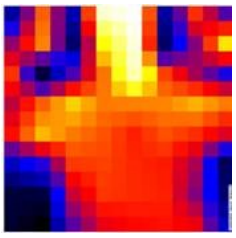


(Picture shows a human holding the hands up)

# HTPA8x8d

## Infrared Thermopile Array Sensor

The HTPA8x8d is the world smallest infrared array sensor with a resolution of 8x8 Pixel inside a TO46 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 89 Hz (highest resolution) or up to 161 Hz (lower resolution).

| *Parameter* | *Value* | *Tolerance* | *Units* |
|---|---|---|---|
| Supply Voltage (DC) | 3.3 – 3.6 | | V |
| Current consumption | 1.8 | ± 0.5 | mA |
| Ambient temperature range | -20 to 85 | | °C |
| Object temperature range | -20 to >1000 | | °C |
| Framerate | 7 to 161 | | Hz |
| NETD | Ca. 100 | | mK@1Hz |

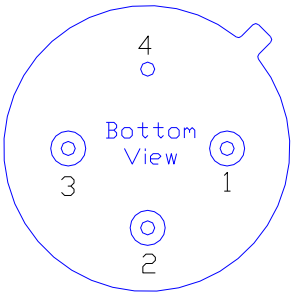
## Available Optics

| *Optic* | *FoV [°]* |
|---|---|
| L0.8 (TO46)* | 47 |
| L2.1 (TO46) | 23 |
| L0.8 to L7.0 (TO39) | 47 to 6 |

* Only on demand

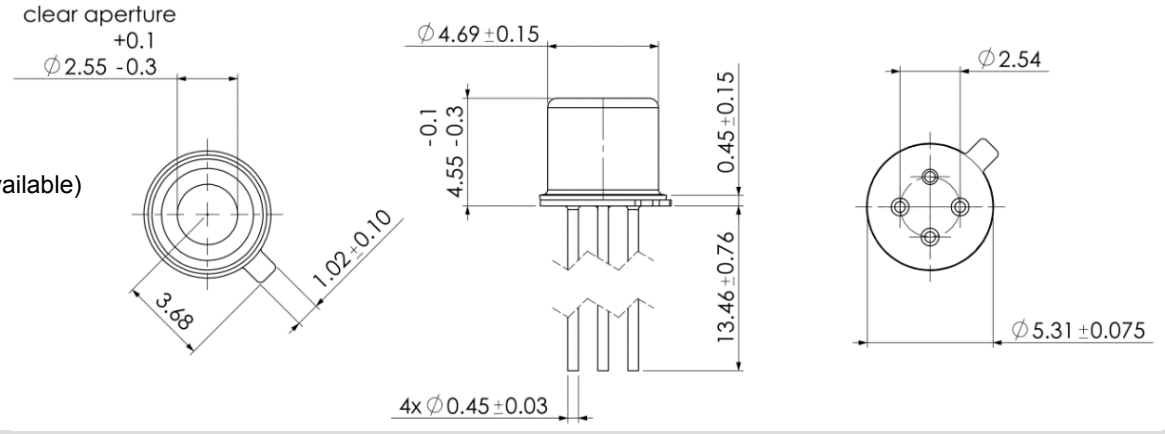
## Pin Configuration

| *Pin* | *Function* |
|---|---|
| 1 | SDA (I²C) |
| 2 | Clock (I²C) |
| 3 | 3.3 V supply |
| 4 | Ground |




## Package outline:

HTPA8x8L2.1,
TO46 housing
(Other optics are available)



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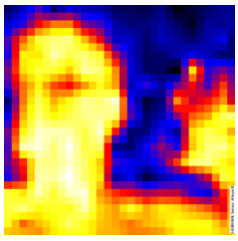
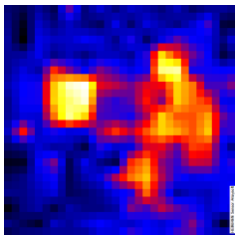




# HTPA16x16d

## Infrared Thermopile Array Sensor

The HTPA16x16d is an infrared array sensor with a resolution of 16x16 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 40 Hz (highest resolution) or up to 70 Hz (lower resolution).

| *Parameter* | *Value* | *Tolerance* | *Units* |
|---|---|---|---|
| Supply voltage (DC) | 3.3-3.6 | | V |
| Current consumption | 3.5 | ± 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 70 | | Hz |
| Framerate (half frame) | 8 to 140 | | Hz |
| NETD | 160 | | mK@1Hz |

## Available Optics:

| *Optic* | L1.6[Si] | L2.1[Si] | L3.6[Si] | L5.0[Ge]* | L7.0[Si] | L5.0[Ge]** |
|---|---|---|---|---|---|---|
| **FoV [°]** | 54 | 45 | 21 | 16 | 11 | 16 |
| **Length of cap [mm]** | tbd | 4.53 | 6.71 | 7.63 | 9.4 | 10.41 |
| **F-number** | 0.8 | 0.8 | 0.9 | 0.85 | 1.2 | 0.85 |

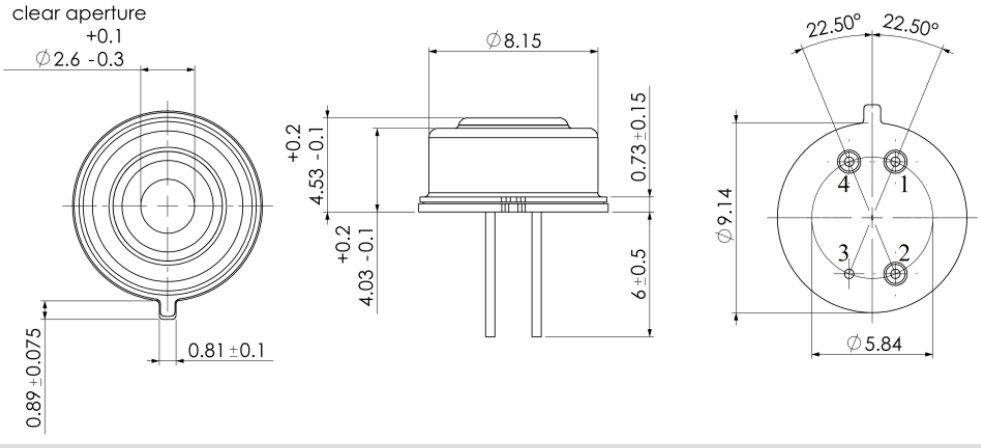
*: Ge optics are having the best performance but are more expensive

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

## Package outline:

HTPA16x16L2.1, TO39 housing
(Other optics are available)

| *Pin* | *Function* |
|---|---|
| 1 | Clock (I²C) |
| 2 | 3.3 V supply |
| 3 | Ground |
| 4 | SDA (I²C) |




Modifications reserved Rev.02 / 18.06.2018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