



Striking, yet unobtrusive appearance

DSP technology for highest quality images day and night

MPEG4 ISO/IEC 14496-2 ASP encoding

Now with electronic image stabilization

Unique polygon masking allows precisely defined privacy zones

High speed positioner can be operated inverted

A vertical tilt range greater than standard pan and tilts

Video analytic processing available

SDK kit available for third-party software integration



APPLICATIONS

- **General Surveillance & Monitoring**
- **Traffic Management**
- **Access Control**

i-view^{II}.net is fast becoming the new standard in high performance CCTV cameras and, with the addition of progressive new features, offers even more value and imaging advantages. This integrated camera/positioner provides what you can always expect from Cohu Electronics: quality, affordability, and style. *i-view^{II}.net* has the right options and features to complete an individual site or a whole system.

Compass Setting and Display. Camera direction can be identified in 8 or 16 compass positions, with the ability to set the true north position. Plus, absolute scene position can be displayed in degrees, if desired.

Image stabilization. Two frequency operating modes provide stable, jitter-free video under adverse conditions.

Digital position feedback. Each *i-view^{II}.net* site can provide the precise camera and positioner data to system management software.

There is a wide range of DSP functions to support the particular camera site, including privacy zones, image manipulation and backlight control.

Higher standards. Look beyond its striking appearance. Cohu designed this next generation camera and positioning system to meet the technical objectives of security professionals.

The *i-view^{II}.net* contains a high performance color DSP camera with integrated lens, a built-in camera control receiver, and a pan/tilt mechanism that is both attractive yet unobtrusive. Its sleek design allows for quick and easy mounting, and is unassuming in any installation.

Because it's made by Cohu Electronics, the camera is protected by our legendary sealed and pressurized camera enclosure that protects your investment in good video by eliminating intrusion of water, pollutants and corrosives that degrade the camera. The camera enclosure is rated IP67. The positioner unit is rated IP66 and complies with NEMA TS2 environmental, electrical, and shock/vibration specifications. Cohu guarantees years of clean, reliable images and backs it with a world-class warranty.

Unlike ordinary sunshields, the *i-view^{II}.net* sunshield is pre-positioned and needs no adjustments – reducing installation costs and maximizing performance.

3980 Series

i-view^{II}.net Integrated Positioner, Camera & Control

Extended Zoom Range

The *i-view^{II}.net* camera features a 35x optical zoom range (3.4 mm to 119 mm), with selectable automatic or manual focus. With its high resolution (520 HTVL) the *i-view^{II}.net* is ready to produce clear images of just about anything within its field of view.

Day/Night Camera Technology

Automatic Day/Night switching technology assures vivid color images during daylight, and high sensitivity monochrome images after dark. This greatly extends the nighttime or low-light capability of the camera.

Fast Positioning

A high-speed positioner provides 360° continuous rotation and up to 63 user-defined preset positions.

Image Stabilization

i-view^{II}.net uses real time computer algorithms to correct for shaking and waving images caused by wind and vibration. The two modes of stabilization settings, 5 Hz and 16 Hz, allow a wide range of vibration compensation. In addition to the clear image, this option also allows the system designer to potentially specify lighter and less-rigid poles, or utilize existing bridge signs and traffic lights.

Video Analytics

The *i-view^{II}.net* can be configured with video analytics to create a complete surveillance tool that incorporates detection and notification with minimal human intervention. Video analytics can detect and alert an operator on any combination of predefined suspicious events, such as motion, object types (humans, vehicles, etc.), movement in any predefined condition, or when static changes occur in a scene (stopped car, unattended baggage, etc.)

Bandwidth Efficiency

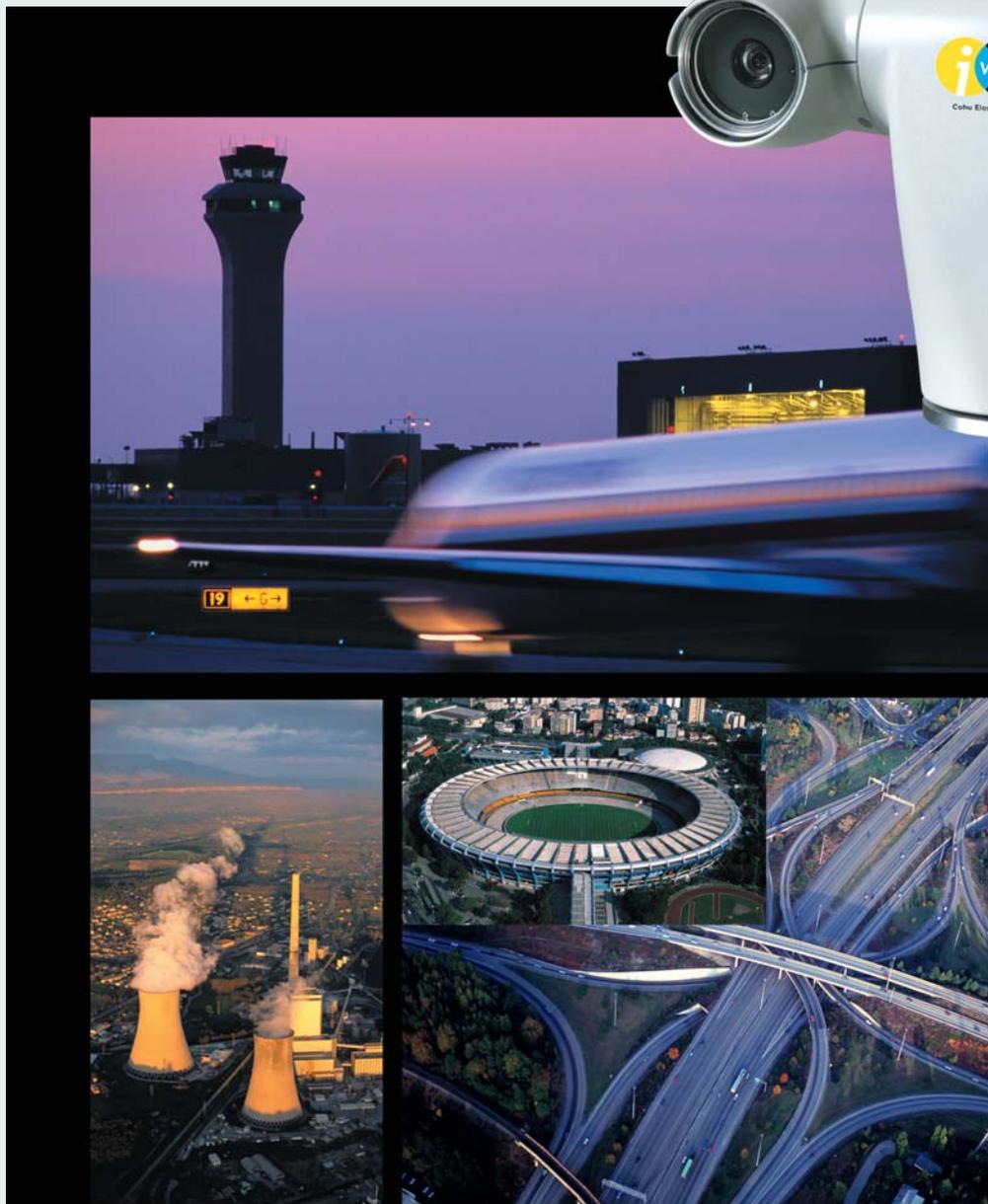
MPEG4 encoding provides the best quality video with the most efficient bandwidth utilization. The user settings (data mode, frame rate, and resolution) further allow the operator to achieve maximum video streaming within the network environment.

Touring, Sector IDs, and Privacy Zones

Up to eight tours, each with up to 32 preset positions and dwell time, can be stored in memory. Set up to sixteen sectors in a horizontal plane, each with its own identification title. Eight programmable privacy zones can be set to prevent the viewing of selected scenes. Precision video masking allows up to 64 polygons to be defined, with scalable masking based on zoom lens position (rubber banding). A “freeze frame” selection between preset positions gives operators a clean transition between scenes.

Built for the Not-So-Great Outdoors

The *i-view^{II}.net* housing provides a low profile installation that creates very low wind loading. The camera enclosure is sealed and pressurized to provide maximum protection against grime and insects. It is rated IP67 and NEMA 4X and, additionally, meets NEMA power and operating temperature standards for TS-2 traffic control systems.



The *i-Series* Cameras are ideally suited to a wide variety of critical monitoring and surveillance applications.

3980 Series Specifications

SYSTEM SPECIFICATIONS

Pan/Tilt Drive

Angular Travel

360° continuous pan range,
-90° to +90° tilt range

Pan Speed (preset)

140°/sec

Pan Speed (manual)

0.1° to >80°/sec

Tilt Speed (preset)

140°/sec

Tilt Speed (manual)

0.1° to >40°/sec

Preset Accuracy

>0.25°

Presets

64 preset positions (each preset includes pan, tilt, zoom and focus coordinates and 24 character ID label)

Video Tours

8 tours, each consisting of 32 presets with dwell time per preset per tour

Sector Zones

Up to 16 programmable zones in the horizontal plane

Privacy Zones

8 programmable zones can be set for video blanking

Privacy/Masking Zones

Supports 64 polygon mask areas. Each polygon mask can be turned on/off at a user-defined zoom position. All video below and above user-defined tilt angle can be masked. Masking areas adjust in size relative to the zoom magnification

Compass Direction

8 or 16 direction points (i.e.: north, NE, east, SE, south, SW, west, and NW) can be displayed. Function can be on/off, 3-sec. time out or permanent

Absolute Position

Displayed in 0-359° AZ and +95° to -95° EL. Function can be on/off, 3-sec. time out or permanent

Cloning

Positioner settings (presets, title, etc.) can be stored to file for easy duplication

Title Generation

Camera ID

2 lines of 24 characters

Preset ID

1 Line of 24 characters

Sector Zone

1 line of 24 characters per zone

Privacy Zone

1 line of 24 characters per zone

Low Pressure Alarm Label

1 line of 24 characters

Compass/Position

1 line, includes compass direction and absolute position

Inverted Operation

Can be mounted in an inverted position. Software setting compensates image and control for inversion

CAMERA

Imager

1/4" color, interline transfer CCD, progressive scan

Resolution

520 horizontal TV lines

Pixels

768 x 494

Lens Zoom

3.4 to 119 mm; f1.4 (w) f 4.2 (t)

Lens Horiz. Angle of view

55.8° (w) 1.7° (t)

Iris/Focus/Shutter Operation

Auto/Manual

Wide Dynamic Range

On/off

EIS @ 5 Hz Suppression

20dB suppression from 3-13 Hz

EIS @ 16 Hz Suppression

20dB suppression from 7-17 Hz

Digital Zoom

Auto/Manual (12X), not supported in EIS

White Balance

Auto/Manual

Sync

Xtal/Phase adjust line lock

SNR

>50 dB

Sensitivity (scene)

1.0 lux @ 1/60 sec. (color day);
0.1 lux @ 1/4 sec. (color day);
0.01 lux @ 1/4 sec. (mono night)

VIDEO PROCESSING

VLW/DSP

TI TMS320DM642-600

Video Encoding

MPEG 4 ISO/IEC 14496-2 ASP,
RTP/UDP stack

Resolution

720 x 480 (D1); 640 x 480 (VGA);
640 x 240 (2CIF); 320 x 240 (CIF)

Frame Rates

30/15/8/4/2/1

Bit rates

Constant: 3 Mbps
Variable: 8 Mbps

Data Encoding

RTSP/TCP/IP stack

Image Memory

96 MB SDRAM

Network

100Base T Fast Ethernet connection

Image Storage

1 to 30 minutes, depending on image management settings

Logo Insertion

Supports .bmp image insertion for logo

ELECTRICAL

Power Input

89 VAC to 135 VAC, 120 VAC nominal 60Hz.
Conforms to NEMA TS2 para. 2.1.2.
24 VAC also available

Power Consumption

54 W max; 154 W max with p/t heater (NEMA 4X icing option)

Power Interruption

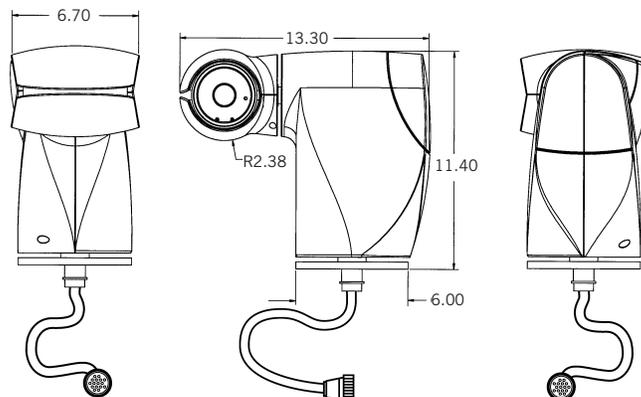
Conforms to NEMA TS2 para. 2.1.4

Power Transients/Interruptions

Conforms to NEMA TS2 para 2.1.6

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DIMENSIONS in inches



3980 Series Specifications (continued)

COMMUNICATIONS

Data Format

IEEE 802.3U

PTZ Latency

<200ms (typical)

Protocol

Cohu, NTCIP (future)

Firmware

Stored in flash memory; upload via Ethernet port

MECHANICAL

Weight

18.5 lbs (8.4 kg)

Dimensions

see diagram

Connector

18-pin MS

ENVIRONMENTAL

Protection Rating

IP-67 and NEMA 4X; Camera housing sealed and pressurized to 5 psi with dry nitrogen.
IP-66 pan/tilt assembly

Ambient Temp. Limit

Operating: -34 to 50° C (-27 to 122° F)
Storage: -40 to 85° C (-40 to 185° F)
Conforms to NEMA TS2 para. 2.1.5.1

Humidity

Up to 100% relative humidity

Vibration

Conforms to NEMA TS2, para. 2.1.9

Shock

Conforms to NEMA TS2, para. 2.1.10

Altitude

Sea level to equivalent of 3,000m/10,000 feet (508mm/20 inches of mercury)

Acoustic

Can withstand environments greater than 150 dB continuously for 30 minutes

EMI

FCC rules, Part 15, Subpart J, for Class B devices

ORDERING INFORMATION

398X - XXX / XXXX

Power

4 - 24 VAC
5 - 115 VAC

Video

5 - Day/Night with 35X zoom and electronic image stabilization

Output Delivery

9 - MPEG4 ISO/IEC 14496-2 (Advanced Simple Profile)

Options

0 - None
1 - P/T Heater option (NEMA4X icing)
2 - Wiper option
3 - P/T Heater and Wiper option

Mount

PEDD - Pedestal, small base
LPED - Pedestal, large base
WALL - Wall mount

POLE - Pole mount
CONR - Corner mount
PARP - Parapet mount



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