

MAT330

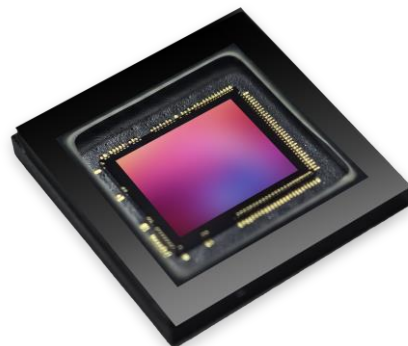
MetaSilicon MAT Series CMOS Image Sensor For Automotive Applications

MAT330 is an automotive grade CMOS image sensor product with ultra-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 panoramic view, ADAS surround view, automatic parking, CMS and other applications.

MAT330 adopts 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 an ultra-high dynamic range of 140dB. In addition, MAT330 can output high frame rate video images at 60fps @1920Hx1080V. The product supports RAW/YUV422 output formats and provides iBGA and CSP packaging forms.

Item	Parameters
Resolution	3.0MP
Process	BSI
Pixel Size	3.0μm × 3.0μm
Pixel Array	1944H × 1560V
Optical Format	1/2.4 inch
Max Frame Rate	60fps @1920 × 1080 45fps @1920 × 1536
Output Format	RAW / YUV422
Output Interface	CSI-2 MIPI: MIPI 4-Lane, Max 1.0GHz
CRA	21.8°
Dynamic Range	140dB
Operation Temperature	-40°C ~ +105°C
Power Supply	Analog: 2.8V @AVDD Digital: 1.2V @DVDD IO: 1.8V @DOVDD
Package	iBGA / CSP

CMOS IMAGE SENSOR



MAT Series: MAT330

Features

- AEC-Q100 Grade 2
- ISO 26262 ASIL-B
- Automotive grade RISC-V MCU (ASIL-B)
- 140dB high dynamic range
- 60fps @1920×1080 high frame rate video output
- On-chip ISP, built-in image processing algorithm
- LED flicker suppression
- High sensitivity

Applications

- Car panoramic view application
- ADAS surround view
- Automatic parking
- CMS