Allied Vision

Manta
G-419

- CMOSIS/ams CMOS sensor
- PoE optional
- Angled-head and board level variants
- Video-iris lens control

基本描述

GigE camera with CMOSIS/ams CMV4000 CMOS sensor

Manta G-419 is a machine vision camera that incorporates the high quality Type 1 (16 mm diagonal) CMOSIS/ams CMV4000 CMOS sensor. At full resolution, this camera runs 28.6 frames per second. With a smaller region of interest, higher frame rates are possible. The Manta is one of Allied Vision's versatile GigE Vision cameras with a wide range of features. Particular highlights are the three look-up tables, sophisticated color correction capabilities, a robust metal housing, and many modular options. By default monochrome models ship with protection glass B 270 (ASG) and color models ship with an IRC Hoya C-5000 IR cut filter.

Benefits and features:

- Monochrome (G-419B) and color (G-419C) models
- GigE Vision interface with Power over Ethernet option
- Screw mount RJ45 Ethernet connector for secure operation in industrial environments
- Supports cable lengths up to 100 meters (CAT-5e or CAT-6)
- Trigger over Ethernet (ToE) Action Commands allow for a single cable solution to reduce system costs
- Comprehensive I/O functionality for simplified system integration
- Popular C-Mount lens mount
- Easy camera mounting via standard M3 threads on top and bottom of housing or optional tripod adapter
- Easy software integration with Allied Vision's Vimba SDK and compatibility to the most popular third party image-processing libraries.

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Options:

- Available with Power over Ethernet (PoE) compliant interface
- Available with CS-Mount or M12-Mount adapter
- Available with Protection glass B 270 (ASG), IRC type Jenofilt 217 (IR cut filter), IRC Hoya C-5000 (IR cut filter), IRP RG715 (IR pass filter), IRP RG830 (IR pass filter)
- Available with various angled-head housings or board level version
- Available with white medical design

See the Modular Concept for lens mount, housing variants, optical filters, case design, and other modular options. See the Customization and OEM Solutions page for additional options.

性能参数

Manta	G-419
接口	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional
分辨率	2048 (H) × 2048 (V)
传感器	CMOSIS/ams CMV4000
传感器类型	CMOS
传感器尺寸	Type 1
像元尺寸	5.5 μm × 5.5 μm
标准镜头接口	C-Mount
最大满帧帧率	28.6 fps
ADC	12 bit
缓存 (RAM)	128 MByte
非易失性内存 (Flash)	1024 KByte (for selected models only)
	输出
Bit位数	8-12 bit
黑白像素格式	Mono8, Mono12, Mono12Packed
YUV彩色像素格式	YUV411Packed, YUV422Packed, YUV444Packed
RGB彩色像素格式	RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed
原始像素格式	BayerGB8, BayerGB12, BayerGB12Packed
	通用输入输出口(GPIOs)
光耦 I/Os	2 inputs, 2 outputs
RS232	1
	工作条件/尺寸
工作温度	+5 °C to +45 °C ambient (without condensation)
电源要求 (DC)	8 to 30 VDC; PoE

Manta	G-419
功耗	2.7 W at 12 VDC; 3.1 W PoE
重量	190 g; 200 g (PoE)
尺寸(L × W × H in mm)	86.4 × 44 × 29 mm (incl. connectors)
符合规范	CE: 2014/30/EU (EMC), 2011/65/EU, including amendment 2015/863/EU (RoHS); FCC Class B; CAN ICES-003

CMOSIS/ams CMV4000 absolute QE
All measurements were done without protection glass or IR cut filter.
With protection glass or filters, quantum efficiency (QE) decreases by approximately 10%.
The uncertainty in measurement of the QE is +/- 10.25%.
The values are typical and are subject to minor variations.
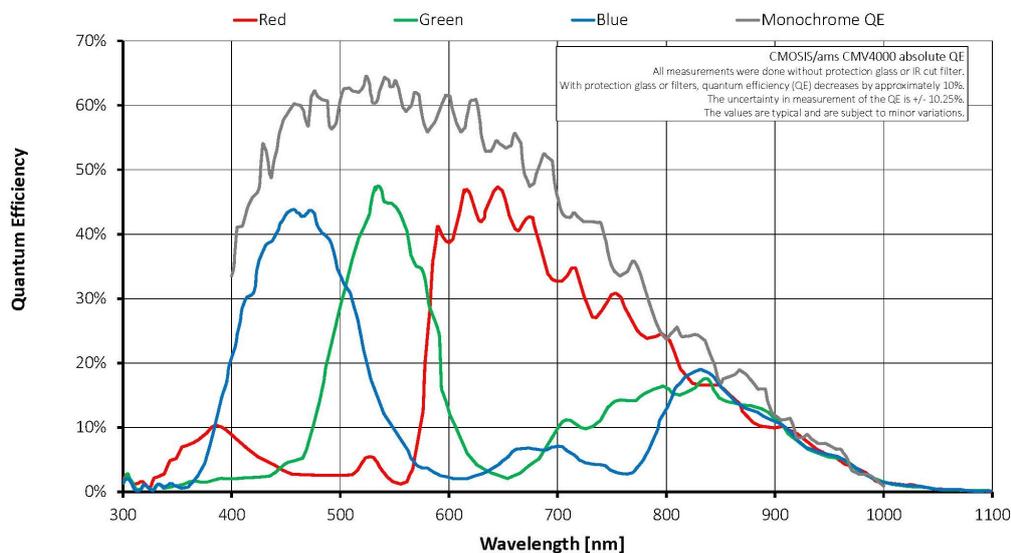
特性

Image optimization features:

- Auto gain (manual gain control: 0 to 26 dB; 1 dB increments)
- Auto exposure (34 µs to 126 s; 1 µs increments)
- Auto white balance (G-419C only)
- Black level (offset)
- Color correction, hue, saturation (G-419C only)
- Decimation
- Gamma correction
- Three look-up tables (LUTs)
- Piecewise Linear HDR mode
- Pixel defect masking
- Region of interest (ROI), separate ROI for auto features

Camera control features:

- Auto-iris (video type)
- Event channel
- Image chunk data
- IEEE 1588 Precision Time Protocol
- Storable user sets
- StreamBytesPerSecond (easy bandwidth control)
- Stream hold
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO
- Temperature monitoring (main board)
- Trigger over Ethernet (ToE) Action Commands
- Non-volatile memory 1024 KByte (for selected models only)

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外形尺寸

M3 - 3▽ (4x)

62.3

9

26

13.4 +0.3 0

44

29

C-Mount

71

Ø27.5

9.1 +0.3 0

9.5

14.5

M2 - 4.5▽ (4x)

17.6

19.3

20

M3 - 2▽ (2x)

M3 - 3▽ (2x)

80

86.3
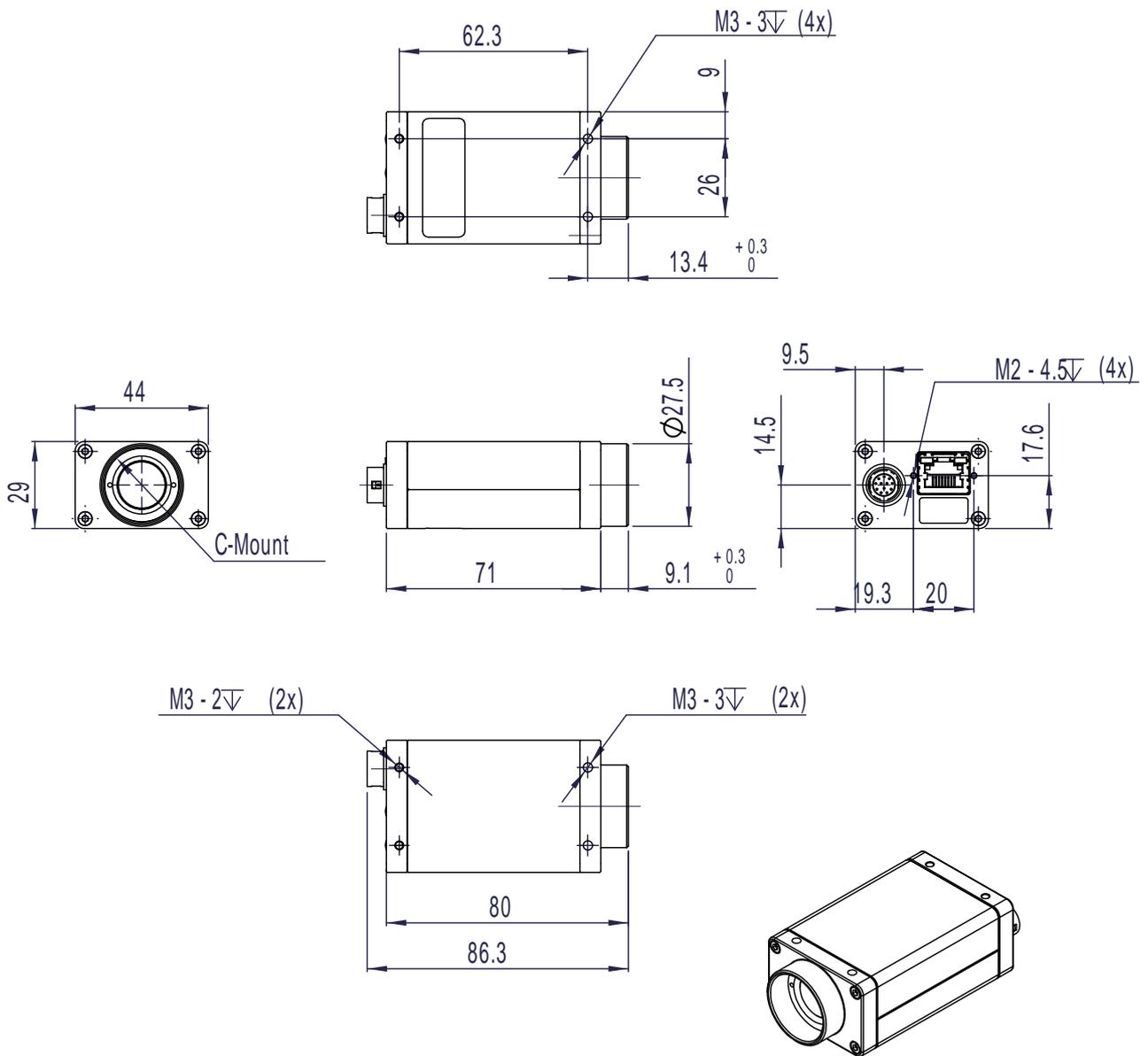
应用场景

Manta G-419 is an industrial GigE camera with a 1'' CMOSIS/ams CMV4000 sensor. At full resolution, it runs 28 fps.

- Multimedia and entertainment
- Machine vision
- Security and surveillance
- Metrology and inspection systems
- Industrial image processing