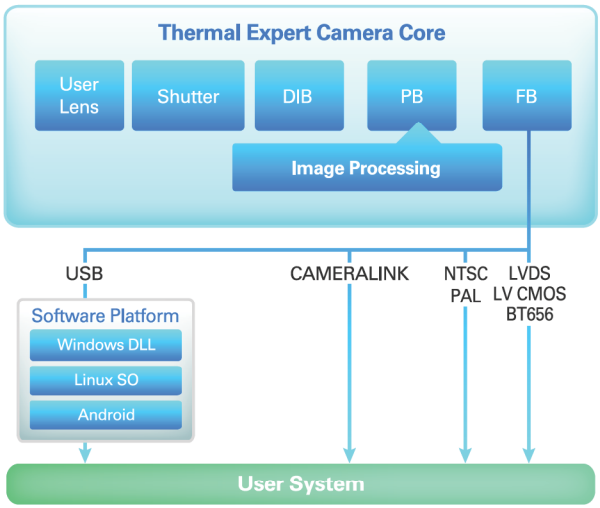
THERMAL EXPERT™

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.



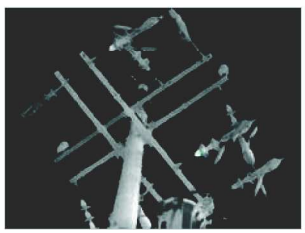
Component

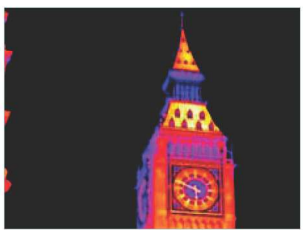
- DIB (Detector Interface Board) : A/D converting of Detector data.
- PB (Process Board) : Detector control and image processing.
- FB (Feature Board) : Output board.
  - USB output mode
  - Camera Link output mode
  - LV CMOS or BT656 output mode
  - NTSC or PAL output mode

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 (uncooled)
Array format	640 x 480
Pixel pitch	17㎛
Thermal sensitivity (NETD)	≤ 50mK@F/1, 300K
	≤ 35mK@F/1, 300K (Optional)
Spectral range	8 to 14㎛
Camera Engine	
Power supply	DC 5V
Power consumption	< 2.0 W @ (30 Hz)
Video output format	Digital : Camera Link, USB, IP(OnVif), LV CMOS, BT656 Analog : NTSC, PAL
Control	USB2.0, RS-232, I2C, UART
Frame rate	30 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)
Operating temperature	-10 ℃ ~ 65 ℃ (-40 ℃ ~ 65 ℃ optional)
Storage temperature	- 40 ℃ ~ 85 ℃
Scene range temperature	-10 ℃ ~ 150 ℃ (at Digital output)

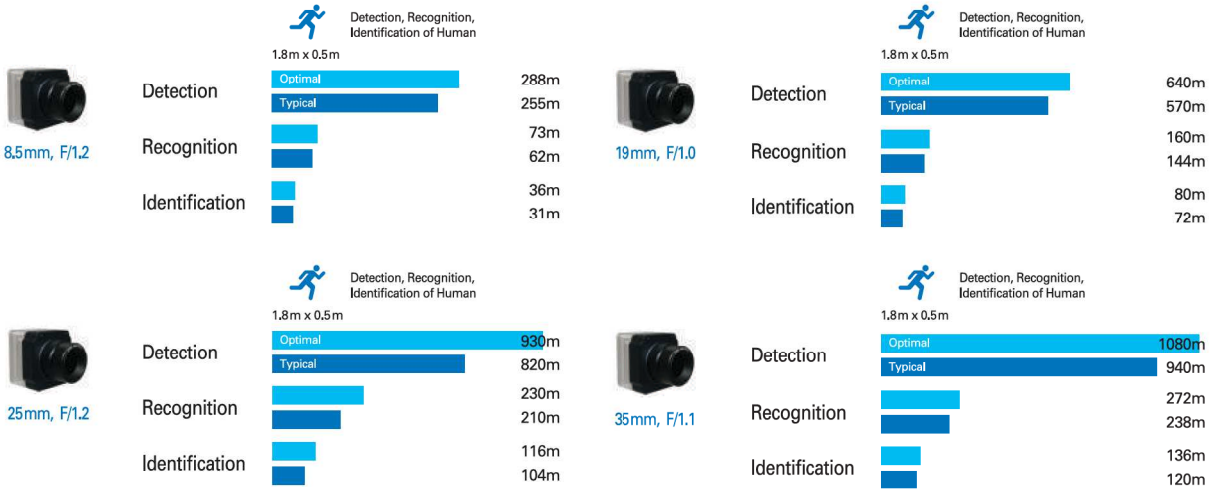
Lens Information

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

TE-EV1 Dimensions

(Unit mm)

Range Performance



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