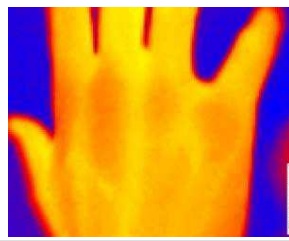


(Picture shows a human head watching to the side)



(Infrared picture of a hand, making the veins visible)

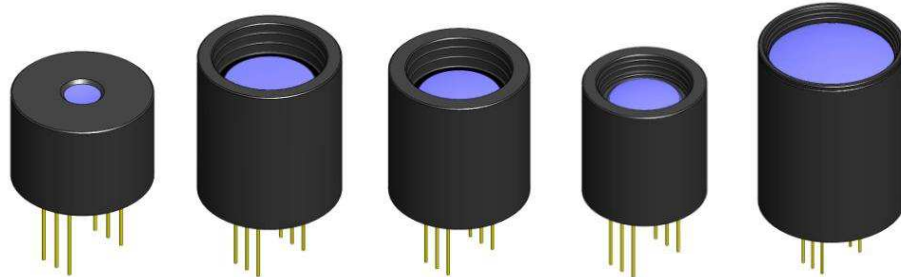
HTPA80x64d

Infrared Thermopile Array Sensor

The HTPA80x64d is the bigger brother of the 32x32d infrared array sensor with a resolution of 80x64 Pixel inside a TO8 housing. 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 up to 20 Hz (highest resolution) or up to 200 Hz (lowest resolution).

| Parameter | Value | Tolerance | Units |
|---------------------------|--------------|-----------|--------|
| Supply Voltage (DC) | 3.3 | ± 0.3 | V |
| Current consumption | 30 | | mA |
| Ambient temperature range | -20 to 85 | | °C |
| Object temperature range | -20 to >1000 | | °C |
| Framerate (full frame) | 1 to 200 | | Hz |
| Framerate (quarter frame) | 4 to 800 | | Hz |
| NETD (best optics) | 50-150 | | mK@1Hz |

Available Optics:

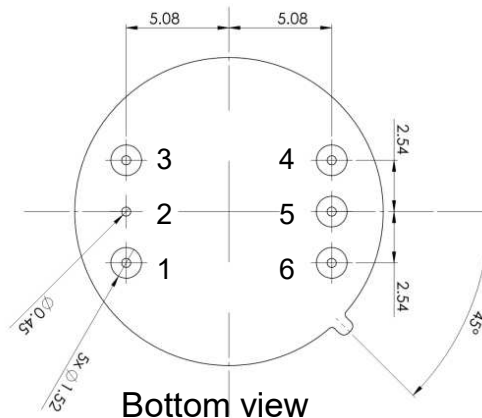


| Optic | L5.0 | L10 | L10.5 | L11[Si]* | L22.5 |
|--------------------|---------|---------|---------|----------|---------|
| FoV [°] | 88 x 70 | 41 x 33 | 39 x 31 | 38 x 31 | 18 x 14 |
| Length of cap [mm] | 14.4 | 25.7 | 24.1 | 21.3 | 36.5 |
| F-number | 0.95 | 0.7 | 0.95 | 1.0 | 1.0 |

*: Si optics are having a worse NETD but are cheaper

Pin Configuration (SPI)

| Pin | Function |
|-----|--------------|
| 1 | 3.3 V supply |
| 2 | Ground |
| 3 | EE_Enable |
| 4 | MISO |
| 5 | MOSI |
| 6 | SCLK |



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