

PB-0330 1/4-Inch CMOS Active-Pixel **Digital Image Sensor**

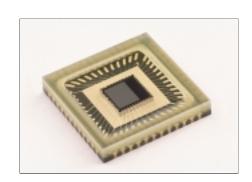
May 2001 **Product Brief**

Description

The PB-0330 is a 1/4-inch CMOS active-pixel digital image sensor. It incorporates sophisticated camera functions on-chip, consumes little power, and is programmable through a simple two-wire serial interface. The sensor's image format is VGA (640H x 480V).

The sensor can be operated in its default mode or programmed by the user for frame size, exposure, gain setting, and other parameters. The default mode outputs a VGA-size image at 30 frames per second. An on-chip analog-to-digital converter (ADC) provides 10 bits per pixel. Frame- and line-valid signals are output on dedicated pins, along with a pixel clock which is synchronous with valid data.

48-Pin PLCC



Features

Array Format Active: 640H x 480V (307,200 pixels)

Pixel Size and Type 5.6 µm x 5.6 µm active-pixel photodiode-type

Color Filter Array R, G and B primary color filters

Optical Format 1/4-inch Supply Voltage 3.3V ±0.3V

Frame Rate 30 VGA frames/sec progressive scan; programmable

12 MHz at 24 MHz master clock

1.8 V/lux-sec with source illumination @ 550nm

45 dB: 60 dB

Electronic rolling snap (ERS)

Window size, gain, frame rate, ADC reference

On-chip 10-bit serial

<100 mW at maximum data rate

48-pin PLCC

Programmable Controls ADC

Responsivity (green pixels) SNR_{max}; Dynamic Range

Power

Shutter

Package

Data Rate

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48-Pin PLCC Package Dimension

