



OCH2B10



2 megapixel product brief

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

OCH2B10 camera module includes OMNIVISION's new OH02B10 square 2 megapixel (MP) (1500 x 1500) resolution CMOS image sensor. The OCH2B10 is available in the smallest form factor 2.5 x 2.5 mm CameraCubeChip® package for disposable endoscope designs. It features OMNIVISION's AntLinx™ proprietary technology, which provides the thinnest 4-meter interface connection directly from the endoscope camera to the camera control unit tower. AntLinx™ delivers superior video quality and reduces interface conversion requirements, even for long-reach applications like gastrointestinal endoscopy.

OMNIVISION is ISO13485 certified and medical products are EMC and EMI tested, which helps to streamline the medical device OEM's FDA approval process. The OCH2B10 is biocompatible and waterproof.

Find out more at www.ovt.com.



- OCH2B10-RAUA-001A-Z (color, lead-free)
24-pin CameraCubeChip®

Applications

- disposable medical, dental, veterinarian, and industrial endoscopes

Technical Specifications

- **active array size:** 1500 x 1500
- **maximum image transfer rate:**
 - 1500 x 1500: 60 fps
- **power requirements:**
 - standby: 650 μ A
- **temperature range:**
 - operating: -20°C to +70°C junction temperature
 - stable image: 0°C to +50°C junction temperature
- **output formats:** 10-bit RGB RAW
- **optical size:** 1/7.5"
- **diagonal field-of-view (FOV):** 130° $\pm$ 7°
- **f no.:** 5.5
- **focal length:** 0.763 mm
- **scan mode:** progressive
- **pixel size:** 1.116 μ m x 1.116 μ m
- **image area:** 1691.856 μ m x 1691.856 μ m
- **package dimensions (including ball height):** 2565 x 2565 x 3634 μ m

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
- AntLinX™ (4-wire) interface with speeds up to 1.6 Gbps
- supports typical images sizes:
 - 1500 x 1500
 - 960 x 540
 - 1280 x 720
 - 640 x 480
- standard serial SCCB interface
- HDR support:
 - stagger HDR 2 exposure timing
- two on-chip phase lock loops (PLLs)
- built-in temperature sensor
- 1.116 μ m x 1.116 μ m pixel
- non-autoclavable

Functional Block Diagram

