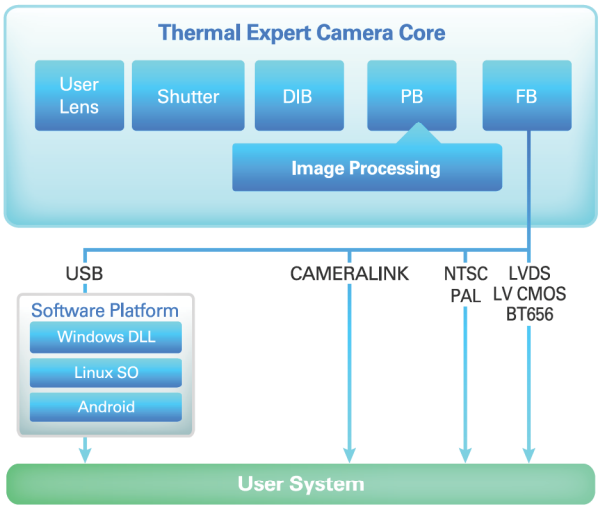
THERMAL EXPERT™

Uncooled Infrared Engine

TE-EQ1

Description

TE-EQ1 is an infrared camera system which integrates a 384 x 288 17μm pitch, long-wave infrared (LWIR) micro bolometer, shutter, signal processing electronics (DIB, PB, FB) and selectable lenses.



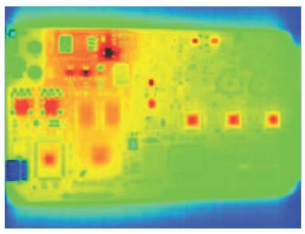
Components

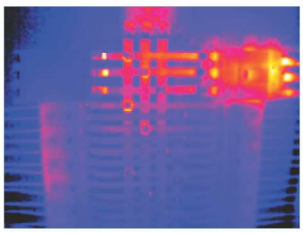
- DIB (Detector Interface Board) : A/D converting of Detector data.
- PB (Process Board) : Detector control and image processing.
- FB (Feature Board) : Output board.
  - USB output mode
  - Camera Link output mode
  - LV CMOS or BT656 output mode
  - NTSC or PAL output mode

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	384 x 288
Pixel pitch	17㎛
Thermal sensitivity(NETD)	≤ 50mK@F/1, 300K
Spectral range	8 to 14㎛
Camera Engine	
Power supply	DC 5V
Power consumption	< 1.8W@ (30Hz)
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 (W x H x D) (with lens mount)	42.5 mm x 44.6 mm x 42.7 mm
Weight	< 110g (without lens)
Operating temperature	-10℃ ~ 65℃(-40℃ ~ 65℃ optional)
Storage temperature	-40℃ ~ 85℃
Scene range temperature	-10℃ ~ 150℃ (at Digital output)

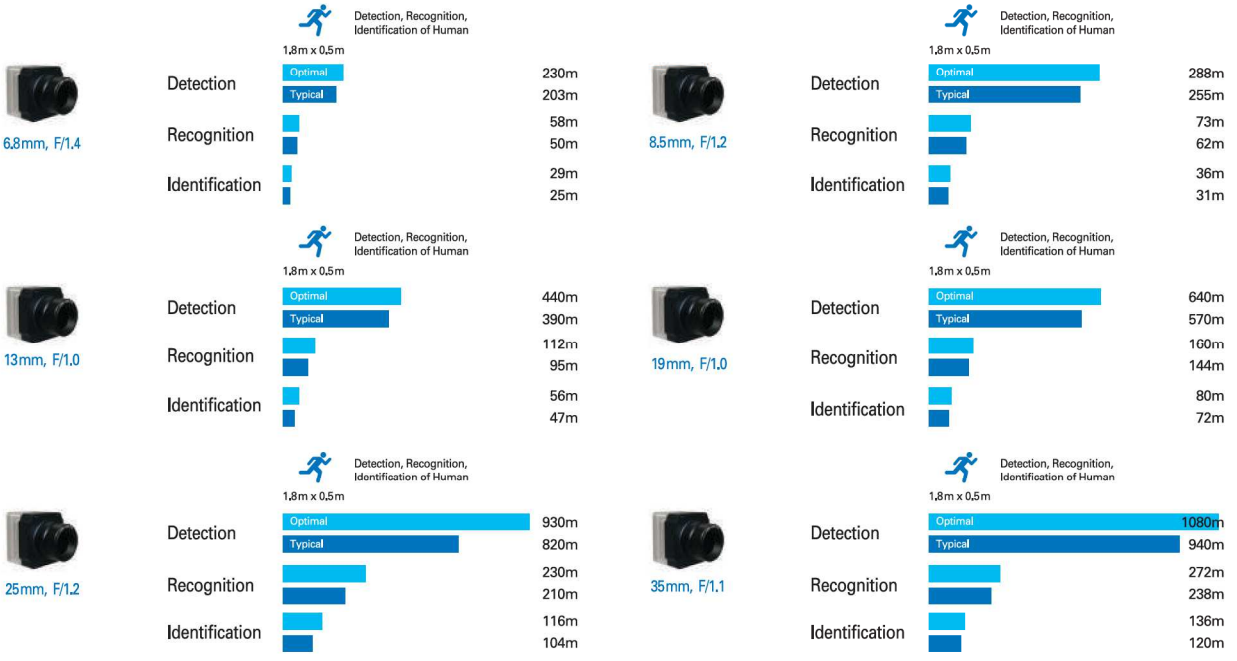
Lens Information

Focal Length	F-number	FOV(H x V - Diagonal)
6.8mm	F/1.4	56.3 x 41.8 - 71.4
8.5mm	F/1.2	43.5 x 32.8 - 54.7
13mm	F/1.0	28.7 x 21.7 - 35.3
19mm	F/1.0	19.6 x 14.7 - 24.4
25mm	F/1.2	14.8 x 11.1 - 18.4
35mm	F/1.1	10.5 x 7.9 - 13.0

TE-EQ1 Dimensions

(Unit mm)

Range Performance



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