

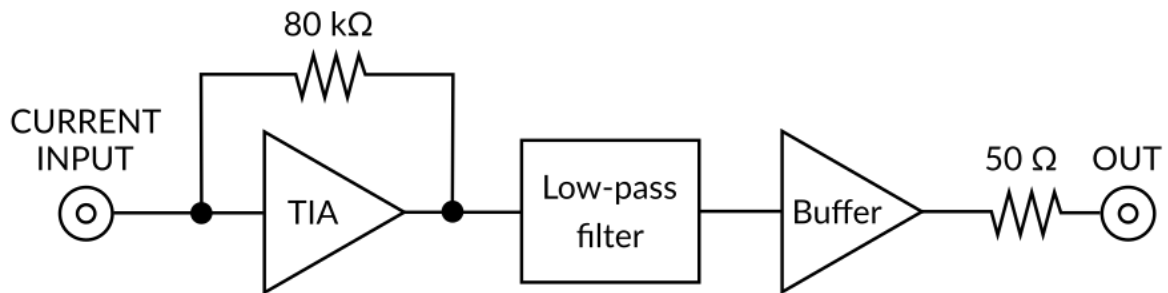
Koheron PD10TIA is a transimpedance amplifier (TIA) with a bandwidth of 1 MHz and an input-referred current noise of 0.8 pA/√Hz. It is compatible with photodiodes with up to 2 nF input capacitance.

Specifications

PD10TIA-80-DC

Input	
Input current	-45 μ A to 45 μ A
Coupling	DC
Maximum input capacitance	2 nF
Input connector	SMA
Amplifier	
Transimpedance gain	80 kV/A
Small signal bandwidth 3 dB, $C_{in} = 10$ pF	0 Hz to 800 kHz
Input current noise density 1 MHz, $C_{in} = 10$ pF	0.8 pA/√Hz
Output voltage range	-3.6 V to 3.6 V
Output impedance	50 Ω
Output connector	SMA
Power supplies	
Positive supply voltage	5.5 V to 9 V
Negative supply voltage	-9 V to -5.5 V
Other	
Outside dimensions	68 mm x 38 mm x 14 mm
Mechanical details	Compatible with M6 metric breadboards (25 mm spacing)
Operating temperature	0 °C to 50 °C
Weight	14 g

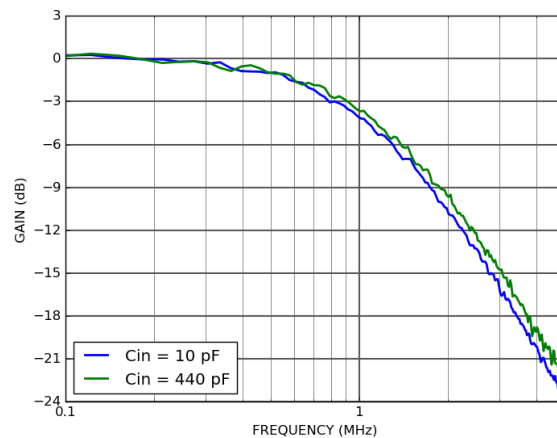
Functional diagram



PD10TIA-80-DC functional diagram

Characterization

Frequency response

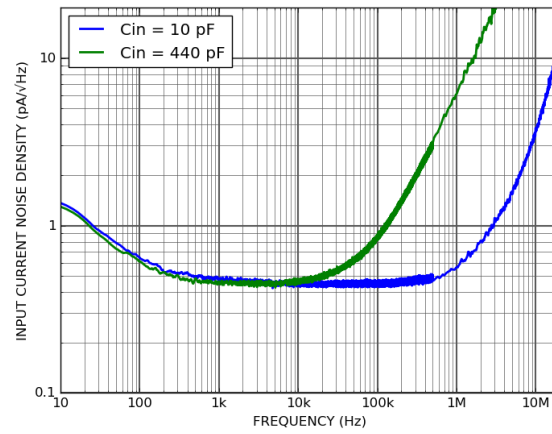


PD10TIA-80-DC frequency response

Input current noise density

The input-referred current noise of the PD10TIA transimpedance amplifier depends on the input capacitance. For best performance, one should select a photodiode with low parasitic capacitance and use cables as short as possible, as explained in the [user guide](#).

Input current noise density for input capacitances of 10 pF and 440 pF:



PD10TIA-80-DC input current noise density

Ordering codes

PRODUCT NUMBER	ATTRIBUTE
PD10TIA-80-DC	None