



OCHFA10



720 x 720 product brief

Color CMOS Analog 518 Kpixel (720 x 720) CameraCubeChip® for Disposable Endoscopic Cameras

OMNIVISION's OCHFA10 CameraCubeChip® is a 1/17.5" color 518 Kpixel analog camera for the rapidly growing disposable medical endoscope market. It is the same size as the OVM6946 but has higher resolution, and is an ideal upgrade for bronchoscopes, ureteroscopes and hysteroscopes. It can also be used for industrial borescopes.

The OCHFA10 CameraCubeChip® integrates the image sensor, processor, and lenses in a miniature wafer-level camera module. It features OMNIVISION's PureCel®Plus-S pixel technology, enabling high functionality in the smallest possible die size. With 720 x 720 resolution at 30 frames per second, it provides the best image quality for improved patient outcomes.

Find out more at www.ovt.com.



- OCHF10-RAJA-001A-Z (color, lead-free)
AntLin[™] Analog CameraCubeChip[®]

Applications

- disposable medical, dental, veterinarian, and industrial endoscopes

Product Features

- optical size of 1/17.5"
- AntLin[™] Analog output
- single 3.3V power supply
- on-chip PLL
- serial peripheral interface (SPI)
- exposure and gain control
- pseudo-global shutter (LED mode)
- PureCel[®]Plus-S pixel structure
- improved sensitivity, FWC, zero blooming, low noise, and low power consumption
- enhanced NIR sensitivity
- square aspect ratio
- minimum package size (total 4 pads)
- non-autoclavable
- 4 m drive distance

Technical Specifications

- active array size: 720 x 720
- maximum image transfer rate:
 - 518 Kpixel (720 x 720): 30 fps
 - 360 Kpixel (600 x 600): 40 fps
 - 160 Kpixel (400 x 400): 60 fps
- power supply:
 - analog: 3.3V ±5%
- power requirements: 25 mW (with IO consumption)
- temperature range:
 - operating: -20°C to +70°C junction temperature
 - stable image: 0°C to +50°C junction temperature
- output formats: analog signal output
- optical size: 1/17.5"
- diagonal field-of-view (FOV): 123° ± 3°
- f no.: 5.0
- focal length: 0.417 mm
- scan mode: progressive
- pixel size: 1.008 μm x 1.008 μm
- image area: 733.824 μm x 733.824 μm
- net weight: 4.85 mg
- package dimensions (including ball height): 1075 x 1075 x 2241 μm

Functional Block Diagram

