



Thermopile Line Array

For Non-Contact Temperature Sensing

TPiL 8T 2246 L3.9, TPiL 16T 3x46 L3.9, TPL 32C 3343 L4.7 Line Arrays

Target Applications

- Non-Contact Temperature Measurement
- Household Appliances: Microwave Ovens
- Printer/Copier Applications

Features and Benefits

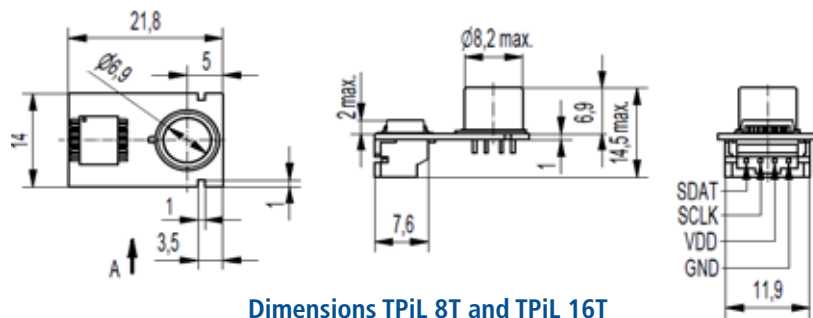
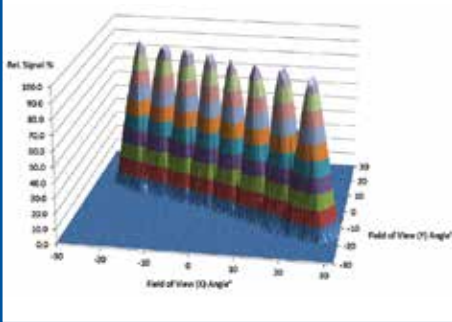
- Digital SMBus
- Factory Calibration
- Ambient Temperature Output
- Noise Reduction Filter

Product Description

The Excelitas Thermopile Line Array family includes three major versions of modules for non-contact temperature measurement applications. All modules consist of an array sensor with multiplexed output signal which is transferred into a calibrated Signal by a microprocessor located on the modules board. The microprocessor also acts as the SMBus interface. All modules are supplied with connector.

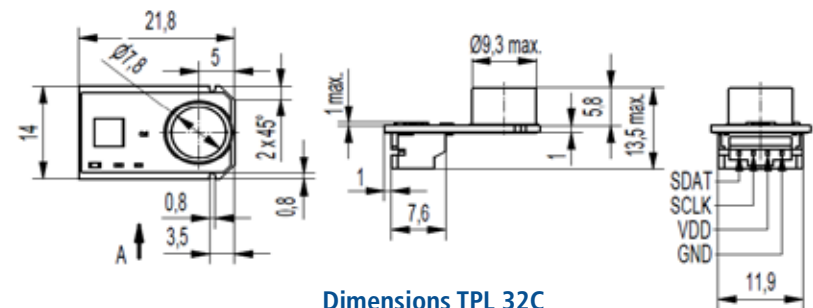
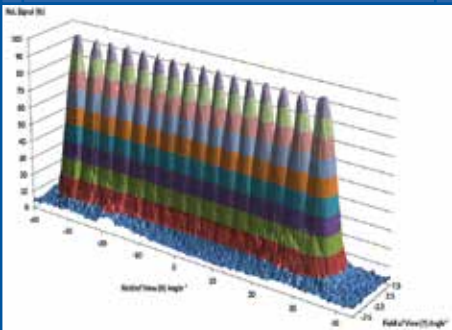
The offerings include an 8-Element Line Array and a 16-Element Line Array for either 60°C max temperature or 120°C max target temperature and a 32-Element Line Array for max 60°C target temperatures. Customized versions are available upon request.

Field of View TPiL 8T 2246 L3.9



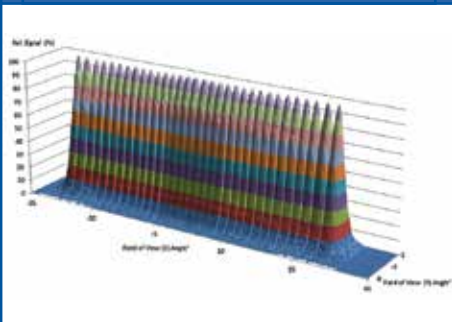
Dimensions TPiL 8T and TPiL 16T

Field of View TPiL 16T 3446 L3.9



Dimensions TPL 32C

Field of View TPL 32C 3343 L4.7



TPiL 8T 2246 L3.9, TPiL 16T 3x46 L3.9, TPL 32C 3343 L4.7

Parameter	Symbol	TPiL 8T 2246 L3.9	TPiL 16T 3446 L3.9	TPiL 16T 3546 L3.9	TPL 32C 3343 L4.7	Unit	Remark
Sensing Temp. Range		0...60	0...60	0...60	0...60	°C	only A60 Version
Sensing Temp. Range			0...120			°C	only A120 Version
Object Temp. Accuracy		+/- 1,5	+/- 1,5	+/- 1,5	+/- 1,5	°C	
Operating Temp. Range		-25...+100	-25...+100	-25...+100	-25...+100	°C	
Storage Temp. Range		-40...+100	-40...+100	-40...+100	-40...+100	°C	
Supply Voltage	V _{DD}	4,5...5,5	4,5...5,5	4,5...5,5	4,5...5,5	V	
Supply Current	I _{DD}	5	5	5	5	mA	typical
Field of View x direction	FoV _x	50	71	70	59	Degree	peak to peak
Field of View y direction	FoV _y	4	4	4	3	Degree	50% Line
Signal refresh time	t _{refresh}	250	400	400	380	ms	
Digital Interface		SMBus	SMBus	SMBus	SMBus		