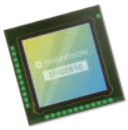
OH02B10

2 megapixel product brief



1/7.5" CMOS 2 Megapixel (1500 x 1500) Image Sensor with PureCel®Plus-S Technology

OH02B10 is a square 2 megapixel (MP) (1500 x 1500) resolution CMOS image sensor for gastrointestinal, ENT, orthopedic, surgical, dental, and veterinarian reusable and disposable endoscopes, catheters, and guide wires. The miniature square form factor of the OH02B10 saves space for higher resolution in smaller designs. It allows endoscopes to have a smaller outer diameter (6 mm) or larger working channels for advanced endoscope designs. The OH02B10 is based on OMNIVISION's latest PureCel®Plus-S stacked-die technology, enabling high functionality in the smallest possible die size.

The OH02B10 is available in the OCH2B10 CameraCubeChip® package that features a small 2.5 x 2.5 mm size with exceedingly high image quality for disposable endoscope designs. The OH02B10 is autoclavable and does not require tuning or calibration.

Find out more at www.ovt.com.

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OH02B10

Ordering Information

- **OH02B10-A24A-001A-Z** (color, lead-free)
  24-pin CSP

Applications

- endoscopes

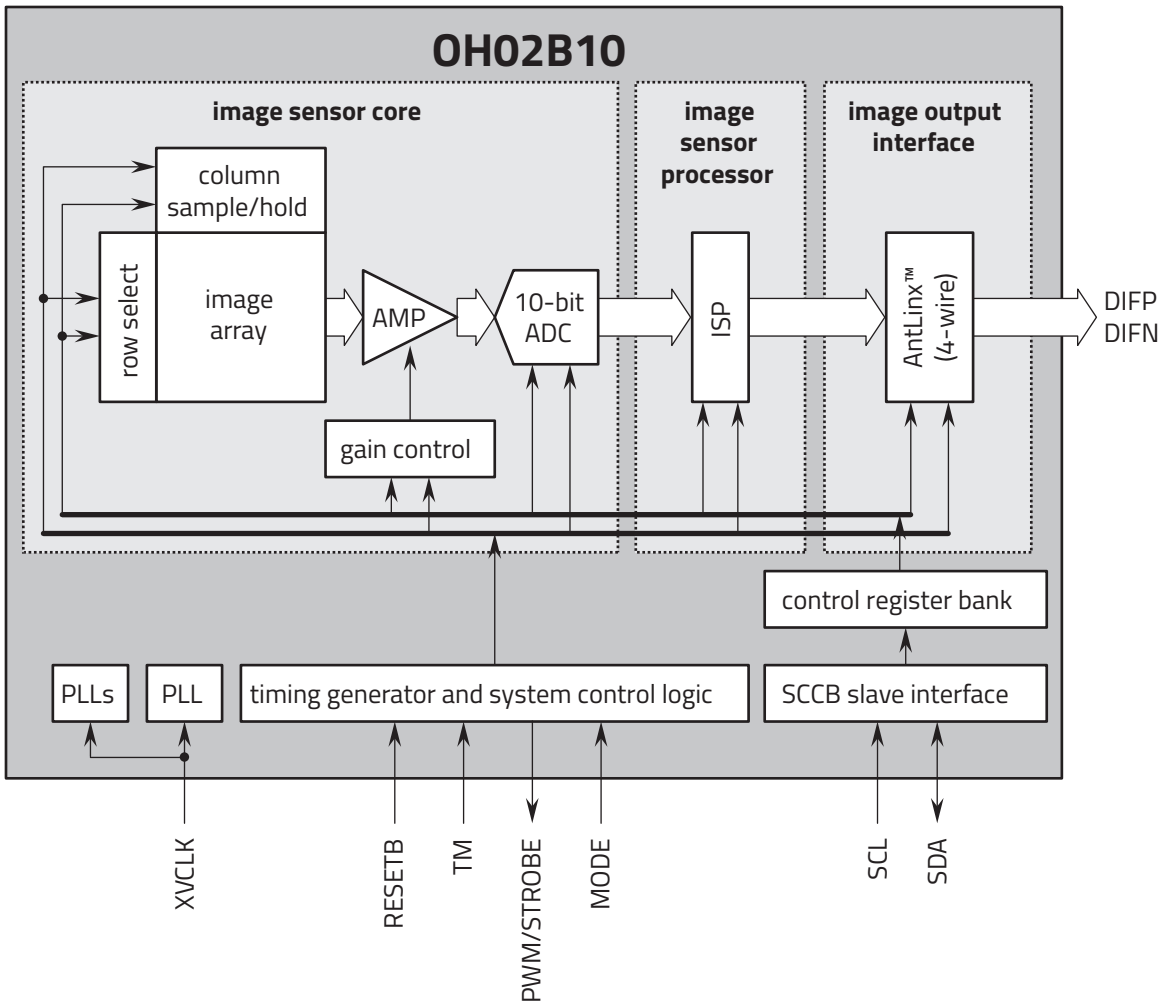
Technical Specifications

- **active array size:** 1516 x 1516
- **maximum image transfer rate:**
  - 1500 x 1500: 60 fps
- **power requirements:**
  - standby: 650 µA
- **temperature range:**
  - operating: -30°C to +85°C junction temperature
  - stable image: 0°C to +60°C junction temperature
- **output formats:**
  10-bit RGB RAW
- **lens size:** 1/7.5"
- **lens chief ray angle:** 32.54° non-linear
- **scan mode:** progressive
- **pixel size:** 1.116 µm x 1.116 µm
- **image area:**
  1691.856 µm x 1691.856 µm

Product Features

- automatic black level calibration (ABLC)
- programmable controls for:
  - frame rate
  - mirror and flip
  - binning
  - cropping
  - windowing
- support for dynamic DPC
- supports output formats:
  - 10-bit RGB non-HDR
- supports horizontal and vertical subsampling
- supports typical images sizes:
  - 1500 x 1500
  - 960 x 540
  - 1280 x 720
  - 640 x 480
- AntLinx™ (4-wire) interface with speeds up to 1.6 Gbps
- standard serial SCCB interface
- HDR support:
  - stagger HDR 2 exposure timing
- two on-chip phase lock loops (PLLs)
- built-in temperature sensor
- 1.116 µm x 1.116 µm pixel

Functional Block Diagram



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