

OCH2B30 2-megapixel product brief



Smallest Camera Module for 3D Intraoral Dental Scanners

The new OCH2B30 camera module for three-dimensional (3D) intraoral dental scanners features a compact CameraCubeChip® package in an ultra-small form factor (2.6 mm x 2.6 mm), which is especially important when there are multiple cameras in each scanning device. It offers exceedingly high image quality and MIPI interface for cameras in benchtop, standalone and portable intraoral scanners.

The OCH2B30 camera module has a 2-megapixel (MP) resolution square-format CMOS image sensor with a 1.12-micron (μ m) pixel built on OMNIVISION's latest PureCel®Plus-S stacked-die technology, which enables its

ultra-small size. At 1500 x 1500 resolution, the OCH2B30 achieves 60 frames per second (fps), and at 720p resolution, 120 fps.

The OCH2B30 is tested for EMC/EMI compliance and sterilization, and it is biocompatible and waterproof. Because it passes OMNIVISION's rigorous production testing, it is guaranteed to be within the stated electrical, mechanical and optimal specifications, and hence does not require tuning or calibration.

Find out more at www.ovt.com.



OCH2B30

Ordering Information

 OCH2B30-RAUA-001A (color, lead-free) 24-pin CameraCubeChip®

Applications

dental

Product Features

- automatic black level calibration (ABLC)
 supports typical images sizes:
- 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
- standard serial SCCB interface

- 1500 x 1500 960 x 540
- 1280 x 720
- 640 x 480
- 2-lane MIPI TX interface with speeds up to 1.0 Gbps/lane
- HDR support: stagger HDR 2 exposure timing
- two on-chip phase lock loops (PLLs)
- built-in temperature sensor
- non-autoclavable
- 1.116 µm x 1.116 µm pixel

Technical Specifications

- active array size: 1500 x 1500
- maximum image transfer rate: - 1500 x 1500: 60 fps
- power supply (mode 1):
 AVDD: 2.7V to 3.0V (2.8V nominal)
- DVDD: 1.14V to 1.26V (1.2V nominal)
- power supply (mode 2): analog: 2.8V
- core: 1.2V - I/0: 1.2V
- power requirements:
- active: 124 mW (1500 x 1500 @ 60 fps) standby: 2 mA
- output formats: 10-bit RGB RAW

- temperature range:
 operating: -20°C to +70°C
 - junction temperature
- stable: 0°C to +50°C junction temperature
- optical size: 1/7.5"
- diagonal field-of-view (FOV): 140°
- fno.: 5.5
- scan mode: progressive
- pixel size: 1.116 μm x 1.116 μm
- image area: 1691.856 μm x 1691.856 μm
- package dimensions (including ball height): 2565 x 2565 x 3634 µm





4275 Burton Drive Santa Clara, CA 95054 USA

Tel: + 1 408 567 3000 Fax: + 1 408 567 3001 www.ovt.com

OMNIVISION re roduct or service without further notice. OMNIVISION, the OMNIV Cel, and CameraCubeChip are registered trademarks of OmniVisior trademarks are the prop rty of their respect