

CMOS CAMERA MODULES



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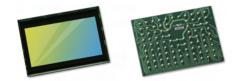
KLT-H3MF-OS08A20 V2.0 NIR OmniVision OS08A20 MIPI Interface Fixed Focus 8MP M12 Camera Module 没有IR红外滤镜



摄像头模组型号	KLT-H3MF-OS08A20 V2.0 NIR
图像感光芯片	OS08A20
焦距	5 mm
光圈	2.0
像素	3840 x 2160
可视角度	105°(D) 84°(H) 52°(V)
镜头类型	1/1.8 英寸,没有IR红外滤镜
镜头尺寸	16.40 x 16.40 x 33.67 mm
模组尺寸	40.00 x 22.00 mm
模组类型	固定焦距
接口	MIPI串行



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OSO8A20 8-megapixel product brief





High Resolution 8-Megapixel PureCel® Sensor Brings Superior Near-Infrared Imaging to Surveillance Applications

OmniVision's OS08A20 is the first 8-megapixel image sensor to combine Nyxel™ technology with OmniVision's PureCel® pixel architecture, which allows the OS08A20 to capture ultra-high definition (UHD) 4K2K video and images that are bright and crisp in all lighting conditions. This makes it an ideal imaging solution for professional surveillance systems, as well as other nascent security applications such as body-worn cameras.

OmniVision's breakthrough Nyxel™ technology delivers significant quantum efficiency (QE) improvements at 850 nm and 940 nm while maintaining high-modulation transfer function, allowing the OS08A20 to monitor a larger area. Additionally, by reducing the need for external lighting sources, Nyxel™ technology enables lower power consumption.

The OSO8A20 supports a wide range of resolution formats and frame rates, including 4K2K (3840x2160) in a 16:9 aspect ratio at 60 frames per second (fps), quad HD (2560x1440) at 60 fps, or full 1080p HD at 120 fps. It comes in a 2x2-micron pixel size and 1/1.8-inch optical format for improved sensitivity.

Find out more at www.ovt.com.





Applications

- Security Cameras
- Action Cameras
- High Resolution Consumer Cameras
- Digital Still Cameras (DSC)

■ Digital Video Camcorders (DVC)

Product Features

- 2 µm x 2 µm pixel
- optical size of 1/1.8"
- QE enhancement in 850 nm and 940 nm 12-bit ADC
- programmable controls for:
- frame rate mirror and flip
- cropping
- windowing
- supports output formats: 12-/10-bit RAW RGB
- supports image sizes: 4K2K (3840x2160) 2560 x 1440

 - 1080p (1920x1080) 720p (1280x720)

- supports 2x2 binning
- standard serial SCCB interface
- up to 4-lane MIPI/LVDS serial output interface (supports maximum speed up to 1500 Mbps/lane)
- 2-exposure staggered HDR support
- programmable I/O drive capability
- light sensing mode (LSM)
- PLL with SCC support
- support for FSIN



■ 0S08A20-H92A-1B (color, lead-free) 92-pin CSP

Product Specifications

- active array size: 3840 x 2160
- power supply:
- core: 1.2\ - analog: 2.8V - I/0: 1.8V

- power requirements: active: 240 mA XSHUTDOWN: <10 µA

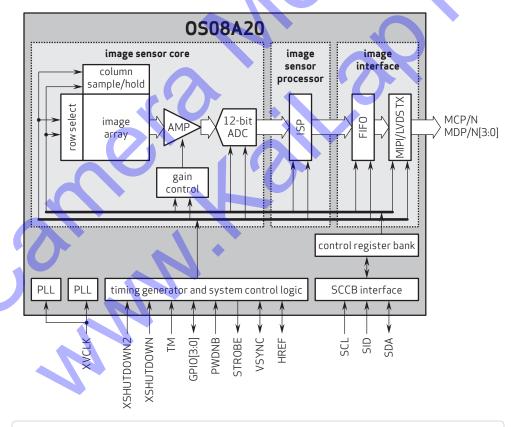
- temperature range:

 operating: -30°C to +85°C junction temperature

 - stable image: 0°C to +60°C junction
- temperature
- output formats: 10/12-bit RGB RAW
- lens size: 1/1.8"
- input clock frequency: 6 27 MHz

- lens chief ray angle: 11° linear
- max S/N ratio: 39 dB
- dynamic range: 74 dB @ 16x gain
- maximum image transfer rate:
 - **4K2K:** 60 fps - 2560 x 1440: 60 fps
- -1080p: 120 fps
- sensitivity: 13,000 e-/Lux-sec
- scan mode: progressive
- maximum exposure interval: VTS-8
- pixel size: 2.0 μm x 2.0 μm
- image area: 7736.256 µm x 4379.616 µm
- package dimensions: CSP: 8929.2 µm x 6330 µm

Functional Block Diagram



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