

USB3.0 Industrial Area Scan Camera

Model

PMS208CCUA1C



HIGHLIGHTS



Compact 29 mm cube body, only 40 g



Ultra-low power consumption for stable operation



USB3.0 high-speed transmission with built-in frame buffer

USB3.0 Industrial Area Scan Camera



1. Performance Features

- Compact body, approximately 40 g, with industry-standard mounting holes.
- Complies with the USB3.0 high-speed communication protocol, with transfer rates up to 440 MByte/s.
- Built-in large-capacity frame buffer for stable and reliable real-time transmission.
- Ultra-low power consumption; typical working power is below 2 W.
- Supports third-party vision development based on USB3 Vision and GenICam.
- Compatible with HALCON, LabVIEW, OpenCV and other common vision software.
- Camera hardware graphics accelerator supports image preprocessing.
- Compact dimensions: 29 mm x 29 mm x 29 mm.



2. Specifications

Model	PMS208CCUA1C
Description	20 MP Color USB3.0 Industrial Area Scan Camera
Resolution	5480 x 3648
Minimum ROI	32 x 32; minimum step 8
Sensor Format	1 inch
Shutter Type	Rolling shutter
Pixel Size	2.4 μm
Maximum Frame Rate	22 FPS
Color / Mono	Color
Active Area	13.13 mm x 8.76 mm
SNR	37 dB
Sensitivity	0.462 V/Lux·s at 1/30 s, F5.6
Pixel Bit Depth	12 bit
Trigger Mode	Software trigger / Hardware trigger
Dynamic Range	71 dB
Spectral Response	390 nm - 650 nm
Exposure Time	12 μs to 5 s 63 ms 985 μs
Gain	1x - 16x; step 0.125x
Output Image Format	BGR24, RAW8, RAW16, MONO8, MONO16
Image Capture Format	RAW, BMP, JPEG, PNG

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ISP Image Processing

Hardware graphics accelerator for image preprocessing.
Output formats: BGR24, RAW8, RAW16, MONO8 and MONO16.
Image capture supports RAW, BMP, JPEG and PNG.

Electrical Characteristics

Data Interface	USB3.0; maximum transfer rate 440 MByte/s
I/O	Isolated trigger input, isolated flash output, isolated GPO
Power Supply	USB 5 V
Typical Power	2.0 W operating; 1.4 W standby

Mechanical & Environmental

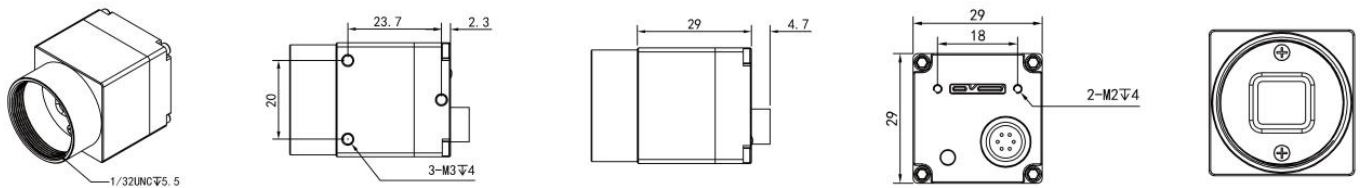
Lens Mount	C-Mount
Trigger Connector	6-pin circular trigger socket
Dimensions	29 mm x 29 mm x 29 mm
Weight	Approx. 40 g
IP Rating	IP30
Operating Temperature	-10°C to 50°C

Software & Protocols

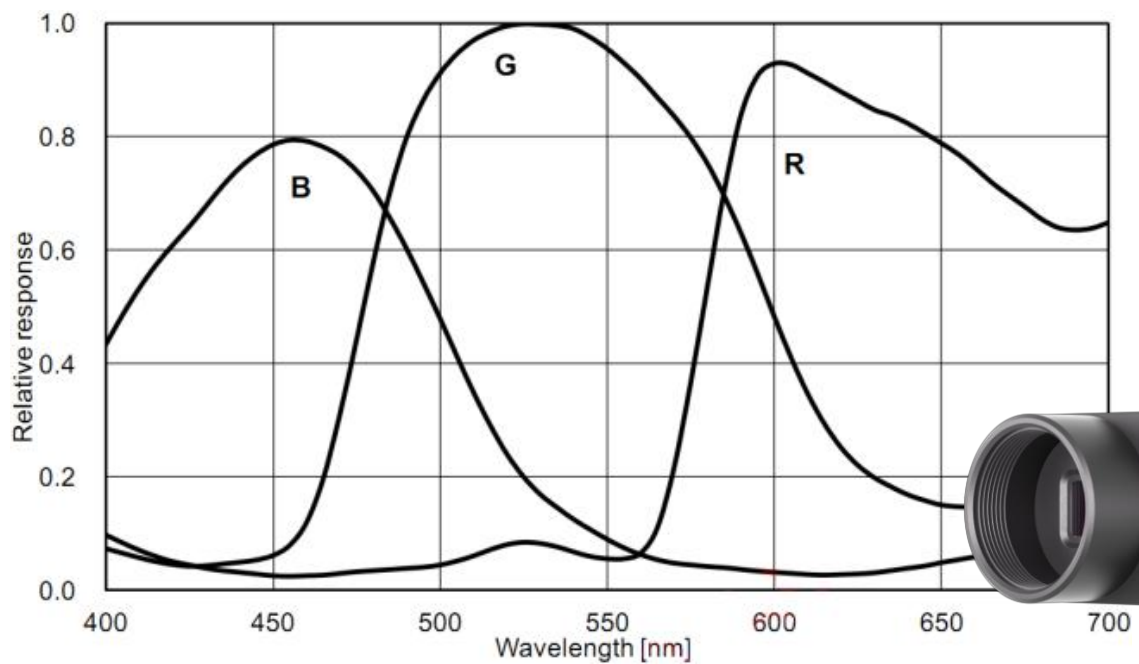
Standards	USB3 Vision, GenICam
Compatible Software	HALCON, LabVIEW, OpenCV
Certifications	CE, FCC, RoHS

3. Mechanical Dimensions

Unit: mm



4. Spectral Response



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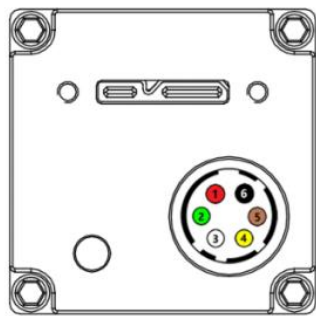
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I/O

5. Interface Definition

Pin	Wire Color	Definition	Line No.	Description	Isolation	Circuit	Input / Output Parameters
1	Red	GPO+	Line 3+	General-purpose output positive	Isolated output	Optocoupler	Current limit: 20 mA; polarized
6	Black	GPO-	Line 3-	General-purpose output negative	Isolated output	Optocoupler	Current limit: 20 mA; polarized
2	Green	TRIG+	Line 1+	Trigger input positive	Isolated input	Optocoupler	Low: 0-1 V; High: 5-24 V; polarized
3	White	TRIG-	Line 1-	Trigger input negative	Isolated input	Optocoupler	Low: 0-1 V; High: 5-24 V; polarized
4	Yellow	Flash_out+	Line 2+	Flash output positive	Isolated output	Optocoupler	Current limit: 20 mA; polarized
5	Brown	Flash_out-	Line 2-	Flash output negative	Isolated output	Optocoupler	Current limit: 20 mA; polarized
Shield	Transparent	Shield Wire	-	Connected to camera housing	-	-	Shield uses transparent heat-shrink tubing

Trigger Socket



- | | | |
|---|--------|------------|
| 1 | Red | GPO+ |
| 2 | Green | TRIG+ |
| 3 | White | TRIG- |
| 4 | Yellow | Flash_out+ |
| 5 | Brown | Flash_out- |
| 6 | Black | GPO- |

Shield: transparent wire connected to camera housing