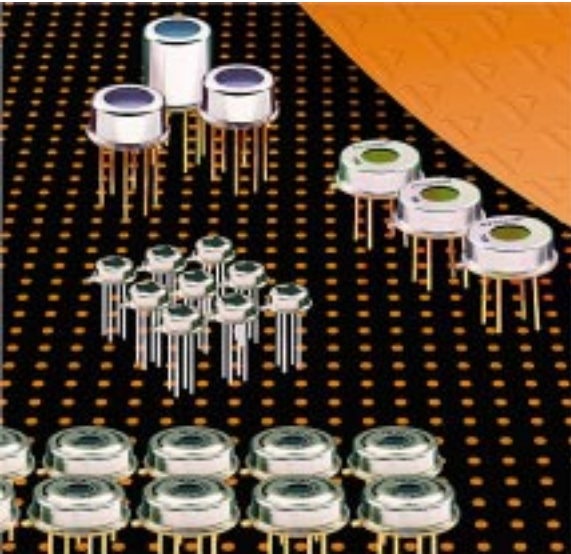


Thermopile Infrared Detectors

Linear Array Module TPLM 086 L5.5



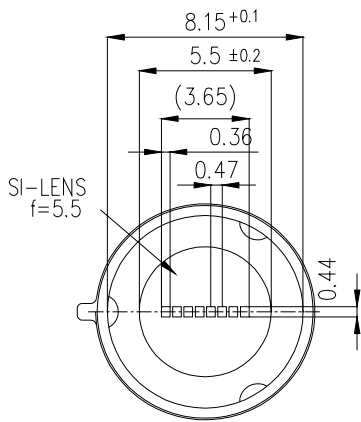
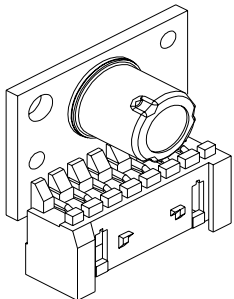
Thermopile Linear Array with 8 Elements

Integrated Optics, Multiplexer, Amplifier and Reference

Plug-In Module with Stored Calibration Data

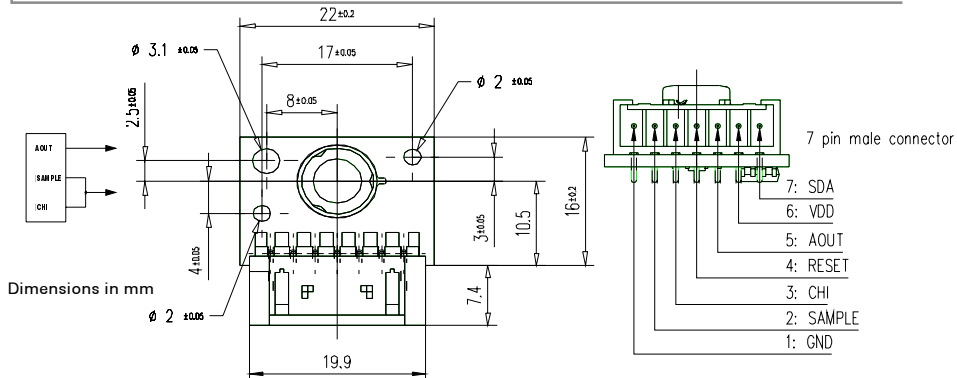
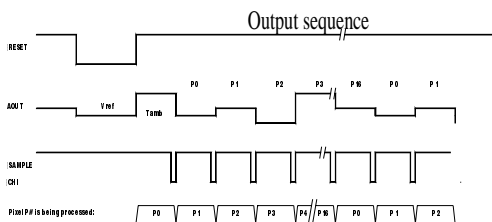
Designed for Industrial Temperature Measurements

The integrated **ThermoPile Linear Array Sensor** consists of a 8-elements thermopile chip connected to a multiplexing signal conditioning circuit. The sensor is further equipped with an internal temperature sensor for correct target temperature determination. All analogue 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 an E²PROM.



Parameters	TPLM 086L 5.5		condition
	typical	units	
Field of View	41	°	f/1, f = 5.5mm
Output Voltage	0.95	V	T _{BB} = 80°, T _{amb} = 20°
Output Noise	0.4	mV/√Hz	0.5..20Hz
Object Temp.	-20	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	100	°C non permanent
Operating Temperature	-20	100	°C
Temperature Ref Slope S_T	10	mV/K	V _{Temp} = S _T T _{amb} / K + V ₀
Temperature Ref Offset V₀	0	mV	

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