OVMed®

OH0116 Mini Class Medical ISP Module product brief

USB Module is Cost-Effective and Compact for Endoscopes and Catheters

OmniVision's OVMed® OH0116 is an ASIC-based, standalone image signal processor (ISP) module with USB output. Designed to pair with our high-performance medical image sensors, the OVMed® OH0116 provides a small and cost-effective option for catheters and single-use and reusable endoscope handles.

The OVMed® OH0116 module can be quickly and easily integrated into medical imaging systems, allowing customers to fully utilize the many performance and imaging capabilities this compact module has to offer without extending time-to-market.

Find out more at www.ovt.com.

OmniVision®

Applications

- Medical Endoscopes
- Veterinarian Endoscopes
- Dental Imaging
- Industrial Video Scopes
- Security and Surveillance Monitoring Systems

OVMed® OH0116

OH00000-EG03-001A-0116
pictured here

Product Features

- Intergraded design:
  - Sensors
  - Interface
  - Analog-to-digital converter
  - Processor bridge
  - ISP
  - PC interface
- Compact form factor to fit space-constrained devices
- Adjustable system parameters with predefined buttons
- ISP delivers high-quality images
- Ready-to-use software development kit (SDK) to facilitate easy integration
- Power-on time: <300 ms
- System latency: <160 ms

Evaluation Kit Ordering Information

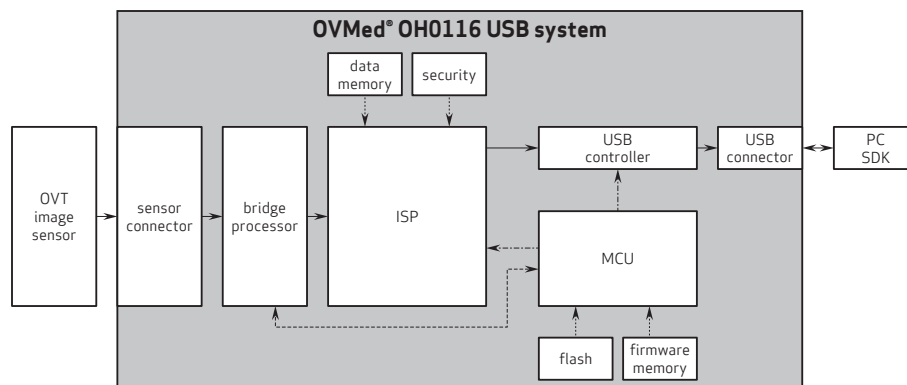- **Contact Sales Rep**
  OVMed® ISP (mini) with USB output

  Package Includes:
  - OmniVision camera AA module or OVMed® cable module with OV6946 image sensor
  - PCB board for OV6946 interface
  - USB cable with USB mini connector
  - CD-ROM or USB stick containing:
    - Installation program
    - OVMed_SDK_Install_Guide
    - OVMed_SDK_User_Guide
    - Demo programs with source code

Product Specifications

- Supports images: 400 x 400 and 200 x 200 pixel
- YUV image format
- Sensor interface to 4-pin mixed-signal interface
- Output interface to USB 2.0 interface
- Supports AEC/AGC/AWB control
- Supports brightness, saturation and sharpness adjustment
- Supports:
  - Lens shading compensation
  - Defect pixel connection
  - De-noise
  - Black level compensation
- Support for nonvolatile memory to store production and calibration data
- Certified for RoHS, REACH, IEC 60601 (limited), IEC 62304

Software Development Kit (SDK)

- Board comes with SDK to help customers develop their own applications. SDK provides a C++ callable function library
- Main Features:
  - Provides system initialization
  - Provides interface to capture image
  - Easy for customers to develop their own GUI and applications
- User does not need to modify hardware or registers
- Provides demo program to show how to use the APIs
- All demo programs come with executable and source code
- Library is provided in binary (DLL) format
- Supports Windows OS

Mechanical Specifications

- Size: L: 60 mm, W: 16 mm
- Power switch: 1
- Predefined adjustment button: 7
- Input connector: 4-pin OmniVision AA module; 10-pin connector
- Output USB connector: Micro USB

Functional Block Diagram

OVMed® OH0116 USB system

- data memory
- security
- OVT image sensor
- sensor connector
- bridge processor
- ISP
- USB controller
- USB connector
- PC SDK
- MCU
- flash
- firmware memory

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