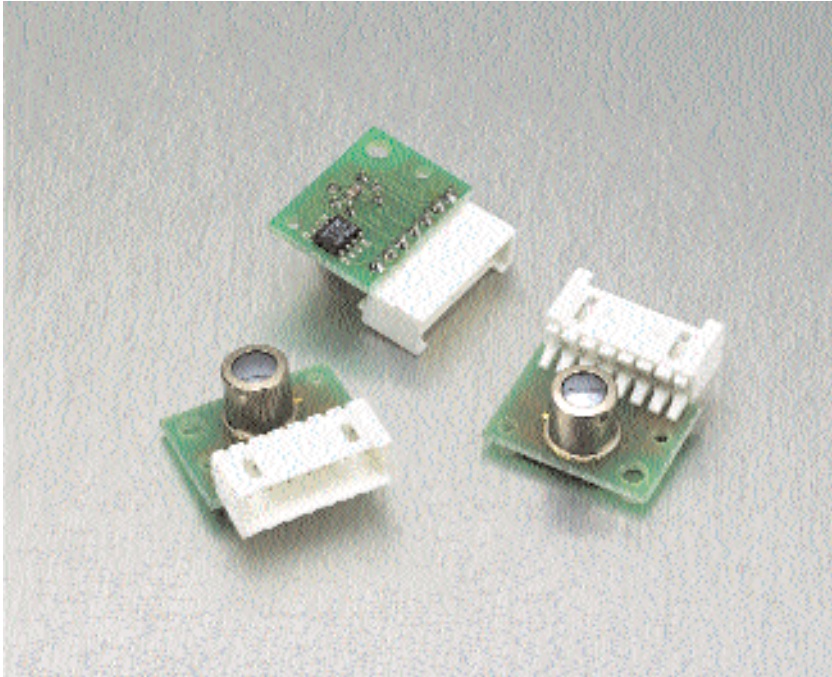


TPLM 086 L5.5 - Linear Array Module

Thermopile Linear Array with 8 Elements



Description

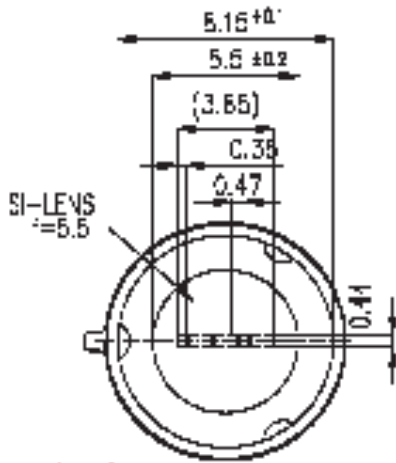
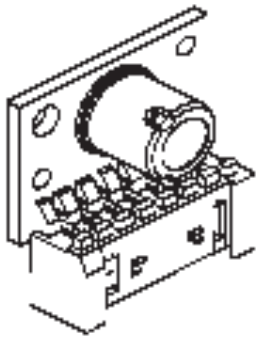
The integrated ThermoPile Array Sensor consists of a 8-element thermopile chip connected to a multiplexing signal conditioning circuit. The sensor is further equipped with an internal temperature reference for correct target temperature determination. All analog signals, including the ambient temperature, are given out in a fixed frame, containing the information in one serial stream. Lenses for different field of views are available on demand. The sensor in a TO-5 housing is mounted on a small PCB with calibration data for this specific sensor stored in a E²PROM.

Features

- Integrated Optics, Multiplexer, Amplifier and Reference
- Plug-in Module with Stored Calibration Data
- Designed for Industrial Temperature Measurements

TPLM 086 L5.5 - Linear Array Module Thermopile Linear Array with 8 Elements

Figure 1. Package Drawing



Dimensions in mm

Figure 2. Output Sequence

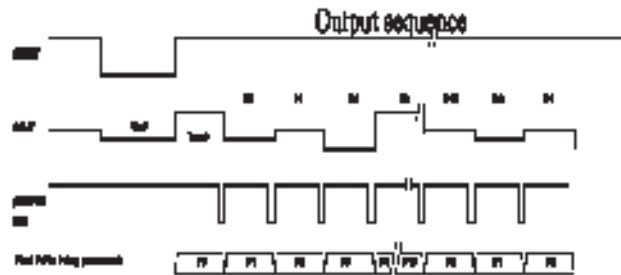
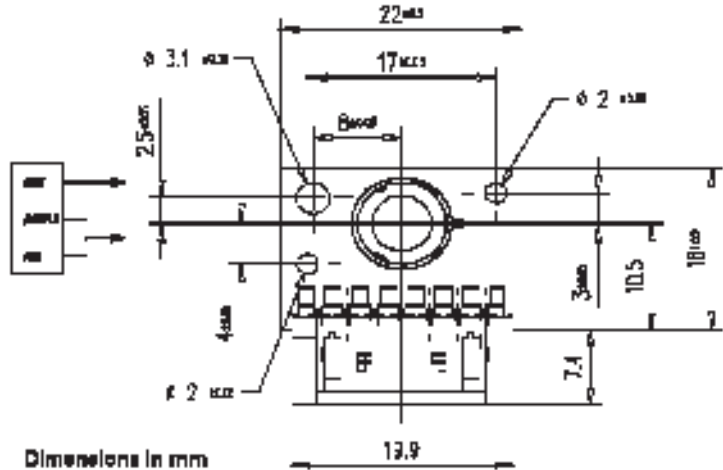


Figure 3. Top View Package Dimension

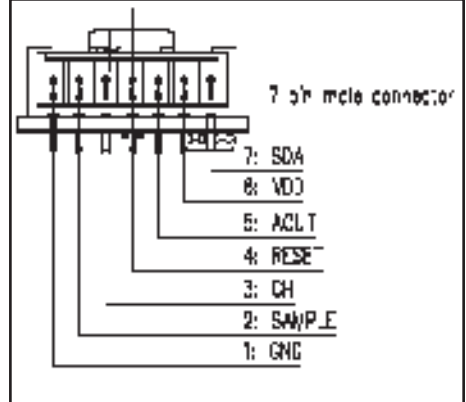


Dimensions in mm

Table 1. TPLM 086 L5.5

Parameter	Typical	Units	Condition
Field of view	41	°	f/1, f = 5.5 mm
Output voltage	0.95	V	T _{BB} = 80°, T _{amb} = 20°
Output noise	0.4	mV/√Hz	0.5 ... 20 Hz
Object temperature	-20 to 100	°C	
Operating voltage V _{DD}	5	V	
Operating current	1	mA	
Zero signal offset V _{ref}	V _{DD} /2	V	
Output resistance	200	Ω	
Power up time	0.3	s	
Sample frequency	3	kHz	
Storage temperature	-40 to 100	°C	
Operating temperature	-20 to 100	°C	
Temperature ref slope S _T	10	mV/K	V _{Temp} = S _T T _{amp} /K + V ₀
Temperature ref offset V ₀	0	mV	

Figure 4. Pinout Diagram



For more information e-mail us at opto@perkinelmer.com or visit our website at www.perkinelmer.com/optoelectronics

All values are nominal; specifications subject to change without notice.

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