

GS12542A 型微光 CMOS 成像组件

描述 Description

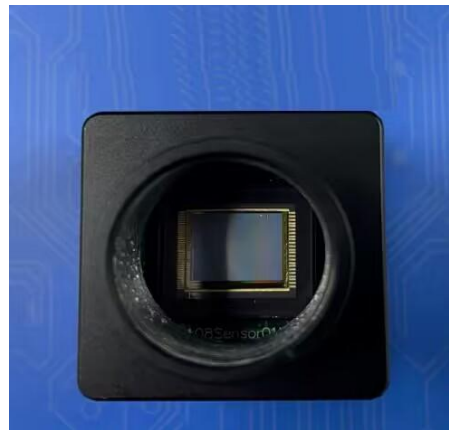
GS12542A 型微光 CMOS 成像组件采用低噪声、低照度、卷帘快门高清 CMOS 图像传感器设计出国产化高清黑白微光数字相机，该模组具有自动曝光、疵点补偿、3D 降噪、图像增强、近红外响应灵敏度高、开窗输出、透雾等特点，最低照度可达 6.5×10^{-4} Lux。

特点 Specifications

- 近红外增强
- 低噪声
- 全高清
- 微光夜视
- 透雾

应用 Applications

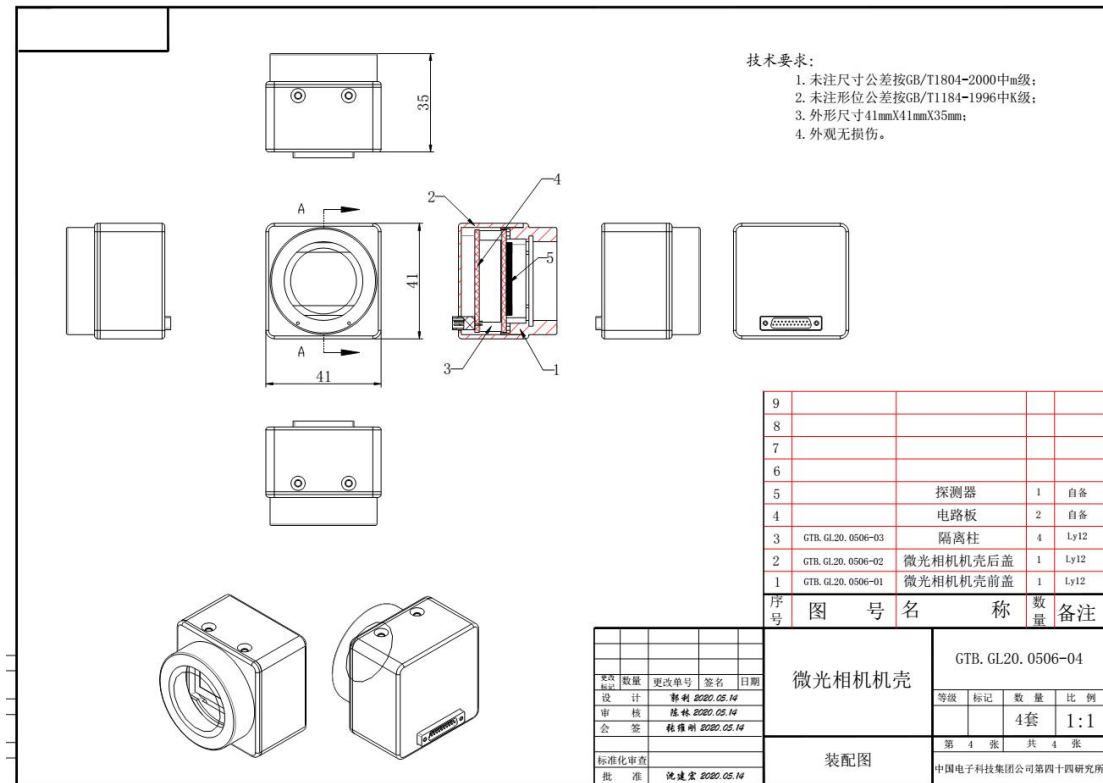
- 车载观瞄
- 机器视觉
- 安防监控
- 跟踪识别



性能参数 Characteristics

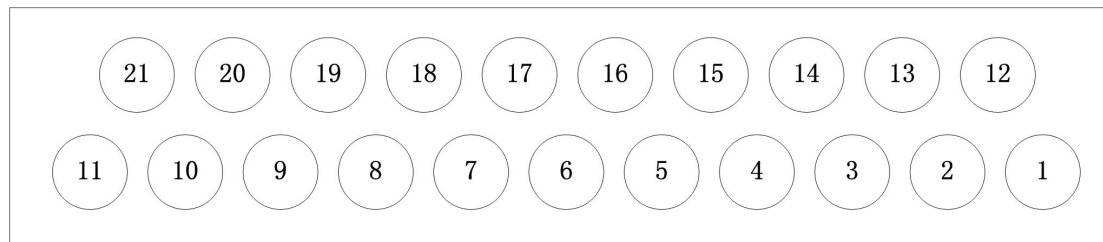
性能指标 Parameter	参数 Value
传感器 Sensor	9.7um×9.7um, 1 英寸 CMOS
分辨率 Resolution	1280(H) x 1024(V)
帧频 Frame rate	30Hz
动态范围 Dynamic Range	≥80dB (HDR) ≥68dB (非 HDR)
疵点校正 Defect Pixel Correction	Yes
快门方式 Electronic Shutter	Rolling Shutter
增益 Gain	0-24dB
输出接口 Video Output	Camera Link
单色/彩色 Monochrome / Color	Monochrome
输出时钟速率 Output Clock Speed	50MHz
最低照度 Min Illumination	6.5×10^{-4} Lux
输入电压 Power Supply	4 - 6V
功率损耗 Power Consumption	≤2W
工作温度 Operating Temperature	-55℃ - +70℃
传感器位置 Sensor Installation Position	结构几何中心
可靠性 Reliability	随机振动、冲击

机械尺寸 Dimensional outlines



外形尺寸 The package

管脚定义 Definition of pins



管脚分布 Interface distribution

接口	信号说明	信号名称	接口	信号说明	信号名称
21	Cameralink 时钟负	CL_CLK-	20	Cameralink 时钟正	CL_CLK+
19	Cameralink TX3 负	CL_TX3-	18	Cameralink TX3 正	CL_TX3+
17	Cameralink TX2 负	CL_TX2-	16	Cameralink TX2 正	CL_TX2+
15	Cameralink TX1 负	CL_TX1-	14	Cameralink TX1 正	CL_TX1+
13	Cameralink TX0 负	CL_TX0-	12	Cameralink TX0 正	CL_TX0+
11	RS422 发送信号负	DI-	10	RS422 发送信号正	DI+
9	RS422 接收信号负	RO-	8	RS422 接收信号正	RO+
7	信号地	GND	6	保留信号	保留



5	保留信号	保留	4	保留信号	保留
3	保留信号	保留	2	电源地	GND
1	电源输入+5V	VCC_IN			

管脚定义 Definition of pins

联系我们 About us

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GS12542A CMOS imaging component

Description

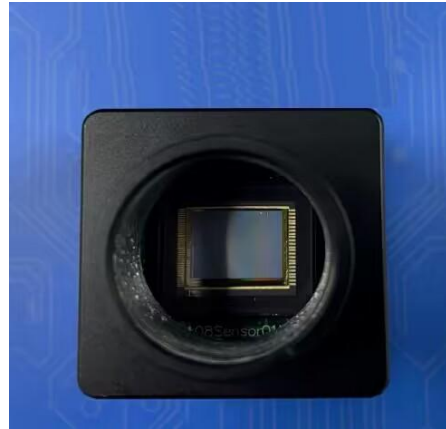
GS12542A low-light CMOS imaging component uses low-noise, high-dynamic range, rolling shutter, high-definition CMOS image sensor to form a high-definition mono low-light digital camera. The component has the features of automatic exposure, defect pixel correction, 3D noise reduction, image enhancement, high near-infrared sensitivity, windowing output, fog removal, and its minimum illumination can reach 6.5×10^{-4} Lux.

Specifications

- Near-Infrared enhancement
- Low noise
- High definition
- Low light
- Fogremoval

Applications

- Vehicle Observation and Aiming System
- Machine Vision
- Security Monitoring System
- Tracking and Identification

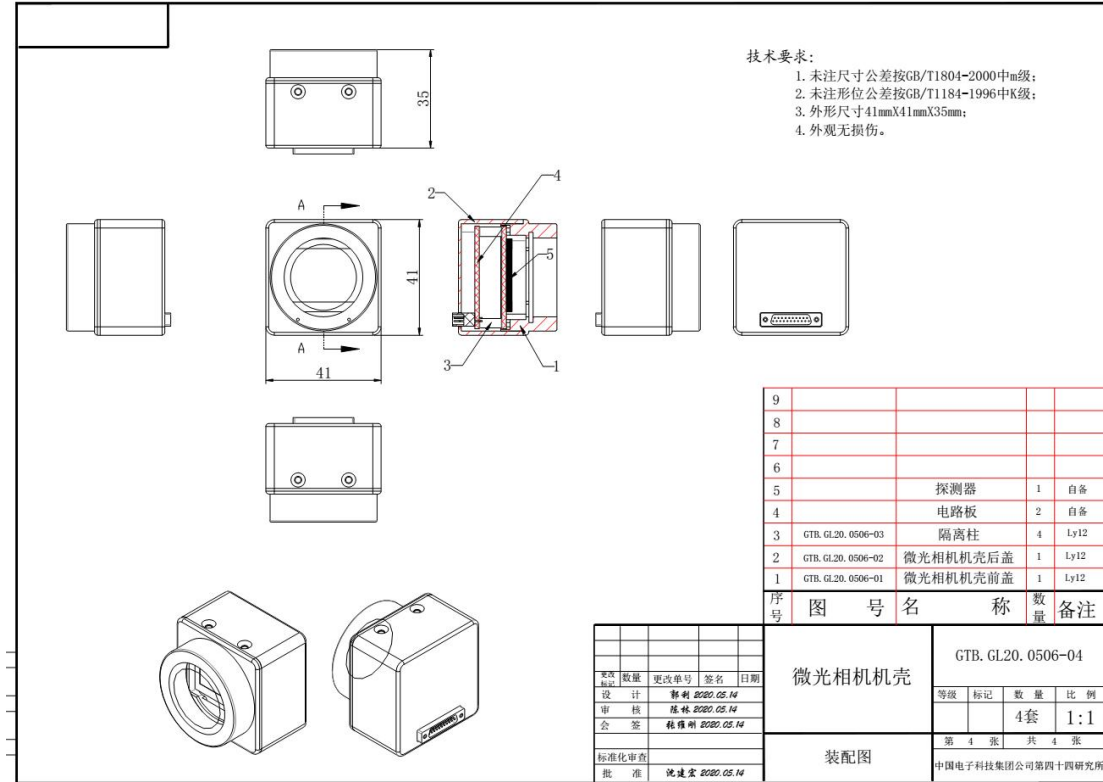


Characteristics

Parameter	Value
Sensor	9.7um×9.7um, CMOS
Resolution	1280(H) x 1024(V)
Frame rate	30Hz
Dynamic Range	≥80dB (HDR) ≥68dB (non-HDR)
Defect Pixel Correction	Yes
Electronic Shutter	Rolling Shutter
Gain	0-24dB
Output Interface	CameraLink
Monochrome / Color	Monochrome
Output Clock Speed	50MHz
Min Illumination	6.5×10^{-4} Lux
Power Supply	4 - 6V
Power Consumption	≤2W

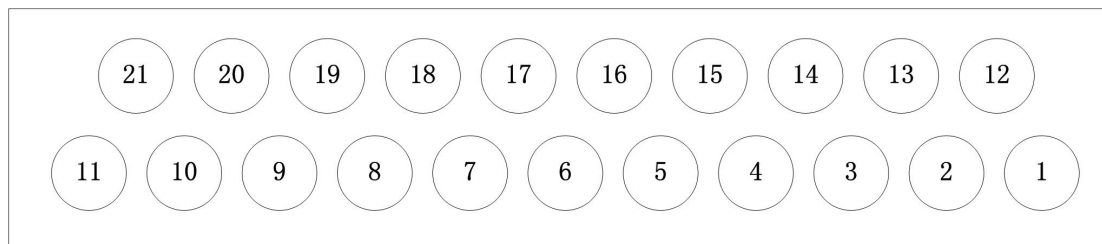
Operating Temperature	-55℃ - +70℃
Sensor Installation Position	Geometric center of the structure
Reliability	Random vibration, impulse

Dimensional outlines



The package

Definition of pins



Interface distribution(N means negative, P means positive)

Interface	Description	Name	Interface	Description	Name
21	Cameralink CLK N*	CL_CLK-	20	Cameralink CLK P	CL_CLK+
19	Cameralink TX3 N	CL_TX3-	18	Cameralink TX3 P	CL_TX3+
17	Cameralink TX2 N	CL_TX2-	16	Cameralink TX2 P	CL_TX2+
15	Cameralink TX1 N	CL_TX1-	14	Cameralink TX1 P	CL_TX1+
13	Cameralink TX0 N	CL_TX0-	12	Cameralink TX0 P	CL_TX0+
11	RS422 TX N	DI-	10	RS422 TX P	DI+
9	RS422 RX N	RO-	8	RS422 RX P	RO+



7	Signal Ground	GND	6	Reserved	Reserved
5	Reserved	Reserved	4	Reserved	Reserved
3	Reserved	Reserved	2	Power Ground	GND
1	Power Supply +5V	VCC_IN			

Definition of pins

About us

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