

[Image sensor module]

# InGaAs linear image sensor modules C16091 series

NEW

The linear image sensor modules, C16091 series, consist of a driver circuit, temperature controller and high-speed communication controller, and it can drive InGaAs linear image sensors. Various settings can be configured by a PC via the USB 3.1 Gen 1 interface.



## FEATURES

- For near-infrared multi-channel spectroscopy, non-destructive inspection and radiation thermometer (various options of wavelength ranges)
- Temperature controller included
- C-mount lens compatible
- Interface: USB 3.1 Gen 1
- Dimensions: 70 (W) × 145 (D) × 70 (H) mm
- High dynamic range
- Supply voltage: 12 V

## Core technology



### CORE DEVICE

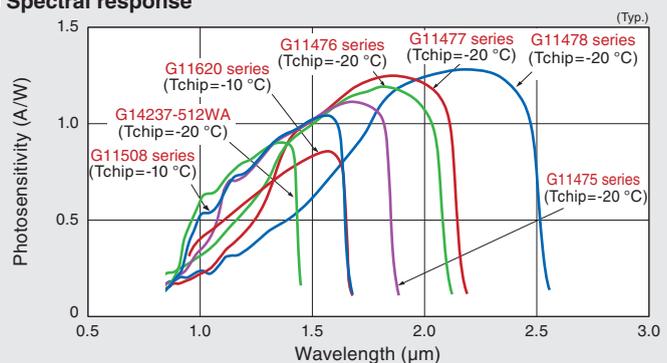
#### InGaAs linear image sensors

An InGaAs linear image sensor is designed for capturing near-infrared 1D images. It consists of a high quantum efficiency InGaAs photodiode array and a high gain and low noise ROIC (readout integrated circuit). The ROIC is equipped with a signal amplification circuit (analog) and a timing generator circuit (digital) on the same chip, enabling multi-functionality, high performance and low system cost. The temperature of the InGaAs photodiode can always be controlled by the built-in Peltier cooler and thermistor.

#### Lineup

C16091	Built-in sensor	C16091	Built-in sensor
-01	G11475-256WB	-08	G11508-256SA
-02	G11475-512WB	-09	G11508-512SA
-03	G11476-256WB	-10	G14237-512WA
-04	G11477-256WB	-11	G11620-256SA
-05	G11477-512WB	-12	G11620-512SA
-06	G11478-256WB	-13	G12230-512WB
-07	G11478-512WB		

#### Spectral response



## Application example

The transmitted or reflected light from an object is separated into each wavelength by a diffraction grating, and the amount of components is calculated from the wavelength distribution. To detect faint light, the sensor requires a long Integration time, very low noise, and a wide light-receiving surface.

