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SI Free-Space Balanced Photoreceiver, 320-1000nm

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

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

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A$5,600.00

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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

Dimensions (mm):

Case Size: 80 x 80 x 30.5

Optical Properties

Spectral Range:
320 - 1000 nm

Sensor

Detector Type:
Si-PIN photodiode

Electrical

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

Noise Equivalent Power NEP (W/ $Hz^{1/2}$):
7.4×10^{-12} @880nm

Bandwidth (-3 db):
100 MHz

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

Conversion Gain (V/W):
10.8×10^3 or 32.4×10^3(@ 850 nm switchable)

Common Mode Rejection (dB):
50

Hardware & Interface Connectivity

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

Power Supply:
Power Supply Required and Sold Separately:
USA: **#59-180**
Europe: **#59-180**
Japan: Not Available
Korea: Not Available
China: **#59-180**

Environmental & Durability Factors

Operating Temperature (°C):
0 to +60

Regulatory Compliance

RoHS 2015:
Compliant

Certificate of Conformance:
View

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.

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