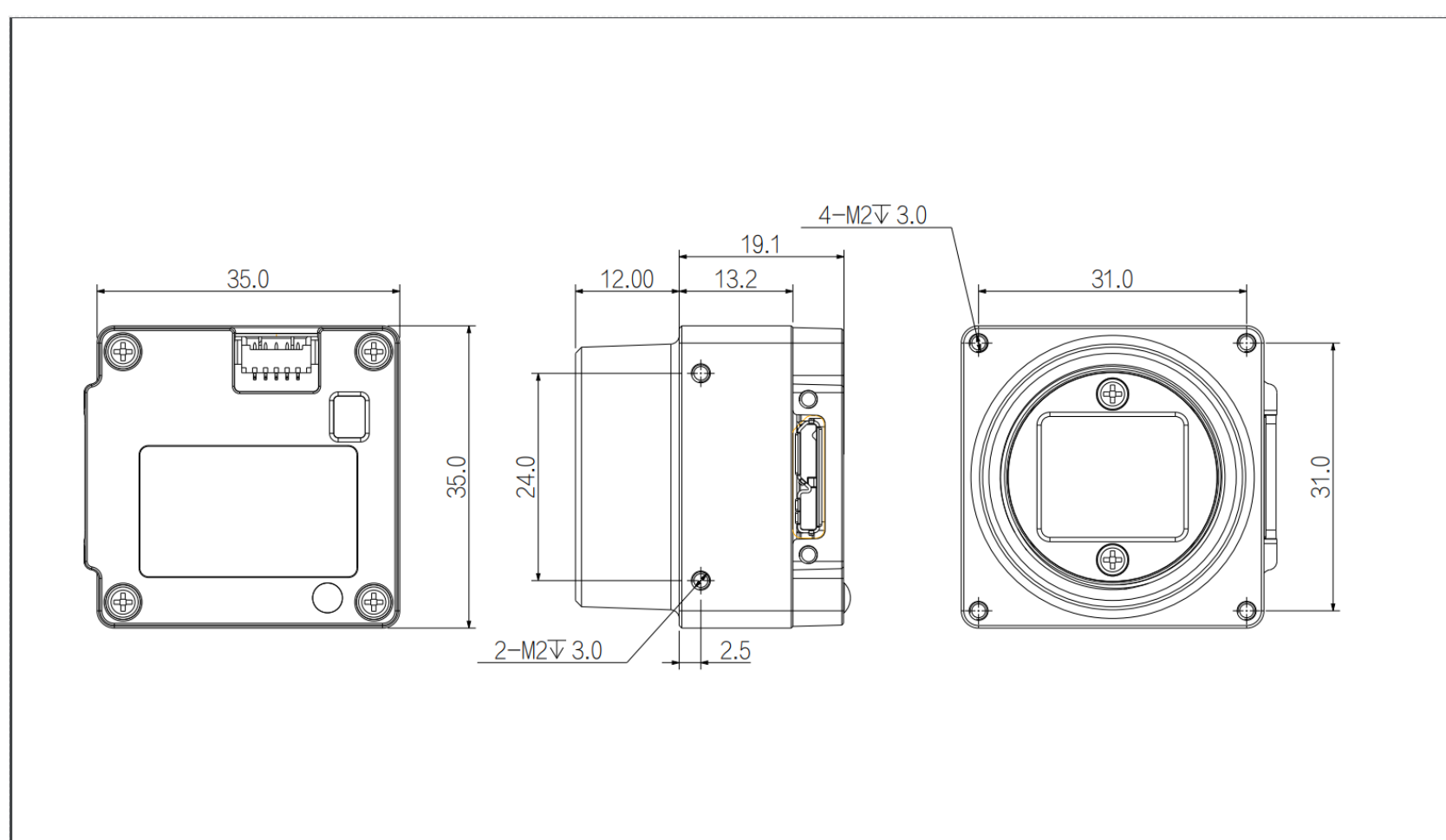# Board-level Series

AB3A20MU000E

/ Features

- 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 Gamma/LUT/BlackLevel Correction/TargetBrightness/Contrast etc.;
- Conform to USB3.0 Vision protocol and GenICam standard;
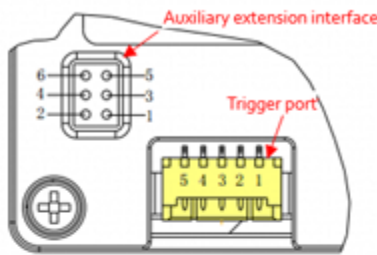- Conform to CE, FCC, RoHS;

/ Dimensions (mm)

Specification

Model		AB3A20MU000E
Basic	Sensor	IMX226
	Image Sensor	1/1.7"CMOS
	Shutter	Rolling
	Resolution	4000 × 3000
	Frame Rate	30 fps
	Bit Depth	10
	Mono/Color	Mono
	Pixel Size	1.85 μm × 1.85 μm
Image	Pixel	12MP
	S/N Ratio	>38dB
	Dynamic Range	66dB
	Image Format	Mono8/10/10Packed
	Binning	Support
	ROI	Support
	Gain	1~32
	Gamma	from 0 to 4, support LUT
	Exposure Time	55μS~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 image cache
Port	Port	USB3.0
	GPIO Interface	Standard 5 pin trigger connecter: 1x Opto-isolated input, 1x Opto-isolated output, 1 configurable input and output
	Lens Mount	C-mount
Power	Power Supply	power supply via USB interface (conform to USB3.0 interface specification)
	Power Consumption	≈2.8W
Structure	Product Dimensions	35mm×35mm×19mm
	Net Weight	46 g
Environment	Storage Temperature	- 30℃~+80℃
	Operating Temperature	- 30℃~+50℃

Connector Pin-out
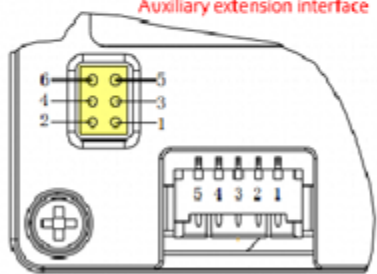
Definitions of signals:

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

(Excludes lens characteristics and light source characteristics)