

# L3C216 Series

Very high sensitivity CCD camera



The L3C216 is a high sensitivity, 24-hour video camera, which outperforms competition across the range. Building on the success of e2v's leading edge L3Vision™ video products, the L3C216 EMCCD camera gives outstanding performance from bright sunlight to overcast starlight and below. The digital architecture provides enhanced performance at the lowest light levels and enables user access for camera optimization.

## Key features

- Back Illuminated CCD
- Very high sensitivity, 24-hour camera
- 10 microlux scene illumination with f1.4 lens
- High resolution, high contrast, 'eye friendly' image
- Smooth day/night transition and rapid overload response
- Undamaged by persistent bright lights or overloads

The 2/3" format, monochrome L3C216 operates from bright sunlight down to overcast starlight conditions at TV frame rates with fully automatic level control. Extended integration allows imaging at even lower levels with reduced frame rates.

Flexible and easy to use, the camera offers bright, crisp images in full daylight and its selectable temporal and spatial filtering options combined with the integral Peltier cooled EMCCD package enables the user to attain optimal performance at the very lowest light levels.

As a result, the L3C216 gives outstanding target recognition and identification capability.

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Please refer to the website for full distributor list: [www.e2v.com](http://www.e2v.com)

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## Typical performance

TV system	EIA or CCIR
Sensor	EMCCD (Electron Multiplier CCD) 2/3" frame transfer back illuminated
CCD readout noise	<1e <sup>-</sup>
Fill factor	100%
Anti-blooming	Standard
Spectral sensitivity	300-1060 nm
CCD effective pixels	768(H) x 488(V) EIA / 768(H) x 576(V) CCIR
Pixel size	11.5 x 27 μm EIA / 11.5 x 23 μm CCIR
Luminous sensitivity	10 microlux scene*
Luminous sensitivity	2500 μA/lumen (2854K)
Limiting resolution	576 TVL pph
Signal to noise	15 dB** (no filtering)
Resolution	200 TV lines pph** (20 msec integration, no filter)
Camera cooling	Fan-assisted air or heatsink to base
Frame transfer shutter	Optional liquid crystal shutter***
Analog output	Composite video 1V p-p, 75 ohm EIA or CCIR
Digital interface	Camera link
Sync	Mixed sync, Field (single-ended TTL)
Sync outputs	Frame, Field, Line and Pixel (all differential)
Strobe input	Extended integration (single-ended TTL)
Lens control	Auto-iris (HR10 / 6 connector) - T350 lens required for bright sunlight operation
Power	12V @ 800mA typical, 1.1A max
Storage temperature range	-35°C to +70°C
Operation temperature range	-35°C to +55°C
Relative humidity	95% non-condensing
Standard operational ceiling	30,000ft

\*Shadowed overcast starlight, f1.4 lens, 200ms integration

\*\*10<sup>-4</sup> lux scene illumination with f1.4 lens

\*\*\*Storage temperature -20°C to +70°C, Operation temperature range -20°C to +55°C with intelligent FSS control

## User selectable features

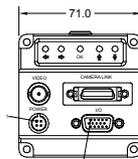
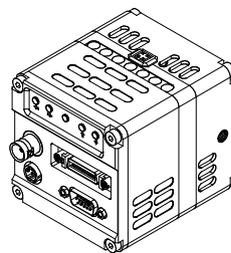
- Remote control via camlink or RS232
- On-screen display for camera set-up
- Automatic or manual gain control
- Peak or Average exposure
- Gamma 1.0 or 0.45
- Optional backlight compensation via one f-stop overdrive
- Optional spatial and temporal filtering
- Extended integration on chip up to 15 field periods

## Applications

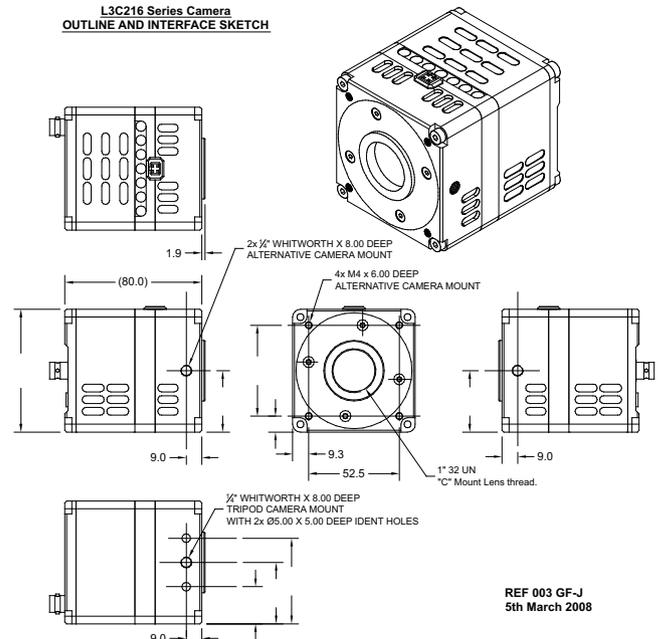
- Airborne surveillance
- Ground-based surveillance
- Underwater imaging enhanced
- Blue response
- Driver view enhancement
- Commander's night sight
- Scientific imaging
- VAV reconnaissance
- Situational awareness

Please refer to the product datasheet for more detailed specification and operation of this product.

**Product options**  
L3C216-05AF  
L3C216-05AFS  
L3C216-06AF  
L3C216-06AFS



**L3C216 Series Camera  
OUTLINE AND INTERFACE SKETCH**



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REF 003 GF-J  
5th March 2008