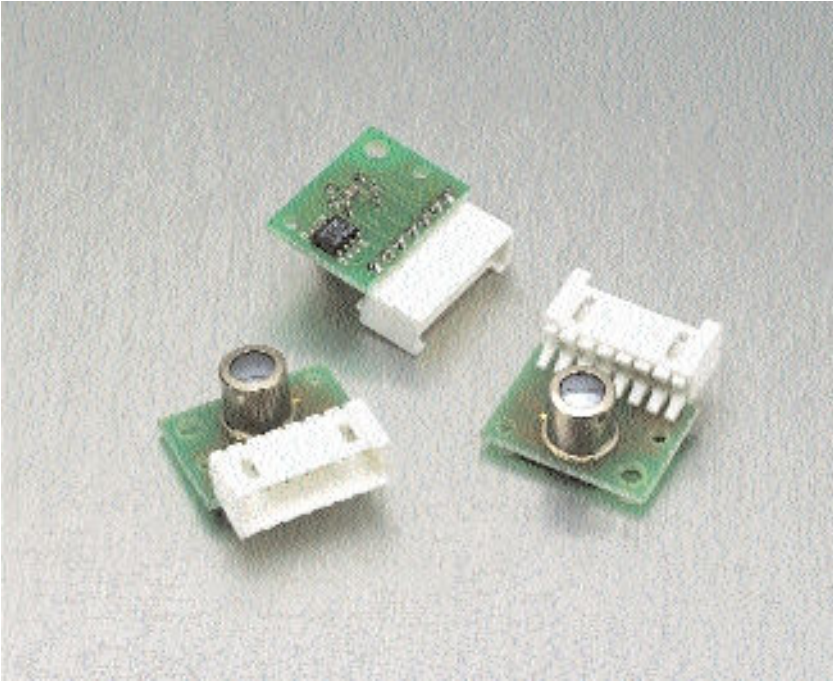


TPLM 086 L5.5 - Linear Array Module

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

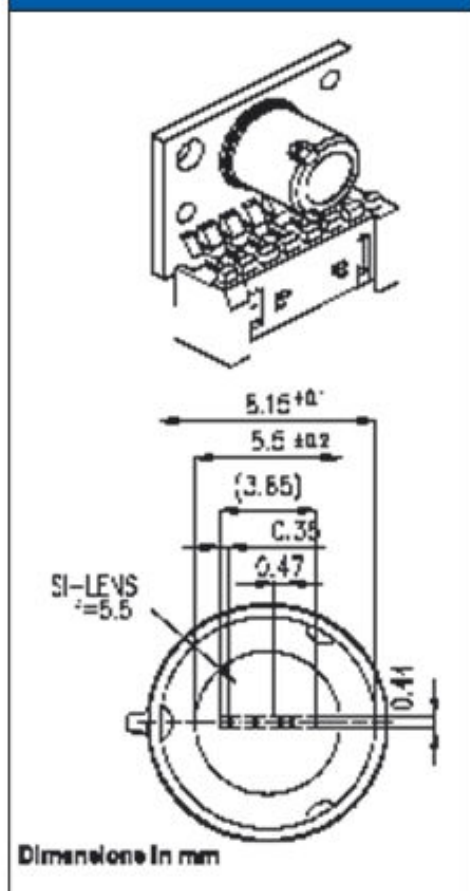


Figure 2. Output Sequence

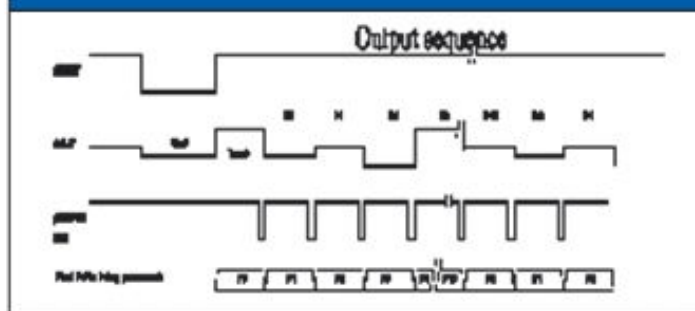
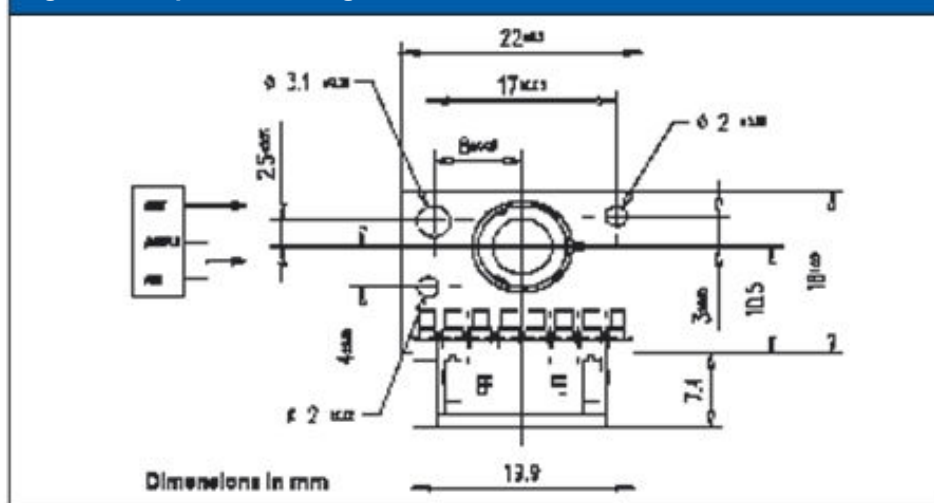
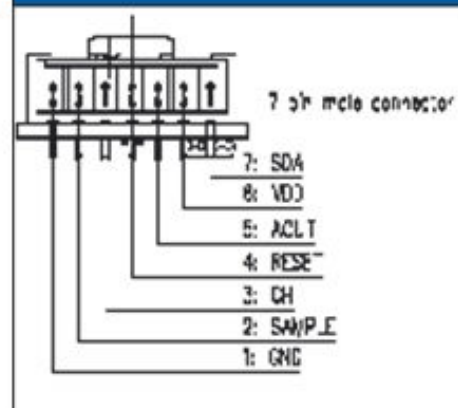


Figure 3. Top View Package Dimension

**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 email us at generalinquiries@excelitas.com or visit our website at excelitas.com
All values are nominal; specifications subject to change without notice.

North America:
Excelitas Technologies
16800 Trans-Canada Highway
Kirkland, Quebec J7V 8P7 Canada
Toll Free: (877) 734-OPTO (6786)
Phone: +1-450-424-3300
Fax: +1-450-424-3411

Europe:
Excelitas Technologies
Wenzel-Jaksch-Str. 31
D-65199 Wiesbaden, Germany
Phone: +49-611-492-430
Fax: +49-611-492-165

Asia:
Excelitas Technologies
47 Ayer Rajah Crescent #06-12
Singapore 139947
Phone: +65-6770-4366
Fax: +65-6775-1008

EXCELITAS
TECHNOLOGIES