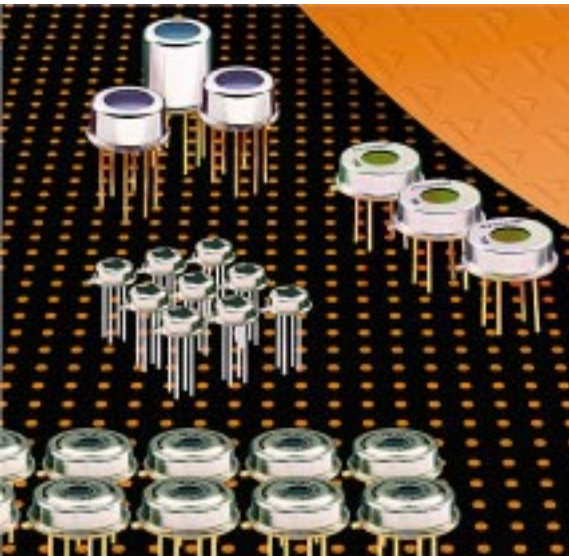


# Linear Array Module TPLM 086 L5.5



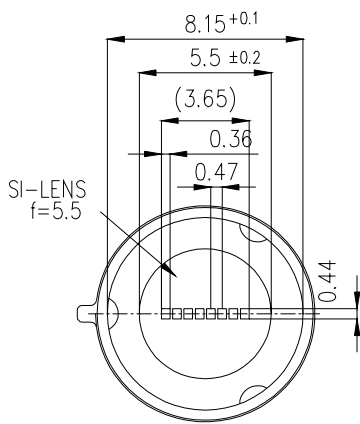
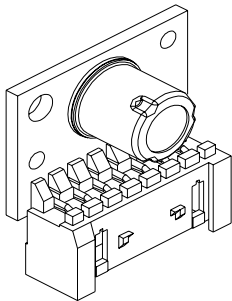
**Thermopile Linear Array with 8 Elements**

**Integrated Optics, Multiplexer, Amplifier and Reference**

**Plug-In Module with Stored Calibration Data**

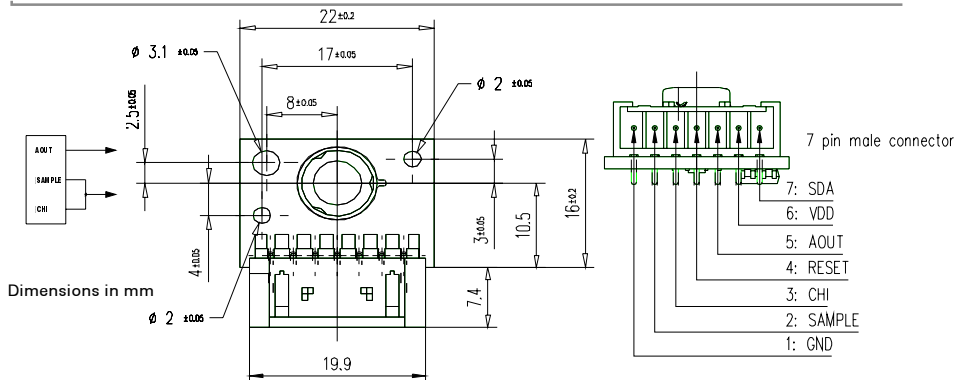
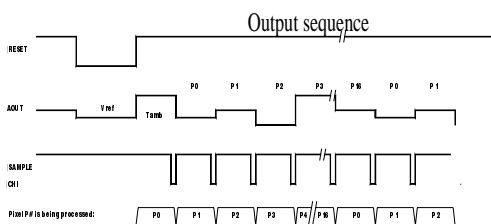
**Designed for Industrial Temperature Measurements**

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 E<sup>2</sup>PROM.



Parameters	TPLM 086L 5.5		condition
	typical	units	
<b>Field of View</b>	41	°	f/1, f = 5.5mm
<b>Output Voltage</b>	0.95	V	T <sub>BB</sub> = 80°, T <sub>amb</sub> = 20°
<b>Output Noise</b>	0.4	mV/√Hz	0.5..20Hz
<b>Object Temp.</b>	-20	100	°C
<b>Operating Voltage V<sub>DD</sub></b>	5	V	
<b>Operating Current</b>	1	mA	
<b>Zero Signal Offset V<sub>ref</sub></b>	V <sub>DD</sub> /2	V	
<b>Output Resistance</b>	200	Ω	
<b>Power up Time</b>	0.3	s	
<b>Sample Frequency</b>	3	kHz	
<b>Storage Temperature</b>	-40	100	°C non permanent
<b>Operating Temperature</b>	-20	100	°C
<b>Temperature Ref Slope S<sub>T</sub></b>	10	mV/K	V <sub>Temp</sub> = S <sub>T</sub> T <sub>amb</sub> / K + V <sub>0</sub>
<b>Temperature Ref Offset V<sub>0</sub></b>	0	mV	

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