

SPIDER High Dynamic Range VIS-SWIR Photodetector



Stock **#26-740** 3 In Stock

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1

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A\$6,568^{.00}

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Note: This item requires accessories for use | [Learn More](#)

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General

Type:

Voltage Ouput

USB Output

Physical & Mechanical Properties

218

Weight (g):

101.5 x81 x28.5

Dimensions (mm):

Active Area (mm):	
Si - 2.4 x2.4 InGaAs - Ø1	
Optical Properties	
Spectral Response (nm):	
320 - 1700	
Peak Response Wavelength (nm):	
Si - 920 InGaAs - 1550	
Electrical	
Voltage Noise, Low Gain (V/Hz ^{1/2}):	
20 x 10 ⁻⁹	
Voltage Noise, High Gain (V/Hz ^{1/2}):	
680 x 10 ⁻⁹	
Transimpedance Gain (Ω):	
8 Selectable Levels - 1.5kΩ, 4.6kΩ, 14.4kΩ, 44.8kΩ, 142kΩ, 446kΩ, 1.4MΩ, 4.4MΩ	
Dark Current I _d (nA):	
Si - 0.13 InGaAs - 1	
Frequency (kHz):	
Min - 29kHz Max - 56kHz	
Sampling Rate (kSPS):	
8 Predefined Rates: 120, 100, 80, 64, 32, 16, 10, 5, 2.5, 1, 0.5	
Transimpedance Gain (dBΩ):	
8 Selectable Levels - 64, 73, 83, 93, 103, 113, 123, 133	
Hardware & Interface Connectivity	
Connector:	
USB	
Output Voltage (V):	
0-10 on BNC	
Power Supply:	
Included 12V Power Supply or Power Over USB	
GPIOs:	
3	
Environmental & Durability Factors	
Operating Temperature (°C):	
+10 to +40	
Storage Temperature (°C):	
-20 to +70	
Regulatory Compliance	
Certificate of Conformance:	
View	

Product Details

- Two Color Si-InGaAs Chip for 320 – 1700nm Wavelength Range
- Embedded 24-Bit Analog-to-Digital Converter
- Digital USB Connection and Two Analog BNC Connections

NIREOS SPIDER High-Dynamic Range VIS-SWIR Photodetector is a broadband, amplified Si-InGaAs photodetector that allows for analog or digital connection and enables rapid development of high-performance sensing and spectroscopy solutions suitable in industrial, laboratory, and research environments. Featuring a two-color Si and InGaAs chip, this photodetector allows straightforward beam alignment and achieves a wide spectral response ranging from 320 - 1700nm. With an embedded 24-bit analog-to-digital converter (ADC), the Si and InGaAs analog outputs are simultaneously digitized with adjustable sampling rates from 0.5 to 120kSPS via USB connection. NIREOS SPIDER High-Dynamic Range VIS-SWIR Photodetector's Si and InGaAs channels are both independently amplified with analog bandwidths up to 56kHz, picowatt sensitivity, and 8 switchable transimpedance gain options ranging from 1.5kΩ to 4.4MΩ. This photodetector comes with a user friendly, plug-and-play software for ease of setup, and features DLLs allowing for programming using .NET based languages such as C++, C#, LabView, Python, and MATLAB.

Technical Information



