# DInGaAs Series Room-Temperature InGaAs Detectors, 800–2600 nm, Ø3 mm

Model DInGaAs Series · waveqvanta.com/products/dingaas-series-room-temperature-ingaas-detectors

Room-temperature InGaAs single-point detectors for near-infrared measurements from 0.8 to 2.6 µm.



DInGaAs series detectors are room-temperature InGaAs photodiodes for the near-infrared range from 0.8 µm to 2.6 µm. The DInGaAs1700-R03M and DInGaAs2600-R03M share the same construction with a 3 mm diameter active area, and differ in spectral range: 800–1700 nm and 800–2600 nm respectively.

## Key features

- Two models covering 800–1700 nm and 800–2600 nm
- Ø3 mm active area on both models
- Room-temperature operation, no cooling required
- Minimum peak responsivity of 0.9 A/W (DInGaAs1700-R03M) and 1.1 A/W (DInGaAs2600-R03M)
- Current output; an I-V transimpedance amplifier such as the ZAMP is recommended before an oscilloscope or lock-in amplifier
- Can be read directly by the DCS300PA data acquisition system, which has built-in amplification

## Specifications

| | |
|---|---|
| **Detector Type** | InGaAs photodiode, room temperature |
| **Active Area Diameter** | 3 mm |
| **Spectral Range** | 800–1700 nm or 800–2600 nm, depending on model |
| **Signal Output** | Current |

## Model overview

| Model | Spectral Range (nm) | Peak Responsivity, Min. (A/W) | Dark Current, Max. (nA) | D* (typ.) | NEP (typ.) | Shunt Resistance | Capacitance (pF) | Rise Time |
|---|---|---|---|---|---|---|---|---|
| DInGaAs1700-R03M | 800–1700 | 0.9 | 100 | $2.3\times10^{12}$ | $1.2\times10^{-13}$ | 1.5 MΩ | 800 | 100 ns |
| DInGaAs2600-R03M | 800–2600 | 1.1 | 1000 | $4.1\times10^{10}$ | $6.5\times10^{-12}$ | 320 Ω | 9000 | 1 µs |

## Typical applications

- Near-infrared spectroscopy with scanning monochromators
- NIR photoluminescence measurements
- Transmission and absorption measurements from 0.8 to 2.6 µm
- Lock-in detection of chopped NIR signals