



# OH1093



## OVMed® ISP product brief

### Advanced Class Medical Imaging Processing Unit – Compact IPU With High Image Quality for Endoscope CCUs

OMNIVISION's OVMed® OH1093 Image Processing Unit (IPU) is an ASIC-based, imaging solution featuring advanced automatic exposure and gain control, RGB noise reduction, edge enhancement and RAW 8/10/12 image output. The OVMed® OH1093 IPU interfaces with our high-performance medical image sensors and can fit into an endoscope's camera control unit (CCU).

This IPU allows medical designers to leverage the benefits of our extremely small image sensors with easy integration into their systems, enabling a short time to market with high image quality.

Find out more at [www.ovt.com](http://www.ovt.com).



# OVMed® OH1093

## Evaluation Kit Ordering Information

Example  
Evaluation Kit  
Pictured Here



- Contact Sales Rep OH1093 evaluation kit
- Package Includes:
  - OMNIVISION camera AA module or OVMed® cable module
  - PCB board camera interface, OV426 A/D converter and ISP
  - USB cable with USB mini connector
  - Download available for OvtMedical demo software

## Software Development Kit (SDK)

- The OVMed® OH1093 IPU comes with a Software Development Kit (SDK), a ready-to-use integration tool that enables customers to develop applications as needed. The SDK also provides a C++ callable function library.
- The SDK's main features include:
  - Provides system initialization and load setting
  - Provides interface for image output formats (RAW, YUV, RGB)
  - Provides interface for system controls for settings such as brightness, contrast, saturation, sharpness, and de-noise
  - Auto white balance (AWB) and Manual white WB control
  - Customizable development of new Graphical User Interfaces (GUIs) and applications
  - No hardware modification or registration required
  - Supports customer-defined function buttons
  - Provides tutorial for API use with executable source code
  - Library provided in binary (DLL) format
  - Supports Windows OS

## Mechanical Specifications

- Size L: 86 mm W: 35 mm
- Input connector: 4-pin OMNIVISION AA Module; 10-pin Hirose connector
- Output USB connector: Mini USB

## Applications

- Medical and Veterinary Endoscopes
- Security and Surveillance System
- Industrial Processing Cameras

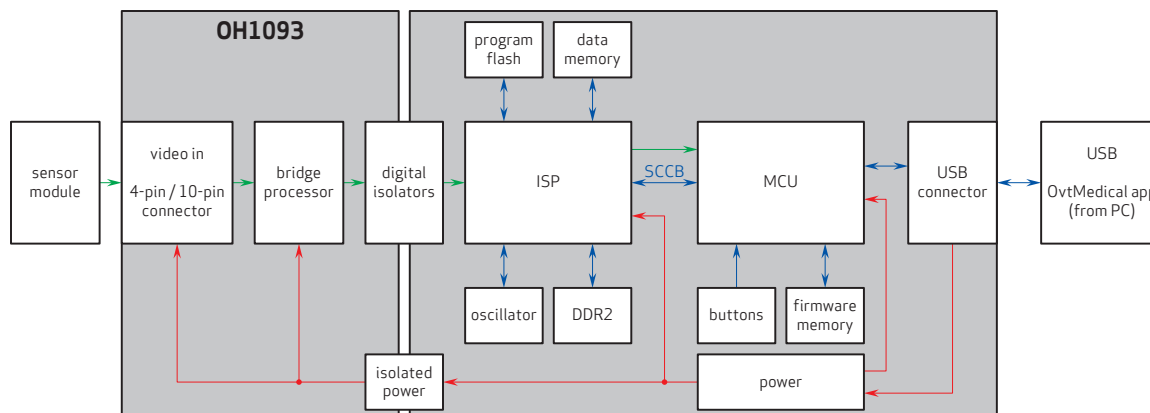
## Product Features

- Integrated design: sensor, processor bridge, ISP, and PC interface
- Seamless evaluation and build with customer equipment
- Small form factor to fit space-constrained equipment
- Market-ready, end-to-end solution
- Easily adjustable system parameters with pre-defined buttons
- Software compatibility with Windows
- Patient Isolation design
- Advanced ISP delivers high quality images
- Low EMC/EMI to help passing customer medical device certification
- Ready-to-use Software Development Kit (SDK) to facilitate IP integration

## Product Specifications

- Supports image size: 400 x 400
- USB 5V power supply
- Image output formats: RGB, RAW, and YUV
- Supports AEC/AGC/AWB control
- Sensor interface to 4 pin mixed signal interface
- Supports manual white balance
- Output interface USB2.0 interface
- Supports brightness/contrast adjustment
- Current 300 mA (min >30 mA; max <500 ma)
- Supports saturation adjustment
- Supports sharpness adjustment.
- Supports deFPN and de-noise function

## Functional Block Diagram



Version 1.0, May 2022

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 trademarks or registered trademarks of OmniVision Technologies, Inc. OVMed is a registered trademark of OmniVision Technologies, Inc. All other trademarks are the property of their respective owners.

 **OMNIVISION™**