

## LRS1500

### LRS1500 LONG RANGE OPTICAL SURVEILLANCE SYSTEM

The LRS1500 is an electro-optical sensor proven on operations with the United Kingdom Ministry of Defence (UK MoD) as a Long Range Surveillance Sensor and is ideal for:-

- Border Surveillance
- Coastal & Marine Surveillance
- Man Portable Covert Intelligence Gathering
- Missile and Test Ranges

The LRS1500 is a high performance long range surveillance system. It provides the observer with the capability to read a vehicle number plate at ranges in excess of 2.4km, to recognize a known face at in excess of 1km and to observe human activity at greater than 8km. The LRS1500 is suitable for operation in remote, exposed situations including coastal environments. The system can be man portable or mounted on towers located at vantage points providing commanding fields of regard.

#### FIELD PROVEN ELECTRO OPTICAL SENSOR

The LRS1500 is fitted with a continuous zoom lens with a focal length from 12.5 - 750mm, plus a switchable optical 2x extender. This gives the system an effective focal length of 1500mm. This type of lens has excellent light gathering capability throughout its focal length making it an excellent choice for long range, low light surveillance. The lens and camera assembly is encapsulated in a rugged housing, combining excellent military standard EMC qualities with a high level of environmental protection. The front sacrificial glass is optically flat to  $1/4 \mu @ 750nm$ . The sensor housing incorporates a wiper unit.

#### CAMERA CONFIGURATION

The cameras can be factory configured with daytime colour, or low light monochrome sensors. Alternatively the LRS1500 can be fitted with a unique field proven camera change-over mechanism, providing the ultimate solution for all light conditions. The platform performance can be further extended to include thermal cameras, offering zero light, all weather operation.

#### INTEGRATION

The LRS1500 can be integrated into existing command and control systems. Alternatively Cheltek can integrate to single or multi camera control systems.



#### FEATURES

- Observing activity in excess of 8000m
- Making identifications beyond 1000m (day)
- Colour day plus enhanced night vision
- Accurate repeatable positioning
- Mission proven lens

#### BENEFITS

- Compact and easily deployed
- Optimised Vision
- Day & Low light vision
- Instantaneous operation
- Low through life costs
- Near IR sensitive

# Product Specification

## HOUSING

Type: Aluminium with Gore-Tex filter.  
Size: 59mm x 67mm x 122mm  
Weight: 10.7Kg  
Material: Aluminium  
Optical Window: AR & ITO coating  
Options: Wiper  
Washer Assembly

## LENS

System Type: Refractive  
Aperture: f3.8 at 12.5mm F15 at 1500mm.  
Focal Length: 12.5mm to 750mm (60x)  
25mm to 1500mm with extender.  
FoV (Wide): 21.68° HFOV (1/3<sup>rd</sup> inch ccd)  
FoV (Tele): 0.18° HFOV (1/3<sup>rd</sup> inch ccd)  
Focus Range: 5m to infinity  
Focus Mode: Automatic focus tracking with continuous zoom.

## CAMERA

Type: Colour to monochrome low-light changeover.  
Colour Camera: 1/3" interline transfer  
Effective Pixels: PAL 752 x 582  
NTSC 768 x 492  
Horizontal Resolution: > 450 TVL  
S/N Ratio >50dB  
Effective Pixels: PAL 658 x 495  
NTSC 658 x 495  
Min Illumination: <1 Lux at 1500mm



## CAMERA OPTIONS

Monochrome: 1/2" or 1/3" format  
Colour Camera: 1/2" or 1/3" format.



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Cheltek Ltd

Mythe Farm Business Centre, Tewkesbury, GL20 6EA  
[sales@cheltek.co.uk](mailto:sales@cheltek.co.uk) [www.cheltek.co.uk](http://www.cheltek.co.uk)

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