

# HORIZON

ELECTRONICS DIVISION

## THERMAL IMAGING CAMERA



The Horizon Medium Wave Infra-Red (MWIR) thermal imaging camera employs the latest focal plane array technology to meet long-range surveillance and target identification for early warning of threats and detection of illegal activities to satisfy border control, coastal security Counter UAS and surveillance requirements. The camera is fitted with a high definition detector array and is qualified to operate in the most stringent land and maritime environments.

The system is able to detect vehicles at up to 50km and personnel at ranges of up to 30km. One camera can therefore monitor hundreds of square kilometres of terrain. The crisp imagery allows rapid identification and detailed investigation of suspicious movements and activity.

The latest generation of algorithms provide additional image enhancements for harsh environments, these include turbulence mitigation, Local Area Contrast enhancement (LACE), edge enhancement and image stabilisation. Horizon provides a wider Field of View (FoV) for greater Situational Awareness, whilst delivering a narrower IFoV for longer range target identification and engagement.

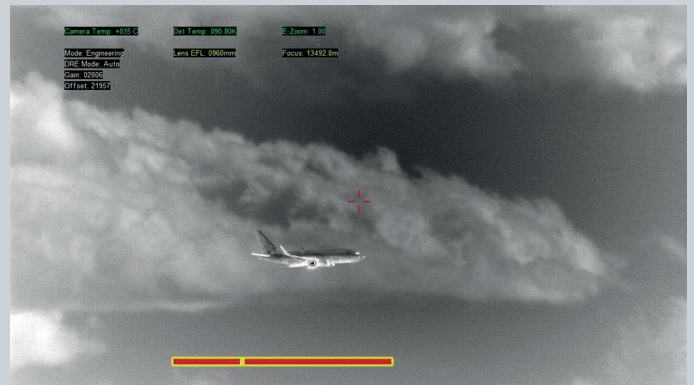
Horizon cameras have been specifically designed with very long life cooling engines of 50,000 hours. This increases reliability and reduces through-life costs.

### KEY BENEFITS

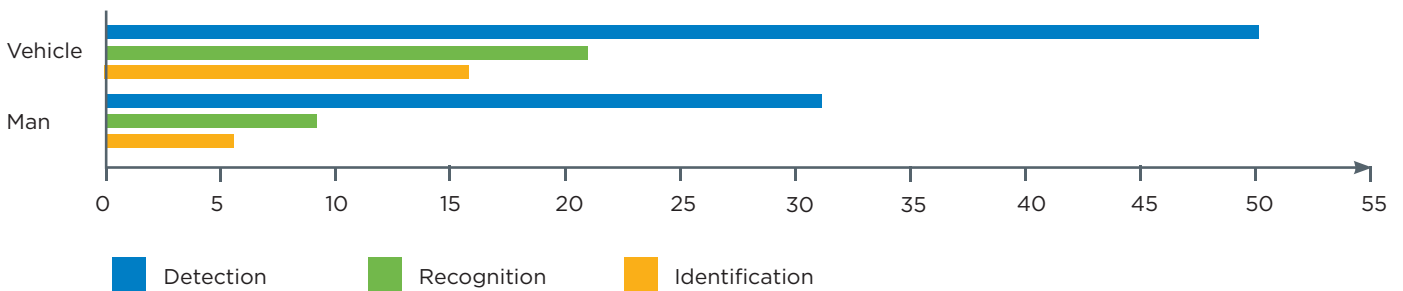
- › Designed, developed and manufactured in the UK
- › 'Dual Use' rated
- › Very low through-life cost - 50,000 hours cooling engine life
- › Suitable for Land and Maritime environments
- › Ease of integration - video and communication over Ethernet
- › Multiple digital and analogue video outputs
- › Latest image processing
  - › Turbulence mitigation
  - › Image stabilisation
  - › Local area contrast enhancement
- › Ultra narrow field of view: 0.9°
- › Qualified to operate from -32°C to +55°C

## TECHNICAL SPECIFICATION

- › Detector array resolution: 1280 x 720
- › Detector pitch: 12 µm
- › FOV: 11.0 x 6.2 degrees to 0.9 x 0.5 degrees
- › Detector technology: CMT
- › Band: 3.7µm - 4.95µm
- › F/Number: F/4
- › Focal length of continuous optical zoom: 80-960mm
- › Comms: RS-422, Ethernet
- › Analogue video output: NTSC, PAL (CCIR), HDTV 720p
- › Digital video output: HD-SDI, Ethernet (H264)
- › Operating temperature: -32°C to 55°C
- › Weight: 23kg
- › Size (L x W x H): 596.5mm x 299mm x 299mm
- › Power source: 28VDC (18-32V)
- › Nominal power at steady state: <25W
- › Dynamic range enhancement: LACE, Linear, Edge enhancement
- › Image stabilisation: Yes
- › Turbulence mitigation: Yes
- › Auto focus: Yes
- › Cooling engine: Long life linear (50,000hrs)
- › Camera MTBF: 35,000 hours
- › Non-uniformity corrector: Built-in reference and quadratic NUC
- › E-Zoom: Interpolated (up to 8x)



## HORIZON RANGE PERFORMANCE (KM)



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MM07756 07-19