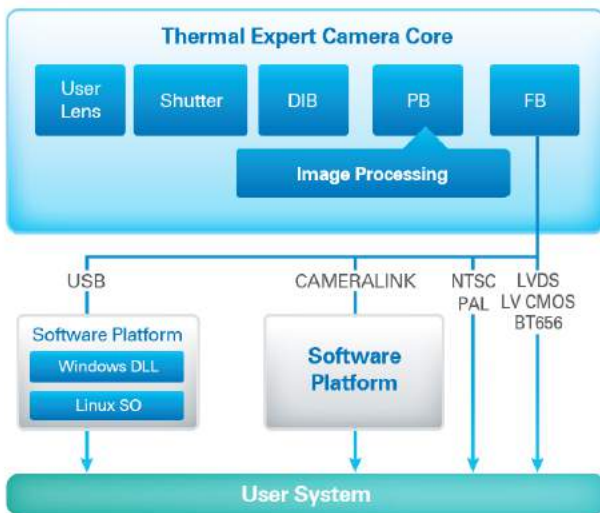


THERMAL EXPERT™

Infrared Camera Core (TE-EV1) VGA 640 x 480, 17µm pitch

Description

TE-EV1 is an infrared camera system which integrates a 640x480 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
 - Camera Link output mode
 - LVDS or LV CMOS or BT656 output mode
 - NTSC or PAL output mode

Application

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



Thermal Expert Camera Core



Key Specification

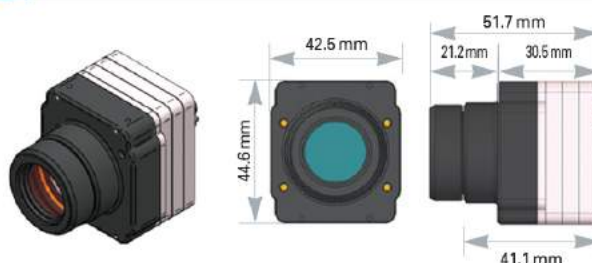
Detector	
Detector type	Micro-Bolometer (uncooled)
Array format and Pitch	640 x 480, 17 μ m
Thermal sensitivity (NETD)	$\leq 50\text{mK}@F/1, 300\text{K}$
	$\leq 35\text{mK}@F/1, 300\text{K}(\text{Optional})$
Spectral range	8 to 14 μ m
Camera Engine	
Power supply	DC 5V
Power consumption	< 2.0 W @ (30Hz)
Video output format	Digital : Camera Link, USB, LVDS, LV CMOS, BT656 Analog : NTSC, PAL
Control	USB2.0, RS-232, I2C
Frame rate	9 Hz
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)
Operation temperature	-10 $^{\circ}\text{C}$ ~ 65 $^{\circ}\text{C}$ (-40 $^{\circ}\text{C}$ ~ 65 $^{\circ}\text{C}$ optional)
Storage temperature	-40 $^{\circ}\text{C}$ ~ 85 $^{\circ}\text{C}$
Scene range temperature	-10 $^{\circ}\text{C}$ ~ 120 $^{\circ}\text{C}$ (at Digital output)

Lens Information

Focal Length	F-number	FOV (H x V - Diagonal)
8.5 mm	F/1.2	73.2 x 54.5 - 93.3
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

Product Dimension

(Unit mm)



Range Performance (DRI)

