

[See all 17 Products in Family](#)

SI Free-Space Balanced Photoreceiver, 320-1000nm



#90-639 SI Free-Space Balanced Photoreceiver, 320-1000nm

Stock #90-639 NEW **2 In Stock**

⊖ 1 ⊕ €3.500⁰⁰

ADD TO CART

Volume Pricing

Qty 1+	€3.500,00 each
Need More?	Request Quote

ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Note:

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

Physical & Mechanical Properties

Weight (g):

410

Case Size: 80 x 80 x 30.5

Dimensions (mm):

Optical Properties

320 - 1000 nm

Spectral Range:

Sensor

Si-PIN photodiode

Detector Type:

Electrical

2 x 10⁴ or 6 x 10⁴(switchable)

Transimpedance Gain (Ω):

7.4 x 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:

10.8 x 10³ or 32.4 x 10³(@ 850 nm 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 (°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.