Magnix Naval CCD-200

Mid-range RWS camera system

Built for Border Control and Homeland Security



Features

- · High-sensitivity colour CCD camera
- Zoom lens 11 to 200 mm (18×)
- · Oil-free lens construction
- Temperature range -40°C to +70°C
- Factory pre-aligned bore sighting
- Graphical overlays
- · Setup and control by serial interface
- Built-in wiper system



The Magnix Naval CCD-200 is an integrated camera system, based on a highly sensitive colour CCD camera and a powerful zoom lens, ideal for day or night surveillance in harsh environments, such as coastal surveillance and similar applications. The system has an integrated washer-wiper system for keeping the protective window clean.

The camera system is designed to deliver high-performance images, even under the harshest conditions, in temperatures ranging from -40 $^{\circ}$ C to +70 $^{\circ}$ C.

Optical system

The optical system is developed specifically for long-range surveillance. It features a continuous zoom, with a powerful zoom ratio of 11 to 200 mm, auto-iris and focus adjustment from 1.5 m to infinity.

The "Auto-Focus on Demand" lets the camera control the focus at the push of a button.

The lens design incorporates oil-free, low-friction surfaces with special coatings, high-speed motors with zero backlash and high-precision feedback potentiometers. This design was chosen to meet the highest standards for precision and accuracy, with minimal failure rates.

Stay on target with precise bore-sight retention

The Magnix Naval CCD-200 has factory pre-aligned bore sighting, aligned in parallel with the optical reference axis of the system. This makes for easy onsite installation.

Typical bore sighting deviation is ± 0.1 milliradians, the equivalent to staying within a target area of 0.1 m, at a distance of 1 km in NFOV.

Expanded Hi-Dynamic Range (XDR)

XDR is useful in conditions where there are large variations in the brightness of a picture, for example, when there are very dark and very bright areas in the picture. XDR amplifies the signal level in dark areas and reduces it in very bright areas, thereby improving the visibility in the picture.

Graphic Overlays

The system has a built-in graphic overlay generator that allows arbitrary graphic overlays to be inserted into the image output. Typical overlays are text strings, showing azimuth, elevation, GPS data or status of weapon systems and symbols, such as hair crosses or other reticules. Programming the graphic overlay engine is done via the RS-422 / CAN-BUS interface. Graphic overlays can be customized to suit specific user requirements. Below is a typical example of a graphic overlay:



Photo by Tracy O / CC BY



Magnix Naval CCD-200 Mid-range RWS Camera System

Fog penetration

The fog penetration function is designed to automatically increase visibility under conditions such as fog, haze and fire smoke. The camera continuously analyses the picture and once it detects a low-contrast condition, it will automatically enhance the contrast.

Digital Noise Reduction (DNR)

The Digital Noise Reduction in the Magnix Naval 12200/336W camera system is a function that analyses the video image and reduces the noise, particularly in low-light conditions. The analysis is based on a 2- and 3-dimensional algorithm.

Visual Range Performance



Conditions for SSIP CAM program: Visual band 400-1000nm, Contrast 30%, Over cast daylight, Sky ratio 3, Visibility 3km, 50% probability Dimensions Man: $0.45m \times 1.7m$. Vehicle dimensions NATO target $2.3m \times 2.3m$



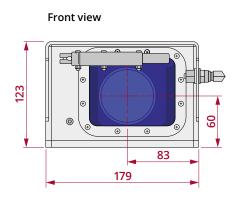


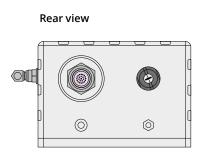


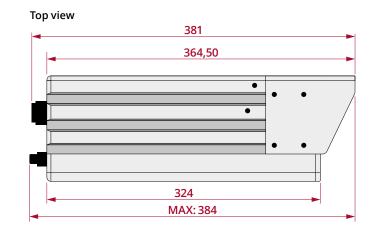
Coastal surveillance

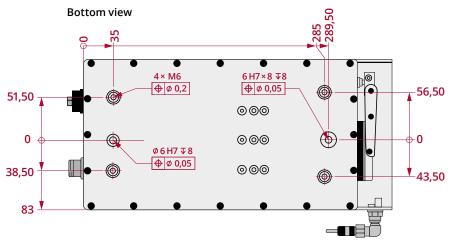
Naval surveillance

Mechanical outline and dimensions











Magnix Naval v.01.16

Magnix Naval CCD-200

Mid-range RWS Camera System

Technical Specifications

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In accordance with MIL-STD-810E torage temperature -40°C to +70°C ibration Wheeled vehicle MIL-STD 810G hock 30g at 11ms	•	-	
torage temperature -40°C to +70°C ibration Wheeled vehicle MIL-STD 810G hock 30g at 11ms			
ibration Wheeled vehicle MIL-STD 810G hock 30g at 11ms	_		
hock 30g at 11ms	- -		
· · · · · · · · · · · · · · · · · · ·			
perating voltage 50,000 flours (MIL-FIDDN-217-F)		-	
	Operating voitage	50,000 Hours (MIL-H	DDN-21/-F)

 $[*]Specifications\ are\ subject\ to\ change,\ without\ prior\ notice.$

