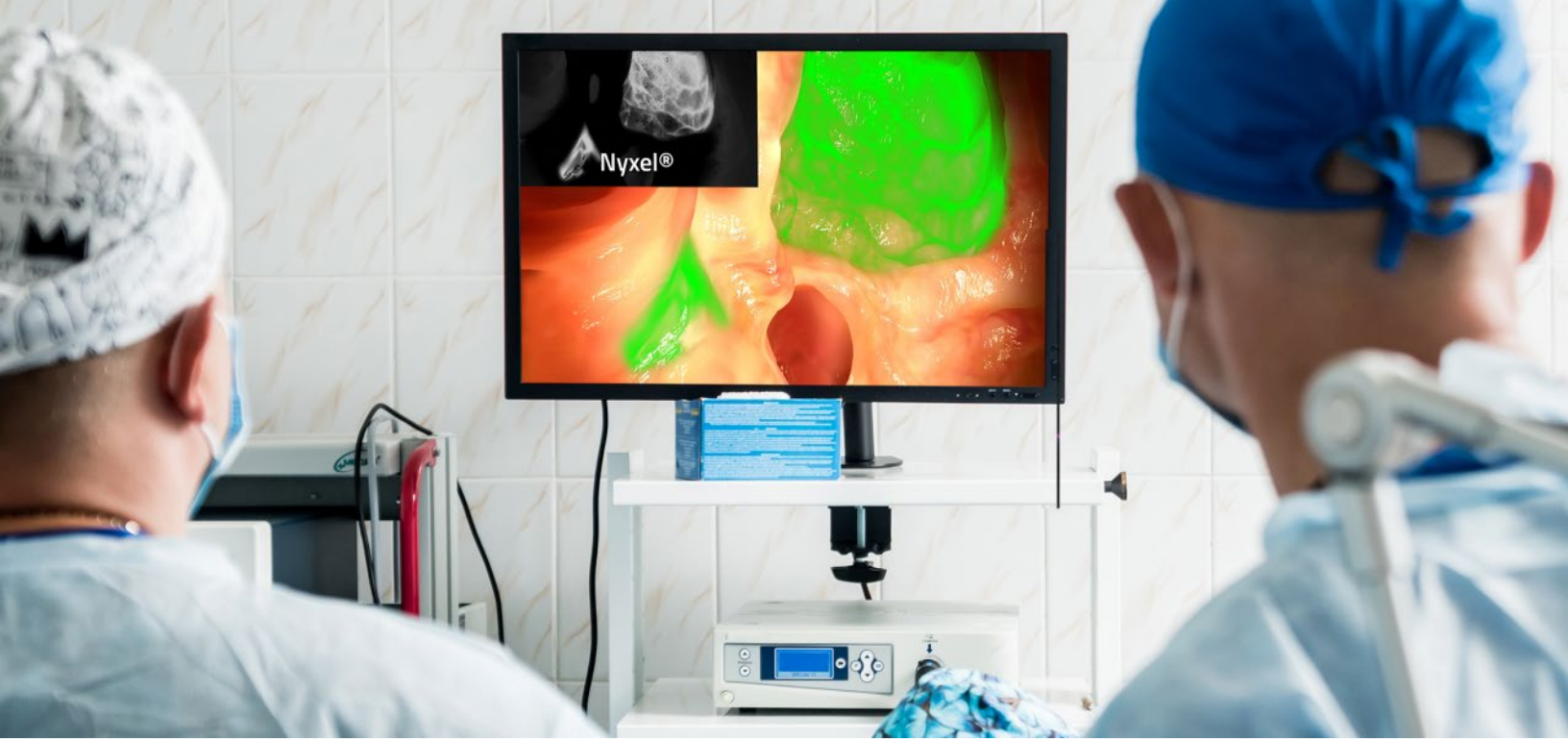

OH08B

8-Megapixel Product Brief

Industry's First 8-Megapixel Medical-Grade CMOS Image Sensor with Nyxel® Technology for Single-Use and Reusable Endoscopes

OMNIVISION's next-generation OH08B CMOS image sensor is the first 8-megapixel (MP) resolution sensor for single-use and reusable endoscopes, along with the OH08A. Targeted at endoscopes with a 10-12 mm outer diameter, such as gastroscopes, duodenoscopes, amnioscopes, laparoscopes and colonoscopes, the OH08B delivers high image quality, up to 4K2K resolution at 60 fps, greatly improving the doctor's ability to visualize the human anatomy during these important procedures.

Additionally, the OH08B is the first medical-grade image sensor to use OMNIVISION's award-winning Nyxel® near-infrared (NIR) technology, bringing revolutionary imaging capabilities beyond the visible spectrum to the medical industry. The sensor offers better performance in color and IR sensitivity, enabling doctors to see sharper video during NIR, fluorescence, chromoendoscopy and virtual endoscopy procedures. Also, higher sensitivity results in less illumination, thus reducing the heat at the tip of the endoscope.

The OH08B has a 1/1.8-inch optical format and uses a larger 2.0 µm PureCel® pixel in a 8.9 mm x 6.3 mm package. The sensor features OMNIVISION's Nyxel® technology, providing 3x quantum efficiency (QE) improvement at both the 850 nm and 940 nm NIR wavelengths. The excellent QE also allows the use of lower-power IR illumination, resulting in significantly reduced chip-on-tip power consumption.

Other key features of the OH08B include a 11-degree chief ray angle, enabling the use of lenses with large field-of-view and short focus distance, pulse width modulation output LED drivers, and 4-lane MIPI output with RAW data. This sensor is stereo ready with frame synchronization to support a host of depth perception applications.

The OH08B is autoclavable for reusable endoscope sterilization.

Applications

- Medical endoscopes
- Medical and dental equipment

Features

- **Active array size:** 3840 x 2160
- **Maximum image transfer rate:**
  - 3840 x 2160: 60 fps
- **Power supply:**
  - Core: 1.2V
  - Analog: 2.8V
  - I/O: 1.8V
- **Output interfaces:** Up to 4-lane MIPI/ LVDS serial output interface (supports maximum speed up to 1500 Mbps/lane)
- **Output formats:** 10/12-bit RAW RGB
- **Lens size:** 1/1.8"
- **Pixel size:** 2.0 µm x 2.0 µm

Version 1.0, August 2026

OMNIVISION®

4275 Burton Drive
Santa Clara, CA 95054
USA

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