

OCHTA Cable Module



400 x 400 product brief

Thin Cable Module for Ultra-Small Single-Use Endoscopes

The OVMed® OCHTA Cable Module is the thinnest medical-grade cable module for single-use endoscopes. The OCHTA Cable Module connects the world's smallest 400 x 400 resolution imager to endoscopes with ultra-thin 0.45 mm cables that are available in 1.5 and 2.5 meter lengths (or up to 4 meters if customized) with the option to add mini-LED illumination. This complete turnkey solution, including the lens and image signal processor, reduces cost and speeds time to market for medical device OEMs.

OMNIVISION's OCHTA Cable Modules feature a six-wire cable that allows manufacturers to add their own LED illumination. Additionally, OMNIVISION offers customizable cable lengths, connectors and LEDs, providing manufacturers with a fully tested and production-ready solution from a single source. The OCHTA Cable Module includes the world's smallest imager, upgraded from 200 x 200 (previous generation) to 400 x 400 resolution, for improved visibility.

The OCHTA Cable Modules are manufactured in ISO 13485-certified facilities. Additionally, the cables provide the necessary EMC/EMI shielding from the patient as per IEC 60601 requirements.

Find out more at www.ovt.com.

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Ordering Information

- **OCHTA10-KL1C-0A3E-Z** (color, lead-free) OVMed® cable module with single channel, no illumination, connector A, 1.5 m, 6 wires (4 wires for AntLinx™ Analog, 2 wires for LED connection), generation 1
- **OCHTA10-KL1C-0B2E-Z** (color, lead-free) OVMed® cable module with single channel, no illumination, connector B, 1.5 m, 4 wires for AntLinx™ Analog, generation 1
- **OCHTA10-KL1E-0B2E-Z** (color, lead-free) OVMed® cable module with single channel, no illumination, connector B, 2.5 m, 4 wires for AntLinx™ Analog, generation 1

Applications

- medical endoscopes
- veterinarian endoscopes
- dental equipment
- industrial endoscopes

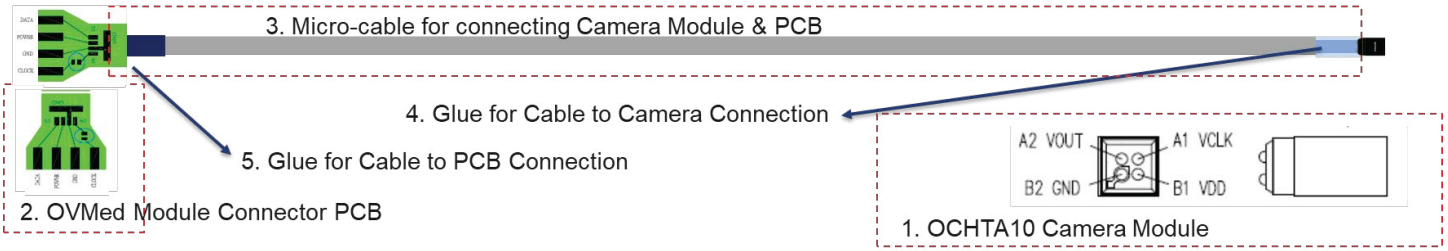
Product Features

- optical size of 1/31"
- non-autoclavable
- AntLinx™ 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)
- 4 m drive distance
- different lengths of cable and LED configurations are available upon request

Technical Specifications

- **active array size:** 400 x 400
- **power supply:** analog: 3.3V ±5%
- **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:** 1/31"
- **diagonal field of view (FOV):** 120° ±6°
- **f no.:** 2.8
- **focal length:** 0.175 mm
- **maximum exposure:** 876 x Tline
- **scan mode:** progressive
- **frame rate:**
  - 160 Kpixel (400 x 400): 30 fps
- **color mosaic:** RGB Bayer pattern
- **pixel size:** 1.008 µm x 1.008 µm
- **image area:** 411.264 µm x 411.264 µm
- **tip x-y dimensions:**
  - maximum x-dimension: < 0.715 mm
  - maximum y-dimension: < 0.715 mm
- **rigid parts z-dimension:** < 4 mm
- **cable diameter:**
  - KL1C-0A3E: 0.40 ±0.1 mm
  - KL1C-0B2E: 0.52 ±0.1 mm
  - KL1E-0B2E: 0.45 ±0.1 mm
- **cable length:**
  - KL1C-0A3E: 1500 ±20 mm
  - KL1C-0B2E: 1500 ±20 mm
  - KL1E-0B2E: 2500 ±20 mm
- **end connector PCB:**
  - 6-pin connector A (4 wires for AntLinx™ Analog, 2 wires for LEDs customer can install): 15.6 mm x 25 mm; 0.1" pitch
  - 4-pin connector B (4 wires for AntLinx™ Analog): 10.6 mm x 25 mm; 0.1" pitch

Functional Block Diagram



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4275 Burton Drive
Santa Clara, CA 95054
USA

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

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