Datasheet LCA-S-400K-IN

Low Noise 400 kHz Photoreceiver with InGaAs PIN Photodiode



The photoreceiver will be delivered without post holder and post.

Features	 InGaAs PIN Detector, 0.5 mm Active Diameter Spectral Range 900 1700 nm Amplifier Transimpedance (Gain) 1.0 x 10⁷ V/A Max. Conversion Gain 9.5 x 10⁶ V/W @ 1550 nm Bandwidth DC 400 kHz 		
Applications	 Spectroscopy General Purpose Opto-Electronic Measurements Optical Front-End for Oscilloscopes, A/D Converters and Lock-In Amplifiers 		
Specifications	Test Conditions	$Vs = \pm 15 V$, $Ta = 25$	°C
Gain	Transimpedance Max. Conversion Gain	1.0 x 10 ⁷ V/A 9.5 x 10 ⁶ V/W	$(@ \ge 1 \text{ M}\Omega \text{ load})$ (@ 1550 nm)
Frequency Response	Lower Cut-Off Frequency Upper Cut-Off Frequency (- 3 dB) Rise/Fall Time (10% - 90%) Gain Flatness	DC 400 kHz 1 μs ± 0.5 dB	
Detector	Detector Material Active Area Spectral Response	InGaAs PIN photodiode Ø 0.5 mm 900 1700 nm	•
Input	Input Offset Compensation Range Optical Saturation Power Min. NEP	e ± 300 nA, adjustable by offset trimpot 1 μW (for linear amplification, @ 1550 nm) 75 fW/√Hz (@ 1550 nm, 10 kHz)	

SOPHISTICATED TOOLS FOR SIGNAL RECOVERY

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Specifications (continued)				
Output	Output Voltage Range Max. Output Current Output Impedance Output Noise	\pm 10 V		
Power Supply	Supply Voltage \pm 15 V Supply Current \pm 40 mA typ. (depends on operating conditions, recommended power supply capability minimum \pm 150 mA)			
Case	Weight Material	210 g (0.5 lbs) AlMg4.5Mn, nickel-plated		
Temperature Range	Storage Temperature Operating Temperature	- 40 + 100 °C 0 + 60 °C		
Absolute Maximum Ratings	Optical Input Power Power Supply Voltage	10 mW ± 22 V		
Spectral Response	0.8 O.6 O.2 O.2 O.2 O.2 O.2 O.2 O.2 O.2 O.2 O.3 O.4 O.2 O.3 O.3 O.4 O.2 O.3	1100 1200 1300 1400 1500 1600 1700 1800 Wavelength [nm]		
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 PIN 2 PIN 3 PIN 3 PIN 3			

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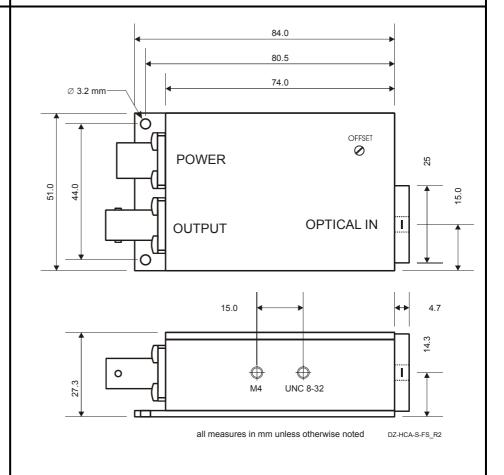
LCA-S-400K-IN

Low Noise 400 kHz Photoreceiver with InGaAs PIN Photodiode

Available Models

LCA-S-400K-IN-FS free space input
LCA-S customized version available on request

Dimensions



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