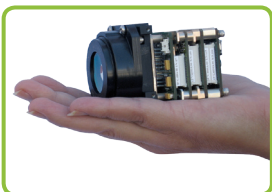




## Engine Applications



### High Performance Miniaturized Infrared Engine



Opgal's EyeR 25 is a miniature high-performance microbolometric thermal imaging engine, based on a 384x288 pixels VOx or ASi microbolometer detector. The engine features powerful proprietary algorithms, fully tested and proven to be effective in poor visibility conditions. It provides analog (CCIR or RS170) and digital LVDS video outputs. The EyeR 25 is tuned to long-wave infrared with sensitivity of less than 50 mk when using an f/1.0 lens.





## Engine Applications

# EyeR 25 Specifications

## Key Features

- Modular design, provided as an engine, with/without NUC shutter or as an open frame
- Powerful proprietary algorithms fully tested and proven effective in poor visibility conditions
- Anti-blooming mechanism
- OPTIMA - User-friendly interface software
- Electronic Zoom x2, x4
- Digital Video Output via LVDS (optional)
- Engine control via communication protocol or (optional) discretes
- Focus & FOV control via communication (optional)
- High resolution graphics overlay
- User defined Region Of Interest (ROI)
- On screen menu
- Miniaturized shutter
- Snap shots

## Advantages

- Cost-effective and affordable
- Flexible mechanical architecture
- Engine or Open Frame configuration
- Compact size and lightweight
- Flexible signal processing capabilities
- Off the shelf - short time to market

## Optional Features

- Lenses - from 6 mm to 210 mm focal length, F# up to 1.6
- 7-9V, 12V power supply

## Engine Configuration Options

| Features                                  | Description/Performance           |
|-------------------------------------------|-----------------------------------|
| Focal Plane Array                         | VOx/ASi Microbolometer            |
| Spectral Band                             | 7.5-14 $\mu$ m                    |
| Number of Pixels                          | 384x288                           |
| Frame Rate (digital output only)          | 60 Hz Max                         |
| Pixel Size                                | 25 $\mu$ m                        |
| Analog Video Output                       | CCIR or RS-170 (PAL or NTSC)      |
| Digital Video Output (optional)           | LVDS (14 BIT)                     |
| Remote Control                            | RS 232/RS 422 (optional)          |
| Control Operation                         | Video Polarity, NUC, Zoom, Freeze |
| Operating Voltage                         | 8-28 VDC, 12 VDC (optional)       |
| Power Consumption                         | 2.2 W (basic unit)                |
| NETD                                      | 50° mK @ f/ 1 lens                |
| Operating Temperature Range               | -40°C to +60°C                    |
| Dimensions with/without Shutter (maximum) | 49x63x63 / 42x43x50 [mm] (HxWxL)  |
| Weight with Shutter                       | 150 g                             |
| Environmental Qualification               | MIL-STD-810                       |

## Applications

The EyeR 25 is compact and easy-to-use, and can be integrated into third party systems. The engine is perfect for a wide range of applications including weapon sights, weapon stations and DVE.

- Weapon sights
- UAVs
- Weapon stations
- DVEs (Driver Viewer Enhancer)

Note: Distances are calculated based on geometrical values and do not take into account atmospheric conditions