

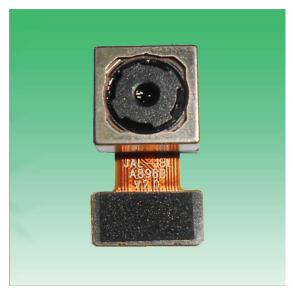
CMOS CAMERA MODULES



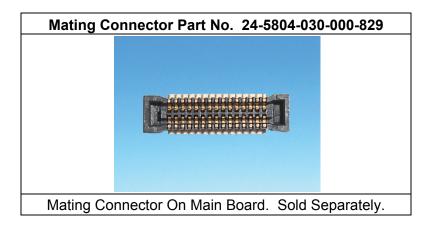
your BEST camera module partner

JAL-OV8865-A898B V2.0

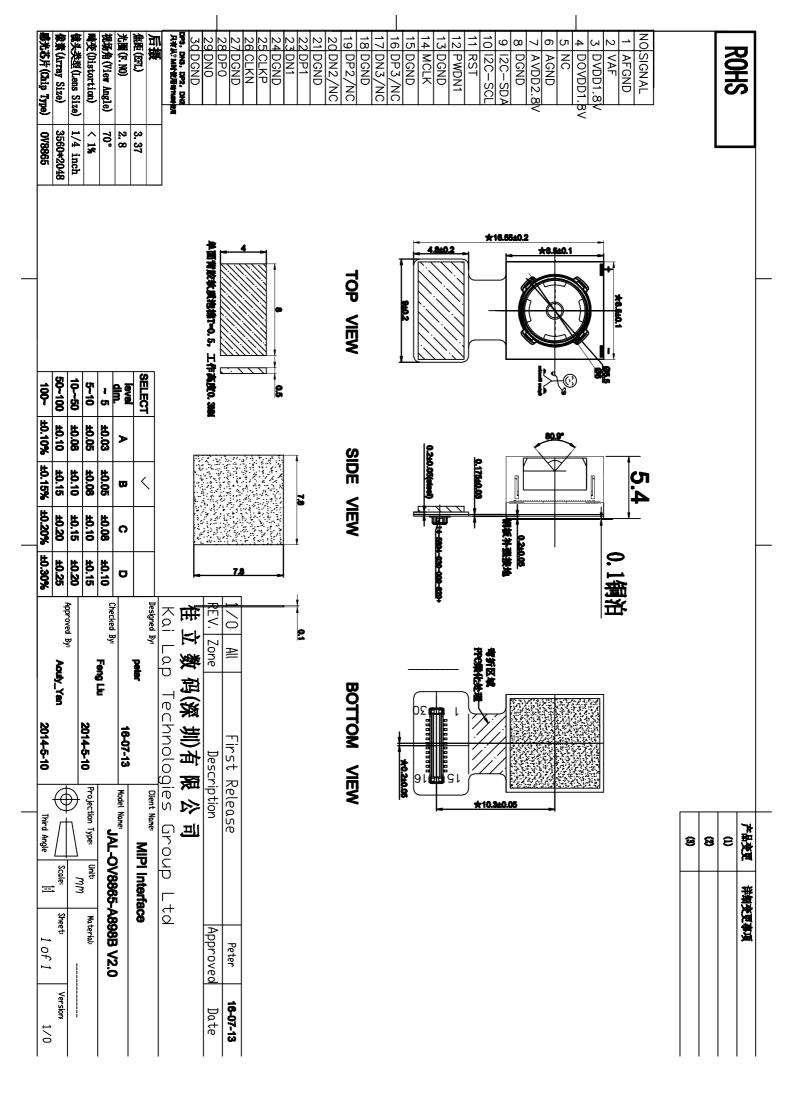
OmniVision OV8865 MIPI Interface Auto Focus 8MP Camera Module

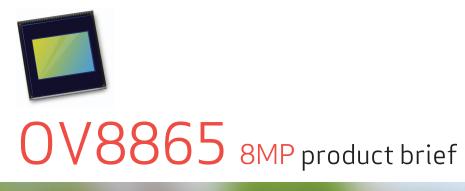


Camera Module No.	JAL-OV8865-A898B V2.0
Image Sensor	OV8865
EFL	3.37 mm
F.NO	2.8
Pixel	3560 x 2048
View Angle	70°
Lens Type	1/4 inch
Lens Dimensions	8.5 x 8.5 x 5.4 mm
Module Size	16.55 x 9 mm
Module Type	Auto Focus
Interface	MIPI



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Low-Power and Compact 8-Megapixel CameraChip™ Sensor with Improved Pixel Performance for Smartphones and Tablets

OmniVision's OV8865 is a low-power high-performance 8-megapixel camera solution for next-generation smartphones and tablets. Utilizing an improved 1.4-micron OmniBSI-2™ pixel, the OV8865 delivers best-in-class pixel performance in a smaller, more power efficient package compared to the previous generation OV8835 sensor.

The OV8865 offers a number of performance improvements including a five percent improvement in dynamic range and a 50 percent reduction in dark current, resulting in superior high- and low-light images. Furthermore, the OV8865 consumes considerably less power than the OV8835, achieving the sub 200 mW benchmark preferred by high-end mobile device manufacturers.

The 1/3.2-inch OV8865 supports an active array of 3264×2448 (8-megapixels) operating at 30 frames per second (fps) for high-speed photography. The sensor is also capable of capturing 1080p high-definition (HD) video at 30 fps or 720p at 60 fps.

The OV8865 fits into an industry standard $8.5 \times 8.5 \times 5$ mm package.

Find out more at www.ovt.com.



Applications

- Cellular Phones
- PC Multimedia

■ Tablets

Product Features

- programmable controls for frame rate, standard serial SCCB interface mirror and flip, cropping, and windowing
- static defective pixel canceling
- supports output formats: 10-bit RAW RGB (MIPI)
- supports horizontal and vertical subsampling
- supports images sizes: 3264x2448, 3264x1836, 2816x1584, built-in temperature sensor 1632x1224, 1408x792

- automatic black level calibration (ABLC) supports 2x2 binning, re-sampling filter

 - up to 4-lane MIPI serial output interface
 - embedded 1536 bytes one-time programmable (OTP) memory for part identification, etc.
 - two on-chip phase lock loops (PLLs)
 - programmable I/O drive capability

OV8865



■ 0V08865-G04A-1D

(color, chip probing, 200 µm backgrinding, reconstructed wafer with good die)

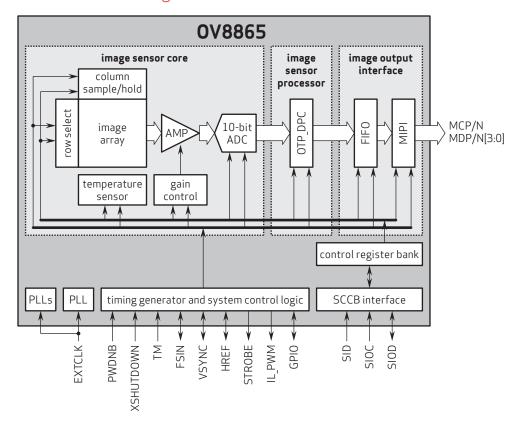
Product Specifications

- active array size: 3264 x 2448
- power supply:
 - core: 1.2V analog: 2.8V I/O: 1.8V, 2.8V
- power requirements:
 active: 196 mW (full resolution @ 30 fps) sensitivity: 940 mV/lux-sec
 XSHUTDOWN: 5 µW

- temperature range:operating: -30°C to +85°C junction temperature
- stable image: 0°C to +60°C junction temperature
- output formats: 10-bit RAW RGB data
- lens size: 1/3.2"
- lens chief ray angle: 32.2° non-linear

- input clock frequency: 6 27 MHz
- max S/N ratio: 36.7 dB
- dynamic range: 68.8 dB
- maximum image transfer rate: 30 fps
- scan mode: progressive
- pixel size: 1.4 µm x 1.4 µm
- dark current: 20 e⁻/sec @ 60°C junction temperature
- \blacksquare image area: 4614.4 $\mu m \times 3472 \, \mu m$
- die dimensions: 5850 µm x 5700 µm

Functional Block Diagram



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