

Optoelectronic components & modules

Explore our wide range of optoelectronic solutions designed to address the critical needs of the medical industry for endoscopy.

Endoscopes are used to inspect the interior of a hollow organ or cavity of the body or to perform diagnostic and therapeutic measures. Inserted into the body, these flexible or rigid tubes carry an image sensor, an optical lens and a light source, enabling visibility into inaccessible sites of the patient's body.

Hamamatsu Photonics' **high quality** and **reliable** optoelectronic components and modules are designed to be integrated into these critical instruments, ensuring safe and long-lasting usage. For decades, we have been **working with medical equipment manufacturers** to provide the best in optical technology, often customized to fit their specific application.

Spectroscopy Modules

Mini-spectrometers

Combining image sensing, optical systems and MEMS technology, our miniature portable spectrometers coupled with endoscopes offer the possibility of real-time spectral measurement within the body.

FEATURES

- Spectral response range: UV to NIR
- High sensitivity & high resolution (TM, TG and TF series only)
- Wide dynamic range (TM and Micro series)

Image Sensors

CCD & CMOS Sensors

Hamamatsu Photonics offers a wide lineup of image sensors for different wavelengths. CMOS sensors are characterized by low-power consumption and generally lower acquisition costs, and CCD sensors with high-light sensitivity and a production of images with low noise.

FEATURES

- Spectral range: 200-1100 nm
- A wide range of pixel sizes
- High-speed readout

Light Sources

Xenon Lamps

Xenon lamps emit high luminance and high-color temperature at a continuous spectrum, ranging from UV to visible through to infrared. The light beam is easy to focus into large and small light guides.

FEATURES

- Spectral distribution: UV to infrared
- High stability
- Guaranteed long life

Laser-Driven Light Source (LDLS™)

This patented LDLS technology produces extremely small, high brightness plasma. It delivers the ultimate light-collection efficiency over a broad spectral range, from the deepest UV, into visible, through to NIR.

FEATURES

- High brightness/small spot: 500-100 μm
- Broad wavelength range: 350-1600 nm
- Ease of integration: plug and play

Check out our website below for more options or contact our technical experts to discuss your specific application:

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