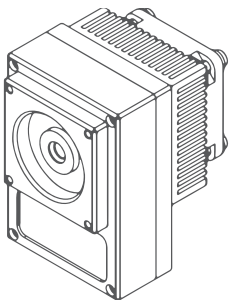


AIP SERIES

“All-in-one”
transimpedance
amplifiers



FEATURES

- Compatible with VIGO TE-cooled IR detectors in the TO8 package
- Integrated TEC controller and fan
- M4 mounting hole
- Frequency bandwidth: up to 250 MHz
- Single power supply
- DC monitor
- Designed for effective heat dissipation
- Compatible with optical accessories
- Cost-effective OEM version available

INCLUDED ACCESSORIES

- 2 pcs of SMA-BNC cable
- 1 pc of AC adaptor

DEDICATED ACCESSORIES

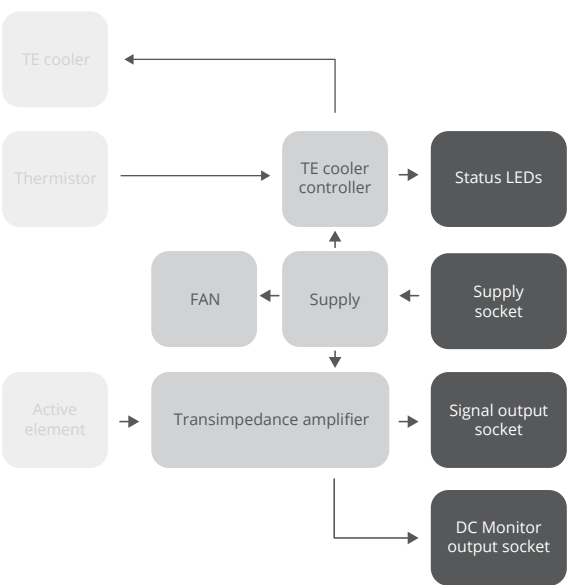
- OTA optical threaded adapter (p. 155)
- DRB-2 base mounting system (p. 152)

CODE DESCRIPTION

Type	f_{lo} , Hz	f_{hi} , Hz	Version
AIP	DC	100k	S ¹⁾ (with the package)
	10	1M	
	100	10M	
	1k	100M	
	10k	250M	

¹⁾ OEM version available upon request

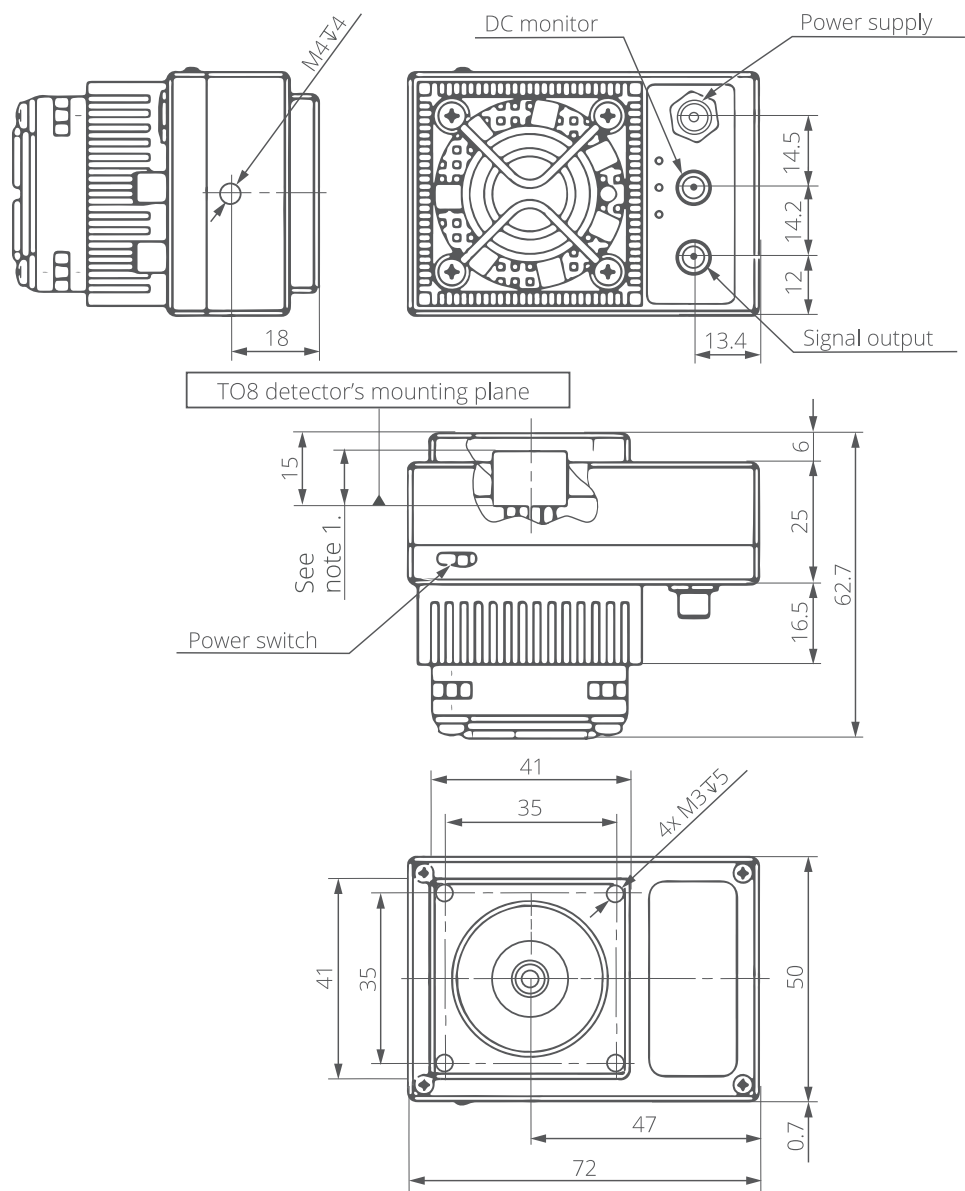
SCHEMATIC DIAGRAM



SPECIFICATION ($T_{\text{amb}} = 293 \text{ K}$)

Parameter	Conditions/remarks	Value	Unit
Low cut-off frequency, f_{lo}		DC, 10, 100, 1k, 10k	Hz
High cut-off frequency, f_{hi}		100k, 1M, 10M, 100M, 250M	Hz
Transimpedance, K_i	Fixed	up to 200	kV/A
Output impedance, R_{out}		50	Ω
Output voltage swing, V_{out}	$f_{\text{hi}} \leq 1 \text{ MHz}$, $R_{\text{load}} = 1 \text{ M}\Omega$	± 1.8	V
	$f_{\text{hi}} > 1 \text{ MHz}$, $R_{\text{load}} = 50 \Omega$	± 0.7	V
Output voltage offset, V_{off}		max. ± 20	mV
Power supply voltage, V_{sup}	With 2TE and 3TE cooled detectors	5	V
	With 4TE cooled detectors	12	
Power supply current, I_{sup}	With 2TE cooled detectors	max. 1.2	A
	With 3TE cooled detectors	max. 0.5	
	With 4TE cooled detectors	max. 0.45	
Weight		235	g

MECHANICAL LAYOUT (Unit: mm)



Notes:
1. TO8 detector dimensions in the TO8 package technical drawings (p. 203, 204, 207, 209, 210)

ABSOLUTE MAXIMUM RATINGS

Parameter	Test conditions/remarks	Value	Unit
Ambient operating temperature, T_{amb}		10 to 30	°C
Storage temperature, T_{stg}		-20 to 50	°C
Humidity	No dew condensation	10 to 90	%

Stresses beyond those listed under Absolute maximum ratings may cause permanent damage to the device. Constant or repeated exposure to absolute maximum rating conditions may affect the quality and reliability of the device.