

## LRS3000

### LRS3000 LONG RANGE OPTICAL SURVEILLANCE SYSTEM

The Cheltek LRS3000 long range camera is the world's most cost effective, multi-role electro-optical surveillance system. It meets the demanding operational requirements of intelligence agencies, special forces and border protection agencies in both urban and rural scenarios, anywhere in the world.

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

The LRS3000 is a completely self contained and highly portable video surveillance, monitoring and recording system. Compact and lightweight, yet powerful and robust, the system has been specially designed for a wide range of demanding long range reconnaissance applications. Employing the very latest in electro-optic technologies, the LRS3000 provides surveillance at extreme ranges and in low light, making it ideal for sensitive covert and overt operations. The system is field proven, having been used extensively in harsh environments.

#### SEE WHAT YOU ARE MISSING

The LRS3000 electro-optic sensor consists of a fully motorised 250-3015mm continuous zoom Cassegrain lens, coupled to a unique colour and low-light CCD changeover camera. This makes the sensor capable of operating in light levels from full sunlight down to 1 Lux at full zoom and at target distances in excess of 13km.

#### LIGHTWEIGHT AND COMPACT

The camera housing has been designed for special force applications where size, weight and performance are critical. Weighing less than 12kg, the lens and camera assembly is encapsulated in a single, ultra-light housing which combines excellent military standard EMC qualities with a very high level of environmental protection. An equally lightweight and compact, high performance remote controlled Pan and Tilt director head is available. This allows the sensor payload to be accurately and repeatedly positioned onto targets, either by manual control or slewing automatically to pre-programmed positions. An optional fibre optic modem can be incorporated into the base to allow interference-free remote operation over tactical fibre. Cheltek can also provide a desktop controller, a briefcase-style command and control unit or a hand held control unit, all utilising a user-friendly and intuitive Man Machine Interface, greatly reducing the need for operator training.



#### FEATURES

- Observing activity in excess of 13,000m
- Making identifications beyond 2,500m
- Colour day plus enhanced low-light vision
- Accurate and repeatable positioning
- Self-contained system

#### BENEFITS

- Lightweight and portable
- Self-contained system
- Rapidly deployable
- Covert or overt usage
- Easy export of footage
- Reliable technology proven in the field



Complete LRS System



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Defence

# Product Specification



## Housing:

Type: Sealed, dry nitrogen purged  
Size: 152mm diameter increasing to 220mm  
711mm long

Weight: 12kg  
Material: Aluminium  
Optical Window:  
AR and ITO coating, flat to 4 fringes  
Options: Wiper

## Lens:

System Type:  
Maksutov Cassegrain  
Aperture: 100mm  
Zoom Ratio:  
6.2x or 12.4x with Barlow  
Focal Length:  
250mm to 1540mm or  
250mm to 3014mm with Barlow  
Field of View (Wide):  
1.1° x 0.82° (1/3" Sensor)  
Field of View (Tele):  
0.09° x 0.068° (1/3" Sensor)  
Focus Range:  
10m to infinity  
Focus Mode:  
Automatic focus tracking with zoom

## Electrical:

Voltage Options:  
24VDC or 110-240VAC  
(12VDC using optional inverter  
accessory)  
Power: 50W quiescent  
200W peak

## Environmental:

Temperature:  
-20°C to +55°C



LRS3000 comes supplied in rugged and reusable protective Pelican cases for easy and secure transportation

## Camera:

Type: Colour to monochrome low-light  
changeover  
Optional X-Y shift giving +/- 0.75° Field  
of View  
Optional external context camera with  
Field of View from 1.7° to 58.0°

Colour Camera:  
1/3" Interline transfer

Effective Pixels:  
PAL: 752x582  
NTSC: 768x492

Horizontal Resolution:  
>450 TVL

S/N Ratio:  
>50dB

Low Light Monochrome Camera:  
1/2" Impactron Interline Transfer Peltier  
cooled (subject to export licence)

Effective Pixels:  
PAL/NTSC: 658x495

Minimum Illumination:  
<1 Lux

## Pan and Tilt Director:

Drive Type:  
Indirect  
Azimuth Movement:  
Continuous rotation  
Elevation Movement:  
+20° to -40°  
Positional Accuracy:  
0.056°  
Minimum Speed:  
0.0056° per second  
Maximum Speed:  
50° per second

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