

(Picture shows a human head watching to the side, taken with the HTPA32x32dL5.0)



HTPA32x32d

Infrared Thermopile Array Sensor

The HTPA32x32d is an infrared array sensor with a resolution of 32x32 pixel in a TO39 housing. Due to the digital I²C interface only 4 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 up to 15 Hz (highest resolution) or up to 27 Hz (lower resolution).

Parameter	Value	Tolerance	Units
Supply voltage (DC)	3.3-3.6		V
Current consumption	5.5	± 1.0	mA
Clock frequency (Sensor)	5	± 3	MHz
Ambient temperature range	-20 to 85		°C
Object temperature range	-20 to >1000		°C
Framerate (full frame)	2 to 27		Hz
Framerate (quarter frame)	8 to 110		Hz
NETD (best optics)	160		mK@1Hz

Available Optics:



Optic	L1.6[Si]	L2.1[Si]	L3.6[Si]	L4.0[Ge]*	L5.0[Ge]*	L7.0[Si]	L5.0[Ge]**
FoV [°]	105	90	43	40	33	23	33
Length of cap [mm]	tbd	4.53	6.71	16.3	7.63	9.4	10.41
F-number	0.8	0.8	0.9	0.7	0.85	1.2	0.85

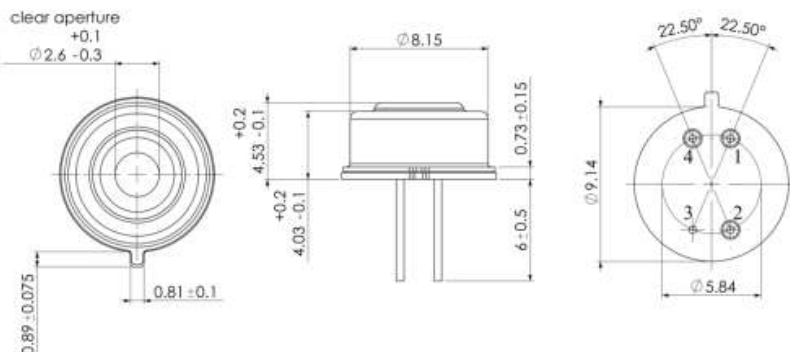
*: Ge optics are having the best performance but are more expensive

** : Same optics, but an external aperture for better performance is added

Package outline:

HTPA32x32L2.1, TO39 housing
(Other optics are available)

Pin	Function
1	Clock (I ² C)
2	3.3 V supply
3	Ground
4	SDA (I ² C)



Modifications reserved Rev.06 / 18.06.2018

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