

5000 series

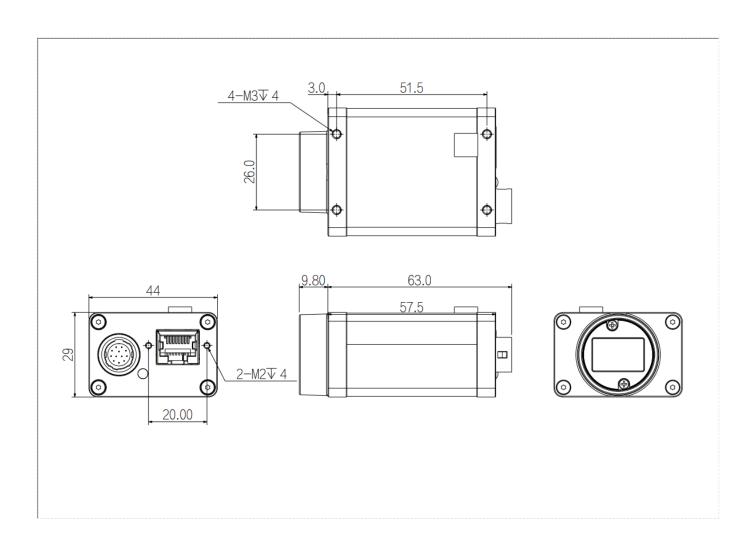
L5027MG400E



Features

- The resolution is 2K, the pixel size is 7µm, and the maximum line frequency can reach 59K;
- High dynamic range, good signal-to-noise ratio, and excellent image quality;
- Support a variety of image data format output;
- Support 2TDI, 4TDI;
- Support multiple ROI, FPN correction;
- Support Gamma, LUT, automatic black level and other ISP functions;
- Support software trigger/hardware trigger/free run and other trigger modes;
- Compatible with GigE Vision V2.0 protocol and GenICam standard;
- Support DC12-24V wide voltage power supply;

Dimensions (mm)





Specification

Basic Sensor CMOS	Model		L5027MG400E
Shutter Global Resolution 2048 × 4 Line Rate 59 kHz(After compression the line frequency is 66k) Bit Depth 12 Mono/Color Mono Pixel Size 7 µm × 7 µm Pixel Size 7 µm × 7 µm S/N Ratio 39.6 db Dynamic Range 65.5 db Image Format Mono8/10/12/10P/12P Binning Support ROI Support ROI Support Gain 1-32 Gamma From 0 to 4 , support LUT Exposure Time 8 µS~100 mS Trigger Mode Software Trigger/Hardware Trigger/Free Run Mode FPN Support TOI Stages single_line , 2TDI , 4TDI Tour Stages Support Support Support Tour Stages Support Tour Stages Support Support Support Tour Stages Support Support Support Support Support Support Support Support Support Supp	Basic	Sensor	2K
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Line Rate 59 kHz(After compression the line frequency is 66k.)		Shutter	Global
Line Rate 59 kHz/After compression the line frequency is 66k Bit Depth 12 Mono/Color Mono Pixel Size 7 µm × 7 µm Pixel 2048×4 5/N Ratio 39.6 db Dynamic Range 65.5 db Image Format Mono8/10/12/10P/12P Binning Support ROI Support ROI Support Gain 1-32 Gamma From 0 to 4 , support LUT Exposure Time 8 µS-100 mS Trigger Mode Software Trigger/Hardware Trigger/Free Run Mode FPN Support TDI Stages Single, line , 2TDI , 4TDI Performance Port Gig Port Gig Port Gig CHOBUNT Gale 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended inputs, 1 GPIO configurable input or output Lens Mount C-Mount		Resolution	2048 × 4
Mono/Color Mono		Line Rate	59 kHz(After compression the line frequency is 66k)
Pixel Size 7 μm × 7 μm Pixel 2048×4 S/N Ratio 39.6 db Dynamic Range 65.5 db Image Format Mono8/10/12/10P/12P Binning Support ROI Support Gain 1~32 Gamma From 0 to 4 , support LUT Exposure Time 8 μS~100 mS Trigger Mode Software Trigger/Hardware Trigger/Free Run Mode FPN Support TDI Stages Single_line , 2TDI , 4TDI Performance Performance User Setting Support two sets of user-defined configurations Image Buffer 64MB Image Cache , 64M Data Cache Port GigE GPIO Interface 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output		Bit Depth	12
Pixel 2048×4 S/N Ratio 39.6 db Dynamic Range 65.5 db Image Format Mono8/10/12/10P/12P Binning Support ROI Support X Flip Support Gain 1~32 Gamma From 0 to 4 , support LUT Exposure Time 8 µS~100 mS Trigger Mode Software Trigger/Hardware Trigger/Free Run Mode FPN Support TDI Stages Single_line , 2TDI , 4TDI Were Setting Support two sets of user-defined configurations Image Buffer 64MB Image Cache , 64M Data Cache Port GigE GPIO Interface Lens Mount Lens Mount C-Mount		Mono/Color	Mono
S/N Ratio 39.6 db		Pixel Size	7 μm × 7 μm
Image 65.5 db Image Format Mono8/10/12/10P/12P Binning Support ROI Support Gain 1~32 Gamma From 0 to 4 , support LUT Exposure Time 8 μS~100 mS Trigger Mode Software Trigger/Hardware Trigger/Free Run Mode FPN Support TDI Stages single_line , 2TDI , 4TDI Yerformance Performance User Setting Support two sets of user-defined configurations Image Buffer 64MB Image Cache , 64M Data Cache Port GigE Port GigE GPIO Interface 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output		Pixel	2048×4
Image Format Mono8/10/12/10P/12P Binning Support ROI Support X Flip Support Gain 1~32 Gamma From 0 to 4 , support LUT Exposure Time 8 µS~100 mS Trigger Mode Software Trigger/Hardware Trigger/Free Run Mode FPN Support TDI Stages single_line , 2TDI , 4TDI Performance User Setting Support two sets of user-defined configurations Image Buffer 64MB Image Cache , 64M Data Cache Port GigE Port GigE GPIO Interface 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended input, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output Lens Mount C-Mount		S/N Ratio	39.6 db
Image Binning Support ROI Support X Flip Support Gain 1~32 Gamma From 0 to 4 , support LUT Exposure Time 8 μS~100 mS Trigger Mode Software Trigger/Hardware Trigger/Free Run Mode FPN Support TDI Stages single_line , 2TDI , 4TDI Performance User Setting Support two sets of user-defined configurations Image Buffer 64MB Image Cache , 64M Data Cache Fort GigE GPIO Interface 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output Lens Mount C-Mount		Dynamic Range	65.5 db
Image ROI Support X Flip Support Gain 1~32 Gamma From 0 to 4 , support LUT Exposure Time 8 μS~100 mS Trigger Mode Software Trigger/Hardware Trigger/Free Run Mode FPN Support TDI Stages single_line , 2TDI , 4TDI User Setting Support two sets of user-defined configurations Image Buffer 64MB Image Cache , 64M Data Cache Port GigE Port GigE GPIO Interface 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output Lens Mount C-Mount		Image Format	Mono8/10/12/10P/12P
Image X Flip Support Gain 1~32 Gamma From 0 to 4 , support LUT Exposure Time 8 µS~100 mS Trigger Mode Software Trigger/Hardware Trigger/Free Run Mode FPN Support TDI Stages single_line , 2TDI , 4TDI Performance User Setting Support two sets of user-defined configurations Image Buffer 64MB Image Cache , 64M Data Cache Port GigE GPIO Interface 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output		Binning	Support
Gain 1~32 Gamma From 0 to 4 , support LUT Exposure Time 8 μS~100 mS Trigger Mode Software Trigger/Hardware Trigger/Free Run Mode FPN Support TDI Stages single_line , 2TDI , 4TDI Performance User Setting Support two sets of user-defined configurations Image Buffer 64MB Image Cache , 64M Data Cache Port GigE GPIO Interface 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output Lens Mount C-Mount		ROI	Support
Gamma From 0 to 4 , support LUT Exposure Time 8 μS~100 mS Trigger Mode Software Trigger/Hardware Trigger/Free Run Mode FPN Support TDI Stages single_line , 2TDI , 4TDI Support two sets of user-defined configurations Image Buffer 64MB Image Cache , 64M Data Cache Port GigE 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output Lens Mount C-Mount	Image	X Flip	Support
Exposure Time 8 μS~100 mS Trigger Mode Software Trigger/Hardware Trigger/Free Run Mode FPN Support TDI Stages single_line , 2TDI , 4TDI Performance User Setting Support two sets of user-defined configurations Image Buffer 64MB Image Cache , 64M Data Cache Port GigE Port GigE 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output Lens Mount C-Mount		Gain	1~32
Trigger Mode Software Trigger/Free Run Mode FPN Support TDI Stages single_line , 2TDI , 4TDI User Setting Support two sets of user-defined configurations Image Buffer 64MB Image Cache , 64M Data Cache Port GigE 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output Lens Mount C-Mount		Gamma	From 0 to 4, support LUT
FPN Support TDI Stages single_line , 2TDI , 4TDI Performance User Setting Support two sets of user-defined configurations Image Buffer 64MB Image Cache , 64M Data Cache Port GigE Port GigE 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output Lens Mount C-Mount		Exposure Time	8 μS~100 mS
TDI Stages single_line , 2TDI , 4TDI Performance User Setting Support two sets of user-defined configurations Image Buffer 64MB Image Cache , 64M Data Cache Port GigE Port GPIO Interface 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output Lens Mount C-Mount		Trigger Mode	Software Trigger/Hardware Trigger/Free Run Mode
Performance User Setting Support two sets of user-defined configurations Image Buffer 64MB Image Cache , 64M Data Cache Port GigE 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output Lens Mount C-Mount		FPN	Support
Performance Image Buffer 64MB Image Cache , 64M Data Cache Port GigE 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output Lens Mount C-Mount		TDI Stages	single_line , 2TDI , 4TDI
Port GigE Port GigE 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output Lens Mount C-Mount	Performance	User Setting	Support two sets of user-defined configurations
Port GPIO Interface 12-pin Hirose interface for external power supply and external triggering; 2 differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output Lens Mount C-Mount		Image Buffer	64MB Image Cache , 64M Data Cache
Port GPIO Interface differential/single-ended inputs, 1 differential configurable input or output, 1 high-speed optocoupler single-ended input, 1 GPIO configurable input or output Lens Mount C-Mount	Port	Port	GigE
		GPIO Interface	differential/single-ended inputs, 1 differential configurable input or output, 1
Power Supply DC12-24V power supply		Lens Mount	C-Mount
	Da	Power Supply	DC12-24V power supply
Power Consumption 4.6 W	rower	Power Consumption	4.6 W
Product Dimensions 29 mm × 44 mm × 57.5 mm (Not including rear case connector)	Structure	Product Dimensions	29 mm × 44 mm × 57.5 mm (Not including rear case connector)
Net Weight 100 g		Net Weight	100 g
Storage Temperature - 30°C~+80°C	Environment	Storage Temperature	- 30°C~+80°C
Environment Operating Temperature - 30°C~+50°C	Environment	Operating Temperature	- 30°C~+50°C



Connector Pin-out

Pin	Description	Features	
1	Power GND	Power ground	Port definitions of 12-pin signals
2	Camera Power	Power Supply	
3	IN Line1+	Input Line1+	
4	IN Line1-	Input Line1-	
5	Signal GND	Signal ground	
6	IN Line2+	Input Line2+	(((((((((((((((((((
7	IN Line2-	Input Line2-	
8	IN Line4	Bidirectional GPIO Line4	
9	IN/OUT Line3+	Configurable input/output Line3+	
10	IN/OUT Line3-	Configurable input/output Line3-	
11	OPT_IN Line5	Opto-isolated input Line5	
12	OPT GND	Opto-isolated ground point	

Spectrogram

