



Datasheet

LCA-S-400K-IN

Low Noise 400 kHz Photoreceiver with InGaAs PIN Photodiode



The photoreceiver will be delivered without post holder and post

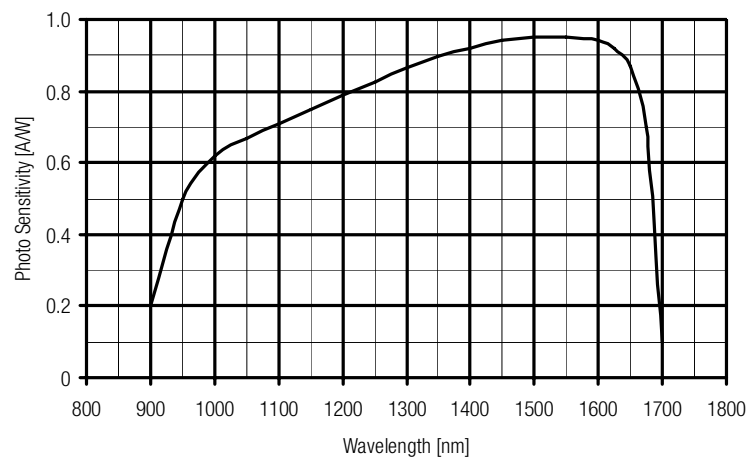
<p>Features</p>	<ul style="list-style-type: none"> • InGaAs PIN Detector, 0.5 mm Active Diameter • Spectral Range 900 ... 1700 nm • Amplifier Transimpedance (Gain) 1.0×10^7 V/A • Max. Conversion Gain 9.5×10^6 V/W @ 1550 nm • Bandwidth DC ... 400 kHz 		
<p>Applications</p>	<ul style="list-style-type: none"> • Spectroscopy • General Purpose Opto-Electronic Measurements • Optical Front-End for Oscilloscopes, A/D Converters and Lock-In Amplifiers 		
<p>Specifications</p>	<p><i>Test Conditions</i></p>	<p><i>V_s = ± 15 V, T_a = 25°C</i></p>	
<p>Gain</p>	<p>Transimpedance Max. Conversion Gain</p>	<p>1.0×10^7 V/A 9.5×10^6 V/W</p>	<p>(@ ≥ 1 MΩ load) (@ 1550 nm)</p>
<p>Frequency Response</p>	<p>Lower Cut-Off Frequency Upper Cut-Off Frequency (- 3 dB) Rise/Fall Time (10% - 90%) Gain Flatness</p>	<p>DC 400 kHz 1 μs ± 0.5 dB</p>	
<p>Detector</p>	<p>Detector Material Active Area Spectral Response</p>	<p>InGaAs PIN photodiode Ø 0.5 mm 900 ... 1700 nm</p>	
<p>Input</p>	<p>Input Offset Compensation Range ± 300 nA, adjustable by offset trimpot Optical Saturation Power 1 μW (for linear amplification @ 1550 nm) Min. NEP 75 fW/√Hz (@ 1550 nm, 10 kHz)</p>		

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Specifications (continued)

Output	Output Voltage Range	± 10 V	(@ ≥ 1 M Ω load)
	Max. Output Current	± 30 mA	
	Output Impedance	50 Ω	(designed for ≥ 1 M Ω load)
	Output Noise	ca. 12 mV peak-peak or 2 mV rms	(@ ≥ 1 M Ω load, no signal on detector)
Power Supply	Supply Voltage	± 15 V	
	Supply Current	± 40 mA typ.	(depends on operating conditions, recommended power supply capability minimum ± 150 mA)
Case	Weight	210 g (0.5 lbs)	
	Material	AlMg4.5Mn, nickel-plated	
Temperature Range	Storage Temperature	- 40 ... + 100 °C	
	Operating Temperature	0 ... + 60 °C	
Absolute Maximum Ratings	Optical Input Power	10 mW	
	Power Supply Voltage	± 22 V	

Spectral Response

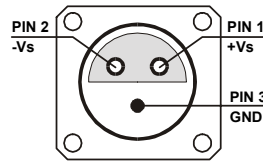


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Connectors	Input	25 mm round flange for free space applications (fiber optic input available as customized unit)
	Output	BNC
	Power Supply	LEMO series 1S, 3-pin fixed socket Pin 1: + 15V Pin 2: - 15V Pin 3: GND



Available Models	LCA-S-400K-IN-FS LCA-S	free space input customized version available on request
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Dimensions	<p style="text-align: center;">all measures in mm unless otherwise noted DZ-HCA-S-FS_R2</p>	
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