

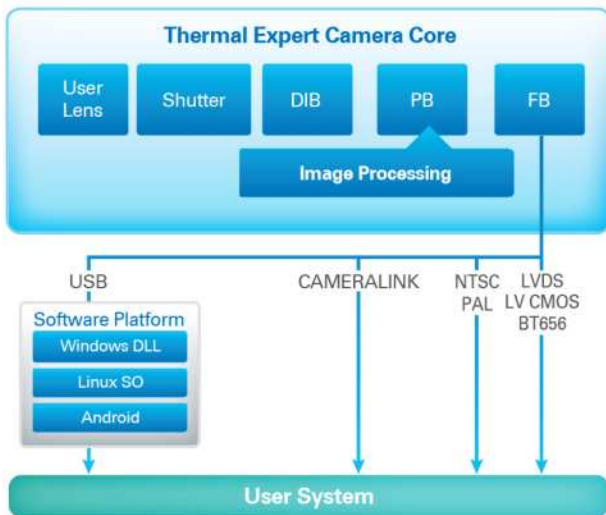
# THERMAL EXPERT™

## Uncooled Infrared Engine

TE-EQ1

### Description

TE-EQ1 is an infrared camera system which integrates a 384x288 17µm pitch, long-wave infrared(LWIR) micro bolometer, shutter, signal processing electronics(DIB, PB, FB) and selectable lenses.



### Components

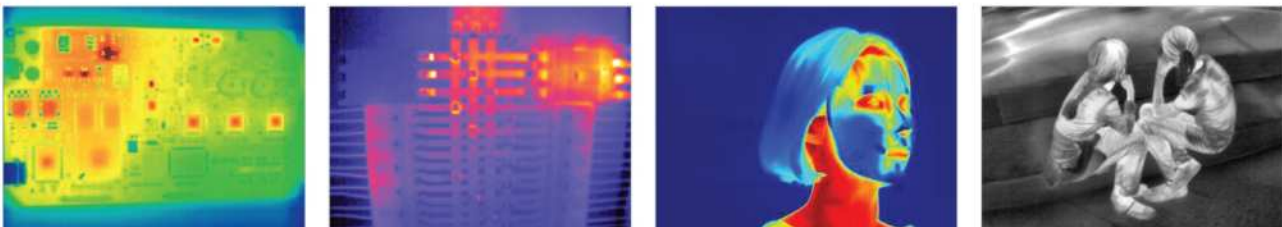
- DIB(Detector Interface Board) : A/D converting of Detector data.
- PB(Process Board) : Detector control and image processing.
- FB(Feature Board) : Output board.
  - USB output mode

### Applications

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



### Images from Thermal Expert Engine



# SEE THE NEW WORLD THROUGH i3system, Inc.

## Specifications

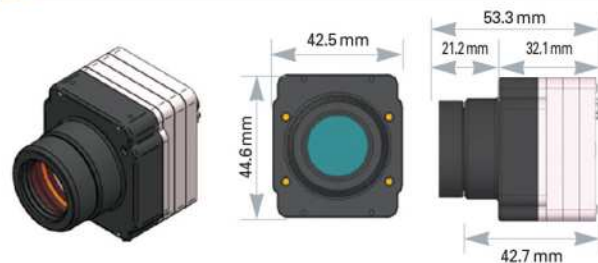
Detector	
Detector type	Micro-Bolometer (uncooled)
Array format	384 x 288
Pixel pitch	17 $\mu$ m
Thermal sensitivity(NETD)	$\leq$ 50mK@F/1, 300K
Spectral range	8 to 14 $\mu$ m
Camera Engine	
Power supply	DC 5V
Power consumption	< 1.8W @ (30Hz)
Video output format	Digital : Camera Link, USB, LVDS, LV CMOS, BT656, IP(OnVif) Analog : NTSC, PAL
Control	USB2.0, RS-232, I2C, UART
Frame rate	30 Hz or 60 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 $^{\circ}$ 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)
6.8mm	F/1.4	56.3 x 41.8 - 71.4
8.1mm	F/1.1	49 x 36 - 63.3
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

