

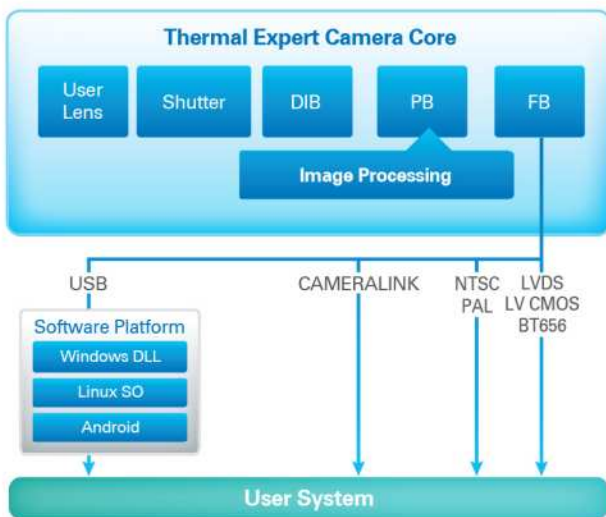
# THERMAL EXPERT™

## Uncooled Infrared Engine

TE-EV1

### Description

TE-EV1 is an infrared camera system which integrates a 640 x 480 17µm pitch, long-wave infrared(LWIR) micro bolometer, shutter, signal processing electronics(DIB, PB, FB) and selectable lenses.



### Component

- DIB(Detector Interface Board) : A/D converting of Detector data.
- PB(Process Board) : Detector control and image processing.
- FB(Feature Board) : Output board.
  - USB output mode

### Applications

- Security / Surveillance
- Night Vision
- Marine Navigation
- Medical Application
- Electrical Maintenance



### Images from Thermal Expert Engine



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## Specifications

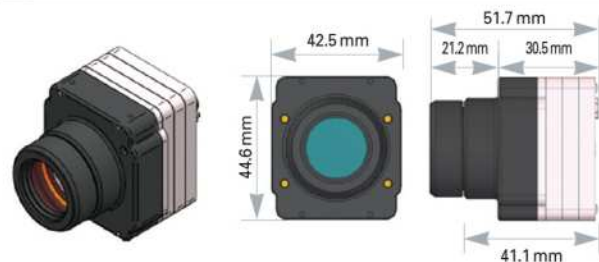
Detector	
Detector type	Micro-Bolometer (Material: TiOx)
Array format	640 x 480
Pixel pitch	17 $\mu$ m
Thermal sensitivity (NETD)	$\leq 50$ mK@F/1, 300K $\leq 35$ mK@F/1, 300K(Optional)
Spectral range	8 to 14 $\mu$ m
Camera Engine	
Power supply	DC 5V
Power consumption	<2.0 W @ (30Hz)
Video output format	Digital : Camera Link, USB, LVDS, LV CMOS, BT656, IP(OnVif) Analog : NTSC, PAL
Control	USB2.0, RS-232, I2C, UART
Frame rate	30Hz or 60Hz
Time to First Image	< 10 sec
Dimensions (WxHxD) (with lens mount)	42.5 mm x 44.6 mm x 41.1 mm
Weight	< 110 g (without lens)
Operating temperature	-10 $^{\circ}$ C ~ 65 $^{\circ}$ C (-40 $^{\circ}$ C ~ 65 $^{\circ}$ C optional)
Storage temperature	-40 $^{\circ}$ C ~ 85 $^{\circ}$ C
Scene range temperature	-10 $^{\circ}$ C ~ 150 $^{\circ}$ C (at Digital output)

## Lens Information

Focal Length	F-number	FOV (H x V - Diagonal)
7.5mm	F/1.0	76 x 59.5-85
19 mm	F/1.0	32.3 x 24.4-40.1
25 mm	F/1.2	24.2 x 18.4-29.8
35 mm	F/1.1	17.0 x 13.0-20.9

## TE-EV1 Dimensions

(Unit mm)



## Range Performance

