OVMed®

OH0142 Mini Class ISP Module product brief

Cost-Effective, Compact Module for Stereoscopic 3D Imaging

OmniVision's OVMed® OH0142 is an ASIC-based, stand-alone image signal processor (ISP) module that offers dual-channel processing to support stereoscopic 3D imaging. Designed to take inputs from two image sensors and process the data stream in parallel, the OVMed® OH0142 module pairs easily with OmniVision's high-performance medical image sensors.

The OVMed® OH0142 module allows customers to quickly and easily integrate or dual-channel ISP into an endoscope handle to take advantage of its many performance and imaging capabilities.

Find out more at www.ovt.com.

OmniVision

OVMed® OH0142

Applications

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

Product Features

- Provides stereo 3D vision for medical applications needing depth and perspective information
- Form-factor fits inside camera control unit (CCU) / video processor unit (VPU)
- Integrated design including ADC, dual-channel ISP and PC interface
- Best-in-class image quality and feature set
- Input interface to dual OVT analog imagers
- Video output via dual-USB2.0 interface
- Predefined GPIO pins to connect to buttons to control the system
- Short system delay (<100ms)
- LED control
- Low power consumption
- Software development kit (SDK) and API for customer SW development
- Software compatible with Windows platform

Ordering Information

- **Contact Sales Rep**
  OVMed® OH0142 with USB output

  Package Includes:
  - 2xOVM6946-EAAA-AA0A: Prototyping module for 400x400 color, analog RAW output image sensor in 4 pin, CSP3 package
  - PCB board containing dual-OV6946 interface, dual-OV426 A/D converter and dual-ISP
  - 2xUSB cable with USB micro i/f
  - CD-ROM containing:
    - User's guide (contains Installation guide)
    - Installation program

Product Specifications

- Supports images up to 2 x 400 x 400 pixel
- YUV image format
- Sensor interface to 10-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
- Supports image manipulation such as scaling, mirror and flip
- Support for nonvolatile memory to store production and calibration data
- Certified for RoHS, REACH, IEC 60601 (limited), IEC 623204

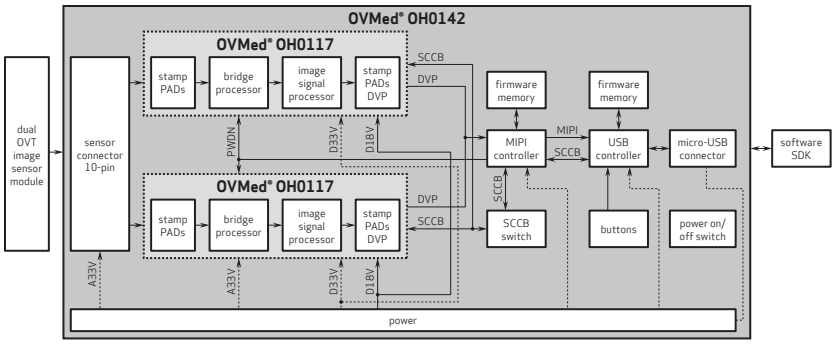
Software Development Kit (SDK)

- 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
- Main Features (continued):
  - 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



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