



# THERMAL VISION SENSOR



Centre for Development of  
Advanced Computing (C-DAC),  
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# About Thermal Vision Sensor

Thermi-Vision is an AI powered thermal sensor based smart vision camera designed for road traffic applications. The thermal imaging sensor provides high data accuracy in any light conditions (complete darkness or glaring sunlight) and in all weather conditions. Thermi-Vision is equipped with in-built hardware electronics capable of running AI based video analytics. The lens mount provides flexibility for interchangeable lenses depending on the application requirement. The camera hardware is capable to deploy different applications.

## Specifications

### POWER

|                           |                 |
|---------------------------|-----------------|
| Operating Voltage         | 12-36 V DC      |
| Power over Ethernet (PoE) | PoE A and PoE B |

### PROCESSOR SYSTEM (MPSoC –ZU4EV)

|                       |  |
|-----------------------|--|
| Application Processor | Quad-core ARM Cortex-A53               |
| Operating Frequency   | 1.5GHz                                 |
| Real-Time Processor   | Dual-core ARM Cortex-R5, up to 600MHz  |
| Graphics Processor    | Mali™-400 MP2                          |
| Programmable Logic    | 192 K System Logic Cells               |
| RAM                   | 2 GB DDR4 SDRAM for PS and 1 GB for PL |
| Flash                 | 8GB eMMC Flash (Expandable)            |
| Video Codec           | H.264 / H.265                          |

### CONNECTIONS & COMMUNICATIONS

|                |  |
|----------------|--|
| Ethernet/5G/4G | Server communication and configuration |
| CAN            | External Communication Interface       |

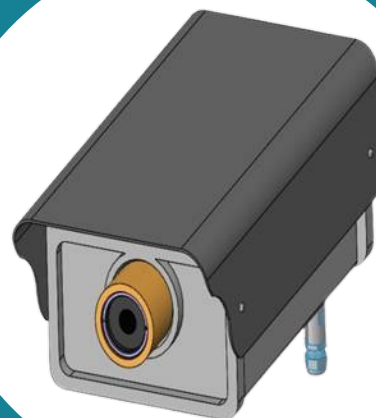
## Specifications

### COMPLIANCE

|                   |                                    |
|-------------------|------------------------------------|
| Protection Grade  | Housing & Connectors<br>IP67 grade |
| Shock & Vibration | IEC 60870-2-2                      |
| Temperature Range | 0 to 55° C                         |

### IMAGING & OPTICAL

|                   |   |
|-------------------|---|
| Detector Type     | Uncooled micro bolometer<br>(Dali DLD384)               |
| Spectral Response | 8 to 14 μm  |
| Streaming Video   | RTSP  |
| Resolution        | 384x288   |
| Fame Rate         | 30 FPS  |
| Compression       | H.264, MPEG-4   |
| Field of View     | Horizontal: 60° Vertical: 50°                           |
| Lens Mount Type   | Screw Mount   |
| Focal Distance    | 7 to 19 mm (support for lens of different focal length) |
| Mounting          | Pole mountable  |



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