

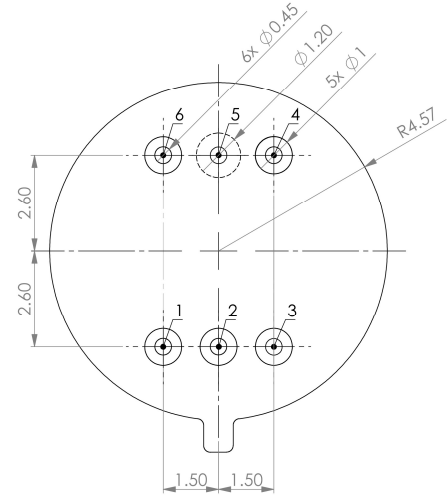
HTPA60x40d

Infrared Thermopile Array Sensors
for Remote Temperature Measurement
and Imaging Applications

The HTPA60x40d is a complete new generation of thermopile array and is filling the gap between 32x32 and 80x64. It comes with a wafer-level vacuum package and 45 µm pixel pitch. The HTPA60x40d sets new standards for thermopile array sensitivity, size and speed.

The digital SPI interface with only 6 pins gives framerates of 21 Hz at full 16 bit ADC resolution, while the sensor is not subject to dual use regulations.

Dimensions – Bottom View



Available Optics



Optic	L1.4	L1.9	L2.6	L4.0
FoV [°]	120 x 68	92 x 59	60 x 39	38 x 25
Length of caps [mm]	9.4	10.35	11.35	15.1
Diameter of cap [mm]	12	12	10	14
F-number	0.8	0.8	1.0	0.8

Characteristics

Parameter	Value	Tolerance	Unit
Supply voltage (DC)	3.3	+0.3/-0.0	V
Current consumption	6	±1.5	mA
Clock frequency (Sensor)	2	+3.5/-1.5	MHz
Ambient temperature range	-20 to 85		°C
Object temperature range	-20 to <600		°C
Framerate (full frame)	5 to 35		Hz
Framerate (fifth part of array)	25 to 175		Hz
NETD (estimated)	<90		mK@1Hz*

Preliminary data, please confirm the final values before design.
* NETD for required framerate: $NETD@1Hz \times \sqrt{Framerate}$

Pin Configuration (SPI)

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