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InGaAs Free-Space Balanced Photoreceiver, 800-1700nm



#90-640 InGaAs Free-Space Balanced Photoreceiver, 800-1700nm

Stock #90-640 **NEW** 1 In Stock

⊖ 1 ⊕ £2,980⁰⁰

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Volume Pricing

Qty 1+	£2,980.00 each
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General

Note:

Includes:
Lemo®3-pin connector
(3) Adapter SMA (male) to BNC (female)
Datasheet

Physical & Mechanical Properties

410 Weight (g):

Dimensions (mm):

Case Size: 80 x 80 x 30.5

Optical Properties

800 - 1700 nm **Spectral Range:**

Sensor

InGaAs PIN photodiode **Detector Type:**

Electrical

2×10^4 or 6×10^4 (switchable) **Transimpedance Gain (Ω):**

4.3×10^{-12} @880nm **Noise Equivalent Power NEP ($W/Hz^{1/2}$):**

100 MHz **Bandwidth (-3 db):**

± 1.0 V at 50 Ω load (for linear gain and low harmonic distortion), maximum ± 2.0 V at 50 Ω load **Output Signal:**

19×10^3 or 57×10^3 (switchable) **Conversion Gain (V/W):**

50 **Common Mode Rejection (dB):**

Hardware & Interface Connectivity

± 15 V (± 14.5 V ... ± 16.5 V) -90 / +120 mA **Power Requirement:**

Power Supply Required and Sold Separately.
USA: [#59-180](#)
Europe: [#59-180](#)
Japan: Not Available
Korea: Not Available
China: [#59-180](#) **Power Supply:**

Environmental & Durability Factors

0 to +60 **Operating Temperature ($^{\circ}C$):**

Regulatory Compliance

[Compliant](#) **RoHS 2015:**

[View](#) **Certificate of Conformance:**

Product Details

- Subtracts Two Photodiode Signals for Differential Detection
- Improved Signal to Noise Ratio (SNR) for Weak or Modulated Optical Signals
- High Common-Mode Noise Suppression for Improved Measurement Sensitivity and Accuracy
- Available in Si and InGaAs models for UV-VIS and NIR spectral ranges

Balanced Photoreceivers use true differential detection by subtracting the photocurrents from two matched photodiodes, producing a single electrical output proportional to the difference in optical power between the two inputs. This suppresses common-mode noise, such as laser intensity fluctuations, improving SNR and measurement sensitivity. Balanced Photoreceivers are engineered with a low-noise transimpedance amplifier, which ensures stable, consistent performance for precision optical measurements. Available in Si and InGaAs models for UV-VIS (320-1000nm) and NIR (800-1700nm) spectral ranges, these photoreceivers are ideal for coherent optical detection, interferometry, spectroscopy, and optical coherence tomography (OCT).

Note: Power supply sold separately. Please see specifications for more details.