IDE20 Series Sarix™ EP Network Indoor Fixed Dome

2.1 MEGAPIXEL EXTENDED PLATFORM HIGH DEFINITION INTEGRATED CAMERA

Product Features

- Up to 2.1 Megapixel Resolution (1920 x 1080)
- Up to 30 Images per Second (ips) at 1920 x 1080
- Optional CS-Align Lenses
- Auto Back Focus for High Precision Focusing
- Easy, Quick, One-Handed Installation
- H.264 and MJPEG Compression
- Day/Night Capability
- Sensitivity Down to 0.03 lux
- Power over Ethernet (IEEE 802.3af) or 24 VAC
- Urban Setup Jack and Focus Button Accessible with Dome Closed
- Up to 2 Simultaneous Video Streams
- Web Viewing, up to 16 Cameras Simultaneously
- Local Storage (Micro SD) for Alarm Capture
- Open IP Standards
- Pelco Camera Sabotage Detection Analytics

The IDE20 Series extended platform (EP) camera with Sarix™ technology is a 2.1 megapixel (MPx) network indoor fixed dome camera designed with industry-leading image quality and high performance processing power. Designed to install quickly and easily, all of the post back-box installation and setup can be done with one hand.

Sarix technology defines the next generation of video security imaging performance, delivering high definition (HD) resolution, advanced low-light capabilities, consistent color science, and fast processing power. The H.264 compression video files are up to 20 times smaller making high definition video more affordable.

Fixed Dome Camera

The IDE20 Series can be ordered with or without lenses. All models include a camera in an indoor enclosure that is ready to install. These cameras accept a wide range of megapixel varifocal CS-mount lenses.

The IDE20 Series supports two simultaneous video streams. The two streams can be compressed in MJPEG and H.264 formats across several resolution configurations. The extended platform gives real-time video (30 ips) with full HD resolution using H.264 compression for optimized bandwidth and storage efficiency. The streams can be configured in a variety of frame rates, bit rates, and group of pictures (GOP) structures for additional bandwidth administration.

The IDE20 Series is simple to install, and the automatic back focus control feature makes sharp scene focus setup easy. A convenient video setup jack eliminates the need to use a laptop for viewing video when installing the camera.

Built-In Analytics

Pelco® Analytic Suites and ObjectVideo® (OV) Analytic Suites enhance the flexibility and performance of the IDE20 Series camera. Pelco’s Camera Sabotage analytic is a standard feature of seven models, including the IDE20DN-0, IDE20DN-1, IDE20DN8-1 and all models that are preloaded with Pelco Analytic Suites. IDE20 Series models are also available preloaded with OV Analytic Suites.

Pelco Analytic Suites are easy to configure for alarm notification when used with Endura® or a third-party system that supports Pelco’s Analytics API. OV Analytic Suites offers rule configurations and alarm notifications that are easy to enable when using OV Ready™ systems.

Web Interface

The IDE20 Series uses a standard Web browser for powerful remote setup and administration. Up to 16 cameras can be viewed on the same network.

Video Systemization

The IDE20 Series easily connects to Pelco IP and hybrid systems such as Endura version 2.0 (or later) and Digital Sentry® version 4.2 (or later). The camera also features open architecture connectivity to third-party software. Pelco offers an application programming interface (API) that enables third-party systems to interface with Pelco’s network cameras.
PelecO Analytic Suite

The Pelco Object Suite includes Camera Sabotage, Abandoned Object, Object Counting, and Object Removal behaviors in an intuitive, easy to use package.

- **Abandoned Object** detects and tracks objects that enter a scene and then triggers an alarm if the object remains in the zone longer than the user-defined time allows. An air terminal is a typical installation for this behavior. Include an alarm if the object remains in the zone longer than the user-defined time allows.
- **Abandoned Motion** generates an alarm in a high traffic area when an object moves in the wrong direction. Operators can switch the profile to Abandoned Motion to trigger an alarm if a camera is moved or obstructed.
- **Abandoned Object** detects objects placed in a defined area. This behavior is ideal for detecting the removal of high value objects, such as paintings or statues. It also triggers an alarm if the object remains in the zone longer than the user-defined time allows.
- **Inside Area** identifies objects entering, appearing, or moving within a user-defined area.
- **Camera Tamper Detection** identifies significant contrast changes in the camera field of view. If the lens is obstructed by spray paint, a cloth, or covered with a lens cap, the behavior triggers an alarm. It also triggers an alarm if there is any unauthorized movement of the camera.
- **Dwell Time Monitoring** can be scheduled to work during a certain time or condition. For example, during the day, a camera can be programmed with Object Counting to count the number of people that enter a lobby door. At night, the operator can switch the profile to Camera Sabotage to trigger an alarm if a camera is moved or obstructed.

ObjectCounting

- **Tripwire Detection** identifies objects that cross a user-defined line drawn within the camera’s field of view. Defined parameters for this behavior include direction, sequential order, and time between crossing each tripwire.
- **Loitering Detection** identifies objects that remain within a defined area beyond a specified period of time. This behavior is effective for real-time notification of suspicious behavior around ATMs, front doors, and school grounds.
- **Leave Behind Detection** detects objects placed in a defined zone and triggers an alarm if the object remains in the zone longer than the user-defined time allows.

DwellTime Monitoring

- **Tripwire Counting** calculates the number of people that enter an area without using a tripwire.
- **Dwell Time Monitoring** can be used to evaluate consumer interaction for a point-of-sale display or digital advertisement.

ObjectVideo Analytic Suite

- **ObjectVideo Analytics Suite** are preloaded on selected ICX20 Series cameras and require an OV Ready system to configure the behaviors for alarm notification.
- **OV Security Suite** includes behaviors for Tripwire Detection, Inside Area Detection, and Camera Tamper Detection.
- **OV Security Suite Plus** includes all the behaviors of the OV Security Suite, plus Multi-Line Tripwire Detection, Loitering Detection, and Leave Behind Detection.
- **OV Event Counting Suite** uses advanced object calibration and additional features for schedules, parameters, and multiple rules. The suite includes behaviors for Tripwire Counting, Enters/Exits Counting, Litter Counting, Occupancy Sensing, and Dwell Time Monitoring.
- **Dwell Time Monitoring** can be used to record the length of time between when an object enters and then exits an area. Along with queue size information, wait times can also be assessed. This behavior can be used to evaluate consumer interaction for a point-of-sale display or digital advertisement.
The following diagram illustrates how the camera system interprets streaming video when embedded analytics are configured and enabled.

**IMPORTANT NOTE PLEASE READ.** The network implementation is shown as a general representation only and is not intended to show a detailed network topology. Your actual network will differ; requiring changes to purchase additional network equipment to accommodate the system as illustrated. Please contact your local Pelco Representative to discuss your specific requirements.
TECHNICAL SPECIFICATIONS

GENERAL

Imaging Device: 1/3-inch (effective)
Imager Type: CMOS
Imager Readout: Progressive scan
Maximum Resolution: 1920 x 1080
Signal-to-Noise Ratio: 50 dB
Auto Iris Lens Type: DC drive
Electronic Shutter Range: 1 to 1/100,000 sec
Wide Dynamic Range: 60 dB
White Balance Range: 2,000° to 10,000°K
Sensitivity: f/1.2; 2,850K; SNR >24 dB
Color (1x/33 ms): 0.5 Lux
Color SENS (15x/500 ms): 0.12 Lux
Mono (1x/33 ms): 0.25 Lux
Mono SENS (15x/500 ms): 0.03 Lux
Dome Attenuation:
   Clear: Zero light loss
   Shaded: 0.1% light loss
Construction:
   Back Box: Cast aluminum
   Trim Ring: Polycarbonate plastic
   Bubble: Acrylic plastic
   Finish: White
Weight (without lens):
   Unit: 2.0 lb (0.9 kg)
   Shipping: 5.0 lb (2.3 kg)
Available Languages: Chinese, English, French, German, Italian, Portuguese, Russian, Spanish, and Turkish

ELECTRICAL

Port: RJ-45 connector for 100Base-TX
Auto MDI/MDI-X
Cable Type: Cat5 or better for 100Base-TX
Power Input: 24 VAC or PoE (IEEE 802.3af class 3)
Power Consumption:
   PoE: <200 mA maximum
   24 VAC: <235 mA minimum; <280 mA maximum
Local Storage: Micro SD
Alarm Input: 0 to 10 VDC maximum, 75 mA maximum
Alarm Output: 0 to 10 VDC maximum, 75 mA maximum
Service Connector: External 3-conductor, 2.5 mm provides NTSC/PAL video output
Accessory Port: Connects Pelco accessories

MECHANICAL

Lens Mount: CS mount, adjustable
Pan/Tilt Adjustment:
   Pan: 360°
   Tilt: 160° (10° to 170°)
   Tilt: 150°

ENVIRONMENTAL

Operational Temperature: 32° to 122°F (0° to 50°C)
Operational Humidity: 20% to 80%, noncondensing
TECHNICAL SPECIFICATIONS

VIDEO
Video Encoding H.264 high, main, or baseline profile and MJPEG
Video Streams Up to 2 simultaneous streams; the second stream is variable based on the setup of the primary stream
Frame Rate Up to 30, 25, 24, 15, 12.5, 12, 10, 8, 7.5, 6, 5, 4, 3.2, 1 (dependent upon coding, resolution, and stream configuration)

Available Resolutions

<table>
<thead>
<tr>
<th>Resolution</th>
<th>MJPEG</th>
<th>H.264 High Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPx Width</td>
<td>Height</td>
<td>Aspect Ratio</td>
</tr>
<tr>
<td>2.1</td>
<td>1920</td>
<td>1080</td>
</tr>
<tr>
<td>1.9</td>
<td>1600</td>
<td>900</td>
</tr>
<tr>
<td>1.2</td>
<td>1280</td>
<td>720</td>
</tr>
<tr>
<td>0.8</td>
<td>800</td>
<td>600</td>
</tr>
<tr>
<td>0.3</td>
<td>640</td>
<td>480</td>
</tr>
<tr>
<td>0.1</td>
<td>320</td>
<td>240</td>
</tr>
</tbody>
</table>

Additional Resolutions
- 640 x 1280, 640 x 1024, 480 x 1024, 480 x 384, 480 x 272, 320 x 240, and 320 x 176

Supported Protocols
- TCP/IP, UDP/IP (Unicast), Multicast (UPnP), UPnP, DNS, DHCP, RTSP, RTP/RTSP, NTP, P4, SNMP, OVR, HTTP, HTTPS, LDAP (client), SSH, SSL, SMTP, FTP, MDNS (Bonjour)

Users
- Unicast: Up to 20 simultaneous users
- Multicast: Unlimited users H.264

Security Access
- Password protected

Software Interface
- Web browser view and setup, up to 16 cameras

Pelco System Integration
- Pelco 2.0 (on latest) or Digital Sentry 4.2 (on later)

Open IP Integration
- Pelco IP camera API

Min. System Requirements
- Processor: Pentium® 4 microprocessor, 1.6 GHz
- Operating System: Microsoft® Windows® XP, Windows Vista®, or Mac® OS X 10.4 (or later)
- Memory: 512 MB RAM
- Network Interface Card: 100 megabits (or greater)
- Monitor: Minimum of 1024 x 768 resolution, 16- or 32-bit pixel color resolution
- Web Browser: Internet Explorer® 7.0 (or later) or Mozilla® Firefox® 3.0 (or later)
- Media Player: QuickTime® 7.5 (or later)
MODELS

IDE20DN-0 Sarix indoor fixed dome network camera, extended platform, 2.1 megapixel, day/night, no lens, smoked dome
IDE20DN-1 Sarix indoor fixed dome network camera, extended platform, 2.1 megapixel, day/night, no lens, clear dome
IDE20DN8-1 Sarix indoor fixed dome network camera, extended platform, 2.1 megapixel, day/night, 2.8~8 mm varifocal megapixel lens, clear dome
IDE20DN-0CP0 Sarix indoor fixed dome network camera, extended platform, 2.1 megapixel, day/night, no lens, smoked dome, with built-in ON Event Counting Plus Suite
IDE20DN-0S0 Sarix indoor fixed dome network camera, extended platform, 2.1 megapixel, day/night, no lens, smoked dome, with built-in ON Security Suite
IDE20DN-0SP0 Sarix indoor fixed dome network camera, extended platform, 2.1 megapixel, day/night, no lens, smoked dome, with built-in ON Security Plus Suite
IDE20DN-PM0 Sarix indoor fixed dome network camera, extended platform, 2.1 megapixel, day/night, no lens, smoked dome, with built-in Pelco Motion Suite
IDE20DN-PO0 Sarix indoor fixed dome network camera, extended platform, 2.1 megapixel, day/night, no lens, smoked dome, with built-in Pelco Object Suite
IDE20DN-0CPF1 Sarix indoor fixed dome network camera, extended platform, 2.1 megapixel, day/night, no lens, clear dome, with built-in ON Event Counting Plus Suite
IDE20DN-0SF1 Sarix indoor fixed dome network camera, extended platform, 2.1 megapixel, day/night, no lens, clear dome, with built-in ON Security Suite
IDE20DN-0SFP1 Sarix indoor fixed dome network camera, extended platform, 2.1 megapixel, day/night, no lens, clear dome, with built-in ON Security Plus Suite
IDE20DN-PM1 Sarix indoor fixed dome network camera, extended platform, 2.1 megapixel, day/night, no lens, clear dome, with built-in Pelco Motion Suite
IDE20DN-PO1 Sarix indoor fixed dome network camera, extended platform, 2.1 megapixel, day/night, no lens, clear dome, with built-in Pelco Object Suite

CERTIFICATIONS/RATINGS/PATENTS
- CE, Class B*
- FCC, Class B*
- UL, cUL listed*
- C-Tick*
- Patents Pending*

*As of the date of this publication, these certifications and patents are pending. Please consult the factory, our Web site at www.pelco.com, or the most recent B.O.S.S.® update for the current status of certifications.

OPTIONAL ACCESSORIES
- IID-P Pendant mount
- SWMA-WT Wall mount for pendant
- SWMA-CANT Corner adapter for wall mount
- SWMA-PALT Pelco adapter for wall mount
- ID-CB Panel rated conduit box
- IS-SC 4-foot service/monitor cable, compatible with any standard monitor BNC connector
- POE20US80G Single-port PoE injector

RECOMMENDED LENSES
1.3M2.2-6 Megapixel lens, varifocal, 2.2~6.0 mm, f/1.3~2.0
1.3M2.8-8 Megapixel lens, varifocal, 2.8~8.0 mm, f/1.2~1.9
1.3M2.8-12 Megapixel lens, varifocal, 2.8~12.0 mm, f/1.4~2.7
1.3M15-50 Megapixel lens, varifocal, 15.0~50.0 mm, f/1.5~2.1

Pelco lenses have been designed and tested to deliver optimal image quality for the IDE20 Series megapixel cameras. The use of standard definition lenses on IDE20 Series will limit the resolution of the camera, creating poor image quality.

Field of View in Degrees

<table>
<thead>
<tr>
<th>Field of View</th>
<th>2.2 mm</th>
<th>2.8 mm</th>
<th>6.0 mm</th>
<th>8.0 mm</th>
<th>12.0 mm</th>
<th>15.0 mm</th>
<th>50.0 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspect Ratio</td>
<td>16:9</td>
<td>4:3</td>
<td>5:4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horizontal</td>
<td>109</td>
<td>89</td>
<td>42</td>
<td>32</td>
<td>12</td>
<td>16</td>
<td>5</td>
</tr>
<tr>
<td>Vertical</td>
<td>63</td>
<td>80</td>
<td>42</td>
<td>24</td>
<td>21</td>
<td>16</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: For 800 x 600 (or lower) resolutions in 4:3 or 5:4 aspect ratios, the field of view is smaller than listed above. Refer to the Installation/Operation manual for details.