



OVMed®

MEDICAL
DESIGN BRIEFS

2019 Product of the Year

OH0120 Advanced Class Medical Image Processing Unit product brief



OmniVision Expands OVMed® Image Signal Processor Family for Endoscopes and Catheters with External USB Storage and HDMI Output

OmniVision's OH0120 ASIC-based board is a member of its award-winning OVMed® medical image signal processor (ISP) family, designed to pair with its high performance medical image sensors for quick integration into single-use and reusable endoscopes as well as catheters. The OH0120 provides a cost-effective, off-the-shelf, board-level option with HDMI connectivity and LCD screen support, as well as external USB memory-card storage.

The OVMed® ISP family remains the medical industry's most extensive offering, and is optimized to take full advantage of OmniVision's medical image sensors. This broad portfolio provides medical device designers with an industry-leading feature set and image quality, along with comprehensive development resources that enable them to focus on differentiated post-processing algorithms.

The OH0120 provides medical designers with a cost-effective solution for developing analog-input and HDMI-output systems

with up to 720p resolution. It features LED light control and LCD-screen drivers for integrating the display directly into a handheld or rack-based camera control unit (CCU). The OH0120 also includes on-board memory and a USB 2.0 port for external memory cards with up to 64GB, which can store up to 30 hours of video recordings. These features, along with native support for Android applications, help designers get to market quickly.

The OH0120 is medically pre-certified to comply with IEC 60601 (ESD, EMC, EMI, patient isolation). Additionally, it is compliant with REACH and RoHS, and is manufactured in facilities certified to the ISO 13485 and ISO 9001 standards.

Find out more at www.ovt.com.



OmniVision

Applications

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

Product Features

- Integrated design:
 - Sensor
 - Processor bridge
 - ISP
 - Display interface
- Small form factor fits standard medical equipment
- Easily adjustable system parameters with pre-defined buttons
- Advanced ISP delivers high-quality images
- Works stand-alone; no computer needed
- Software tool for customer setting adjustments
- Market-ready, end-to-end solution
- Compatible with HDMI monitors
- Android platform: Customers can develop in Android

Product Specifications

- Supports image sizes: 400 x 400 and 200 x 200
- Image output formats: RGB, RAW and YUV
- Image capture rate: 30 fps
- Display resolution: 720p and 1080p at 60 fps
- 4-pin mixed-signal interface for OmniVision medical image sensors
- Output interfaces: HDMI
- Standard 5V power supply
- Supports AEC/AGC/AWB control
- 8 hardware buttons support adjustments, including brightness, contrast, saturation and others
- Reconfigurable buttons and settings via USB port connection to a PC

Mechanical Specifications

- Size: Length: 132 mm, Width: 104 mm
- Input connector: 4-pin OmniVision AA module; 10-pin connector
- Power switch: 1
- Configuration connector: Mini USB
- Output to display: HDMI

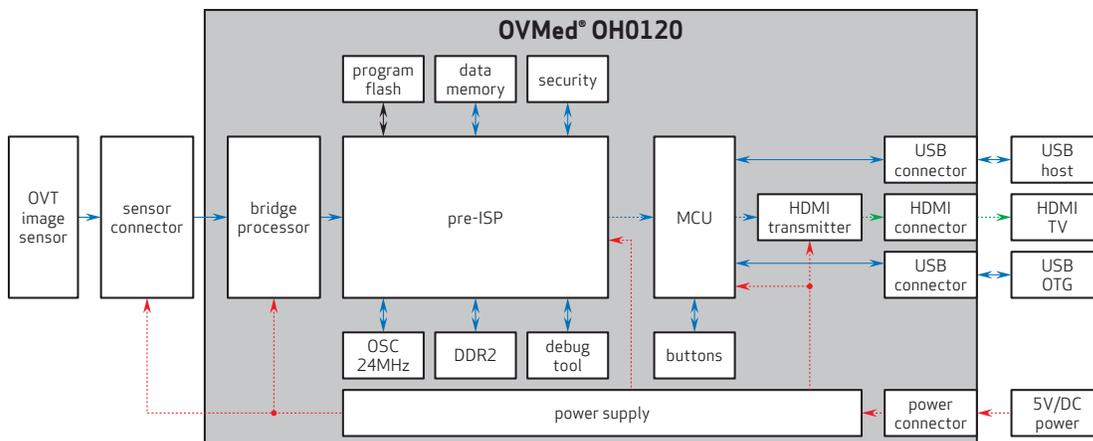
OVMed[®] OH0120



Ordering Information

- Contact Sales Rep**
Complete SDK evaluation kit (advanced) for OV6946-based medical camera
- Package includes:
 - OmniVision camera AA module/daughter board with OV6946 image sensor
 - PCB motherboard with OV6946 interface
 - USB power adapter
 - USB cable with USB mini connector
 - HDMI cable for HD monitor
 - CD-ROM containing:
 - Setup program
 - Install guide
 - User guide

Functional Block Diagram



4275 Burton Drive
Santa Clara, CA 95054
USA

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

OmniVision reserves the right to make changes to their products or to discontinue any product or service without further notice. OmniVision and the OmniVision logo are registered trademarks of OmniVision Technologies, Inc. OVMed is a registered trademark of OmniVision Technologies, Inc. in the United States. All other trademarks are the property of their respective owners.

