

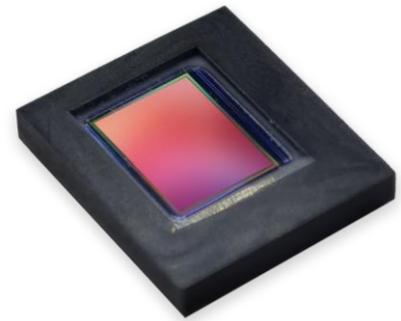
# MAT130

## MetaSilicon MAT Series CMOS Image Sensor For Automotive Applications

# CMOS IMAGE SENSOR

MAT130是一款面向车载视觉应用的具备高动态范围、高帧率特点的车规级CMOS图像传感器产品。产品同时还具备片上ISP二合一以及LED闪烁抑制功能，能够为包括360°环视、倒车影像、盲点检测等应用提供高质量的影像支持。

MAT130采用BSI工艺，遵循AEC-Q100 Grade 2 及 ISO 26262 ASIL-B功能安全标准设计，在元视芯自研的优化LOFIC技术及MTHDR®技术支持下，能够实现120dB的高动态范围。此外，MAT130能够输出30fps@1280 × 960的高帧率视频影像。产品支持YUV422格式输出，提供iBGA及COB两种封装形式。



MAT Series: MAT130

### Features

- ✔ 符合AEC-Q100 Grade 2
- ✔ 符合ISO 26262 功能安全 ASIL-B
- ✔ 车规级 RISC-V MCU (ASIL-B)
- ✔ 120dB高动态范围
- ✔ 30fps @1280 × 960高帧率影像输出
- ✔ 片上ISP二合一，内置图像处理算法
- ✔ 具备LFM (LED闪烁抑制) 功能
- ✔ 支持外部帧同步控制
- ✔ 高灵敏度

### Applications

- ✔ 车载360°环视应用
- ✔ 车载倒车影像应用
- ✔ 汽车盲点检测应用

Item	Parameters
Resolution	1.3MP
Process	BSI
Pixel Size	3.0μm × 3.0μm
Pixel Array	1280H × 960V
Optical Format	1/3.7 inch
Max Frame Rate	30fps @1280 × 960
Max S/N Ratio	48.5dB
Output Format	YUV422
Output Interface	DVP: Max 96MHz 30fps CSI-2 MIPI: 792Mbps / lane @2lane
CRA	15°
Dynamic Range	120dB
Operation Temperature	-40°C ~ +105°C
Power Supply	Analog: 2.8V @AVDD Digital: 1.2V @DVDD IO: 1.8V @DOVDD
Package	iBGA / COB

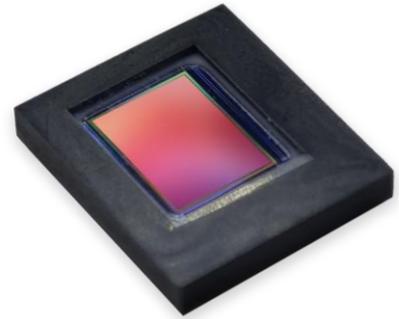
# MAT130

## MetaSilicon MAT Series CMOS Image Sensor For Automotive Applications

MAT130 is an automotive grade CIS with high dynamic range and high frame rate for automotive vision applications. The product also has on-chip ISP and LED flicker suppression functions, which can provide high-quality image support for applications including 360° surround view, reversing imaging, blind spot detection and other applications.

MAT130 uses BSI process and is designed follow AEC-Q100 Grade 2 and ISO 26262 ASIL-B functional safety standards. With the support of MetaSilicon's self-developed optimized LOFIC technology and MTHDR® technology, it can achieve a high dynamic range of 120dB. In addition, MAT130 can output high frame rate video images at 30fps @1280×960. The product supports YUV422 format output and provides two packaging forms: iBGA and COB.

# CMOS IMAGE SENSOR



MAT Series: MAT130

### Features

- AEC-Q100 Grade 2
- ISO 26262 ASIL-B
- Automotive grade RISC-V MCU (ASIL-B)
- 120dB high dynamic range
- 30fps @1280×960 high frame rate video output
- On-chip ISP two-in-one, built-in image processing algorithm
- LED flicker suppression
- High sensitivity

### Applications

- 360° surround view
- Reversing imaging
- Blind spot detection

Item	Parameters
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