



Picture of a face profile

HTPA120x84d

Infrared Thermopile Array Sensors for Remote Temperature Measurement and Imaging Applications

The HTPA120x84d is the result of consequent further development and the bigger brother of the 80x64d infrared array sensor. It features a resolution of 120x84 pixel inside the same TO-8 housing with the same mechanical and electrical dimensions as the 80x64d.

Due to the digital SPI interface, only 6 pins are needed. It has a built-in EEPROM to store all calibration data and a 16-bit ADC. The speed can be set internally via the sensor clock and ADC-resolution between 16 Hz (highest resolution) and 28 Hz (lower resolution).

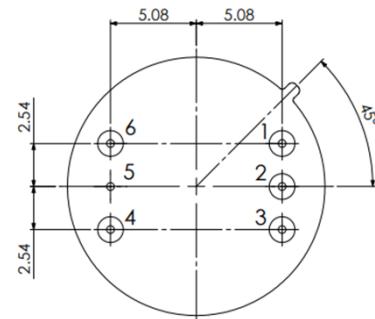
Available Optics



Optic	L3.9	L4.8	L10	L33*
FoV [°]	120 x 77	90 x 60	41 x 29	12 x 9
Length of cap [mm]	15.4	16.7	28.3	46
Diameter of cap [mm]	20	20	23	37
F-number	0.8	0.8	0.7	1.05

* Only on request

Dimensions – Bottom View



Characteristics

Parameter	Value	Tolerance	Unit
Supply voltage (DC)	3.3	+0.3/-0.0	V
Current consumption	30	+/-5.0	mA
Clock frequency (Sensor)	10	\pm 5	MHz
Ambient temperature range	-20 to 85		°C
Object temperature range	-20 to >1000		°C
Framerate (full frame)	2 to 28		Hz
Framerate (sixth part of array)	12 to 168		Hz
NETD (best optics)	130		mK@1Hz*

* NETD for required framerate: $NETD@1Hz \times \sqrt{Framerate}$

Pin Configuration (SPI)

Pin	Function
1	MISO
2	MOIS
3	SCLK
4	VDD
5	VSS
6	EE_Enable