# D-Link®

**SECURICAM**

——— DCS-3220G

# Wireless Digital Zoom Internet Camera
## With High-Quality CCD Sensor, 2-Way Audio & High-Speed 802.11g WLAN

The DCS-3220G Wireless Internet Camera is a versatile security system that allows you to watch, listen and talk remotely. This full-featured camera connects to an Ethernet and wireless networks in a building or campus, and to broadband Internet. Equipped with a high-quality CCD sensor, zoom, 2-way audio capability and advanced software functions for multi-camera monitoring and management, this camera provides a comprehensive system for surveillance from both a local or remote site through the web.

### Stand-alone System With Integrated Web Server
The DCS-3220G Internet Camera comes with a built-in CPU and Web server, providing a low-cost solution for home, office and factory security monitoring needs. Its integrated Web server eliminates the need to connect the camera to a computer. Once installed, you use the built-in IP address to gain access to the camera, view live streaming video, and make changes to camera settings.

### High-Quality Video With CCD Sensor & Digital Zoom
The DCS-3220G uses MPEG-4 Simple Profile Mode to stream live video at up to 30 frames per second for real-time viewing. A CCD sensor provides sharp video images with lifelike color representation. The camera also features 4x digital zoom for close-up viewing using the Web interface. * Plus, with low light sensitivity, it has the capability to monitor and record video in rooms with minimal lighting, making it ideal to use at night.

### Watch, Listen & Talk Remotely
Through a built-in microphone, you can watch and listen remotely as the DCS-3220G captures both sound and video of your site. Directly connected to a local network or the Internet without going through any computer, this camera easily integrates with your network environment. This camera takes surveillance to another level using 2-way audio. By adding a powered speaker to the DCS-3220G, you can now remotely talk to anyone at your camera site.

### Multi-Camera Monitoring
Surveillance software is included to let you view up to 16 cameras on a single computer screen at one central location. Images can be recorded to your computer's hard drive manually or according to a pre-set schedule. The camera can be connected to external alarms and sensors, and you can set up automated email alerts for sending through the Internet to alarm you instantly of all unusual happenings.

### Motion Detected Recording
Instead of recording 24 hours a day, 7 days a week, images can also be recorded only when motions are detected. This saves disk space and eliminates the time wasted to view unnecessary images. Images can be directly archived straight to your computer hard drive or to Network Attached Storage. Playback consumes little time with triggered event browsing and fast database searching.

### Wireless and Ethernet Connection
For effective surveillance in and around a building, this camera comes with a built-in high-speed 802.11g wireless network interface, allowing images to be transmitted at up to 54Mbps wireless speed. In addition, a 10/100BASE-TX Ethernet port is also provided for convenient connection to an Ethernet network or to a broadband Internet via a home gateway router.

### Easy Deployment
Everything needed to get started is included with the DCS-3220G Internet Camera. Simple installation procedures, along with the built-in Web-based interface, offer easy integration into your network environment. The DCS-3220G adheres to the Universal Plug-n-Play specification, which allows computers running Windows XP/ME to automatically recognize the camera and add it to the network. The DCS-3220G can be accessed and viewed from any network places as a device on the network.

By signing up with one of the many free Dynamic DNS services available on the Web, you can assign an easy-to-remember name and domain to the camera (e.g. www.mycamera.myddns.com). This allows you to remotely access your camera without having to remember the IP address, even if your Internet Service Provider has changed it.

## Key Features

- Stand-alone Internet camera with CPU & RAM, no need to attach to PC
- Local access through Ethernet and built-in high-speed 802.11g wireless LAN
- Remote access through Internet
- 4x digital zoom for close-up viewing *
- Listen and talk with 2-way audio **
- Surveillance software to control up to 16 cameras
- Motion detection triggered recording or scheduled recording
- Smart playback
- High compression ratio recording

- Connects to external devices for alarm-based event recording when trigger is activated
- Implemented for intruder detection with still image capture & e-mail notification
- Powerful software for image capture & video recording
- Easy deployment with UPnP & DNS support, web-based configuration

*\* 4x digital zoom enlarges an image by magnifying the pixels in a selected portion of the image by 4 times.*
*\*\* 2-way audio requires a powered speaker to be connected to the camera (not included).*

# DCS-3220G

## Technical Specifications

### Camera

**Sensor**
- Built-in 1/4-inch CCD sensor
- Resolution: 380 TV lines
- Automatic Gain control (AGC): 24dB
- Automatic Exposure (AE)
- Automatic White Balance
- Electronic shutter: 1/60 or 1/50 to 1/10000 sec.
- Minimum Illumination: 1.0 ux @ f2.0

**Lens**
- CS mount type
- Fixed focal, (6mm, f1.8) with fine tuning

**LED indicator**
1 bi-color LED indicator for status indication (POST, connection, heartbeat)

**Reset button**
Push button to reset to factory default settings

**Extended I/O**
- 1 relay alarm output (max. 24V DC 1A, 125V AC 0.5A
- 1 Optic-isolated sensor input (max.12V DC 50mA)

**Memory**
- SDRAM: 16Mbytes
- Flash ROM: 4Mbytes

### Video

**Resolution**
- Up to 30fps at 176 x 120 (NTSC)
- Up to 30fps at 352 x 240 (NTSC)
- Up to 10fps at 704 x 480 (NTSC)

**Modulation**
NTSC and PAL (different CCD sensors supporting NTSC or PAL in different camera models)

**Format**
- MPEG4 simple profile compression for streaming video
- JPEG compression for still image
- Compression ratio: 5 levels
- Max. image frame rate: 30fps (NTSC), 25fps (PAL)
- Adjustable image size, quality and bit-rate
- Time stamp and text overlay

**Compression Options**
Medium, standard, good, detailed, excellent (user-selectable)

**Video Sizes**
QSIF/QCIF, SIF/CIF, 4SIF/4CIF (user-selectable)

**Information Display**
Image can be overlaid with text, timestamp and motion detection window

**Color Modes**
Color mode, monochrome mode (user-selectable)

**Position**
Flip and mirror can adjust image position

**Image Settings**
Brightness, contrast, hue, saturation (user-adjustable)

**Zoom-In**
Seamless digital zoom function with up to 4x magnification

### Audio

**Audio Input**
Built-in omni-directional microphone with S/N more than 60dB

**Audio Output**
Microphone socket for lineout unbalanced 0.05 to 1.0 Vpp

**Format**
- Proprietary, 8Kbps audio codec
- 2-way audio, mono, supporting simplex, half-duplex, full-duplex modes

**Function**
- Can be muted at server side by administrator
  (camera microphone on/off)
- Can be muted at client side (PC speaker on/off)
- Adjustable audio volume (PC microphone on/off)

### Network

**Network Interfaces**
- 802.3/3u 10/100Mbps Ethernet
- 802.11g wireless LAN

**IP Installation**
IP address is installed at system reboot unless an option is set to fix it.

**Protocols and Applications**
- DDNS support with several famous DDNS servers
- UPnP support
- NTP client
- SMTP client
- FTP client
- FTP server
- FTP supports passive mode
- HTTP server: max. 10 users to view at the same time
- Adjustable server port

**Optional**
- IP filtering
- SMTP Authentication

### Motion Detection

**Configuration**
- 3 motion-detection windows
- 2 adjustable parameters: sensitivity and percentage

**Indicator**
When motion is detected, users can be informed from the image

### Extended I/O

**Digital Input**
- Status checking of high, low, rising, falling
- DI triggered or motion triggered alert and notified via FTP or e-mail

**Digital Output**
On/Off

### Built-in Wireless LAN

**Wireless LAN Standards**
- 802.11g
- 802.11b

**Data Rates**
- 802.11g: up to 54Mbps (6/9/12/18/24/36/48/54Mbps)
- 802.11b: up to 11Mbps (1/2/5.5/11Mbps)

**Transmission Technology**
DSSS

**RF Frequency Range**
2.4 to 2.4835GHz

**Operating Channels**
- 1 to 11 channels (FCC)
- 1 to 13 channels (ETSI)

**Data Modulation Type**
DBPSK, DQPSK, CCK, OFDM

**Antennas**
Dual 2dBi Gain external dipole antennas (reverse SMA connectors)

**Transmit Output Power**
16dBm (typical)

**Receive Sensitivity (for 802.11b)**
(Typically @PER < 8% packet size 1024 @ 25℃ +/- 5 ℃)
- 11Mbps (CCK): -82 dBm
- 5.5Mbps (CCK): -86 dBm
- 2Mbps (QPSK): -90 dBm
- 1Mbps (BPSK): -90 dBm

## Technical Specifications

**Receive Sensitivity (for 802.11g)**
(Typically @PER < 8% packet size 1024 @ 25 ℃ +/- 5 ℃)
- 54Mbps (OFDM): -66 dBm
- 48Mbps (OFDM): -64 dBm
- 36Mbps (OFDM): -70 dBm
- 24Mbps (OFDM): -72 dBm
- 18Mbps (OFDM): -80 dBm
- 12Mbps (OFDM): -84 dBm
- 9Mbps (OFDM): -86 dBm
- 6Mbps (OFDM): -88 dBm

**Operating Range ***
- Indoors: 100 meters
- Outdoors: 400 meters

*\* Environmental factors may adversely affect range.*

**Security**
- WEP 64/128-bit data encryption (user-selectable)

### Management & Viewing
**Remote Management**
Configuration can be accessed via Web browser

**Security**
- Administrator and user group protected
- Password authentication

**Viewing System Requirements**
- Protocol: ActiveX
- Operating System: Microsoft Windows XP, 2000, ME
- Browser: Internet Explorer v.6

### Physical & Environmental
**Power Input**
12VDC, 1.5A

**Power Supply**
Through external AC switching power adapter

**Power Consumption**
4.8 watts

**Dimensions**
135 (L) x 89 (W) x 57 (H) mm (6.25 x 3.25 x 2.12 inches) (camera only, excluding antennas)

**Weight**
240 grams (8.5 oz.) (camera only)

**Operation Temperature**
0° to 60 ℃

**Storage Temperature**
-30° to 75 ℃

**Humidity**
5% to 95% non-condensing

**Emission (EMI)**
- FCC Class B
- CE Class B

**Safety**
LVD (EN60950)

**Package Includes**
- DCS-3220G Wireless Internet Camera
- 12V/1.5A external power adapter
- Cat. 5 Ethernet cable
- Quick Installation Guide
- Master CD
- 2 dipole antennas
- Camera stand bracket

### Ordering Information

| DCS-3220G | Wireless Internet Camera with 10/100BASE-TX Ethernet and 802.11g WLAN interfaces |
|---|---|

*Please specify your order as follows:*

| | |
|---|---|
| **BDCS-3220G** | For USA (USA packaging) |
| **DCS-3220G/A** | NTSC TV format support, US standard power adapter |
| **DCS-3220G/B** | NTSC TV format support, UK standard power adapter |
| **DCS-3220G/E** | NTSC TV format support, EU standard power adapter |
| **DCS-3220G/N** | NTSC TV format support, China & Australia standard power adapter |
| **DCS-3220G/A (PAL)** | PAL TV format support, US standard power adapter |
| **DCS-3220G/B (PAL)** | PAL TV format support, UK standard power adapter |
| **DCS-3220G/E (PAL)** | PAL TV format support, EU standard power adapter |
| **DCS-3220G/N (PAL)** | PAL TV format support, China & Australia standard power adapter |

# D-Link®

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| **Canada** | TEL: 1-905-8295033 | FAX: 1-905-8295223 |
| **Europe (U. K.)** | TEL: 44-20-8731-5555 | FAX: 44-20-8731-5511 |
| **Germany** | TEL: 49-6196-77990 | FAX: 49-6196-7799300 |
| **France** | TEL: 33-1-30238688 | FAX: 33-1-30238689 |
| **Netherlands** | TEL: 31-10-282-1445 | FAX: 31-10-282-1331 |
| **Belgium** | TEL: 32(0)2-517-7111 | FAX: 32(0)2-517-6500 |
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| **Sweden** | TEL: 46-(0)8564-61900 | FAX: 46-(0)8564-61901 |
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| **Norway** | TEL: 47-23-897189 | FAX: 47-22-309085 |
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| **Hungary** | TEL: 36-(0)-1-461-30-00 | FAX: 36-(0)-1-461-30-09 |
| **Singapore** | TEL: 65-6774-6233 | FAX: 65-6774-6322 |
| **Australia** | TEL: 61-2-8899-1800 | FAX: 61-2-8899-1868 |
| **India** | TEL: 91-022-26526696 | FAX: 91-022-26528914 |
| **Middle East (Dubai)** | TEL: 971-4-3916480 | FAX: 971-4-3908881 |
| **Turkey** | TEL: 90-212-289-56-59 | FAX: 90-212-289-76-06 |
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| **Taiwan** | TEL: 886-2-2910-2626 | FAX: 886-2-2910-1515 |
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