NetCam-4 Series
Digital Network Cameras

- **1/3-inch Format CCD color camera**

- **Up to 720x486 resolution**

- **Wavelet compression**

- **TCP/IP protocols for communication on intranets and the internet**

- **10BaseT Ethernet output**

- **Integrated server for 3 additional cameras**

- **Internal HTML pages for viewing and administration**

- **Real time viewing in single or quad display**

- **Video motion detection and alarm contacts**

Philips introduces the NetCam-4 series of self-contained network cameras that comprise a high-resolution color camera, wavelet video compression, video motion detection and a network server for up to 100 simultaneous video streams. The NetCam-4 has inputs for three additional standard analog color cameras. Acting as a server for these additional cameras, the NetCam-4 will transmit the images of the 4 channels individually or in quad mode.

The network interface is compliant with 10baseT Ethernet and supports the TCP/IP set of communication protocols allowing communication on private networks, Intranets and the Internet.

Alarms can be triggered by the software video motion detector, or the 2 contact closure inputs. Once an alarm is generated, the camera will send alarm pictures to a predefined email address or upload the pictures to a file on a network server using FTP. The alarm also triggers an internal relay which can be used for switching external devices via the connections on the back of the camera.

The cameras have outputs for a video iris lens and serial outputs for control of Pan and Tilt units and Zoom lenses.

Security options include password access protection, IP address filtering and image encryption.

A PC with standard Internet Explorer or Netscape browser is used for viewing of the network camera images.

The user control functions enable the selection of individual images or a quad screen. The picture update rate, image resolution and image size are adjustable from the viewing location.

In order to enhance the picture update rate, a quality box can be defined for the area of interest. This part of the picture is transmitted at the selected picture quality, while the remainder of the picture is transmitted at reduced quality.

**Philips
Communication,
Security & Imaging**

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SPECIFICATIONS

ELECTRICAL

Model No.	Nominal voltage/power	Color system
NetCam-4 NTSC	12Vdc/8 W	NTSC
LTC 0204/10	12Vdc/8 W	PAL

Internal camera and video specification:

Imager: Interline transfer CCD 1/3-inch image format.

Active Picture Elements:
NTSC Models: 768 H x 492 V.
PAL B Models: 752 H x 582 V.

Sensitivity: 3 lux (0.3 fc)
1) for f/1.2 lens, 89% scene reflectance

Horizontal Resolution: 460 TVL.

Signal-to-Noise:
46 dB.(Unified weighting filter per CCIR Recommendation 567).

AGC: 18 dB.

Shutter speeds: Automatic; up to 1/100,000 sec.

White Balance: Auto tracking; 2500 K to 8,000 K.

Contouring: Horizontal and vertical symmetric,

Gamma: 0.45

Video output: Output 1 on a BNC; 1 Vpp into 75 ohms.

Video inputs:
Input 1, selected by switch (int/ext) on BNC 1
Input 2 – 4, on BNC 2 – 4:
1 Vpp, selectable 75Ω or high impedance

Lens:
CS-mount.

Video-iris: 12 Vdc 40 mA max.

Video level: 1.0 Vpp

Network
32bit RISC Embedded Processor

Flash memory: 8MB

RAM: 16MB

Operating System: Embedded Linux

Video Channel (Input / Output):
4 inputs, one internal camera one control output.
Selection internal/external camera and terminating/non-terminating inputs

Network protocols: TPC/IP, HTTP, ARP, RARP, ICMP, DHCP, FTP, SMTP

Network Line: 10 base-T Ethernet LAN

Compatible Browsers:
MS internet Explorer Ver 4.0 or later
Netscape Ver 4.5 or later
Java applet

Operating system: Windows 98/NT4 (Winsock2 required)

Image Resolution: 720X486, 720X243, 360X243, 180X121, 90X60

Image Compression:
Compression: Wavelet, Progressive mode
Compression Ratio: 10:1 ~200:1 (typical 30:1)

Frame Rate: Max 30 frame/sec

Performance:
Transfer Rate: Max 120fps,
Decoding Rate: 2~15fps,

Management and Software Update:
Remote system-configuration
Flash memory allows new version software updates through TCP/IP network

Security:
Password protection
IP Address Filtering

Alarms and I/O:
Motion detection (Activity detection)
Automatic e-mail and file transfer
Software-controlled relay output & 2 alarm inputs

Miscellaneous functions:
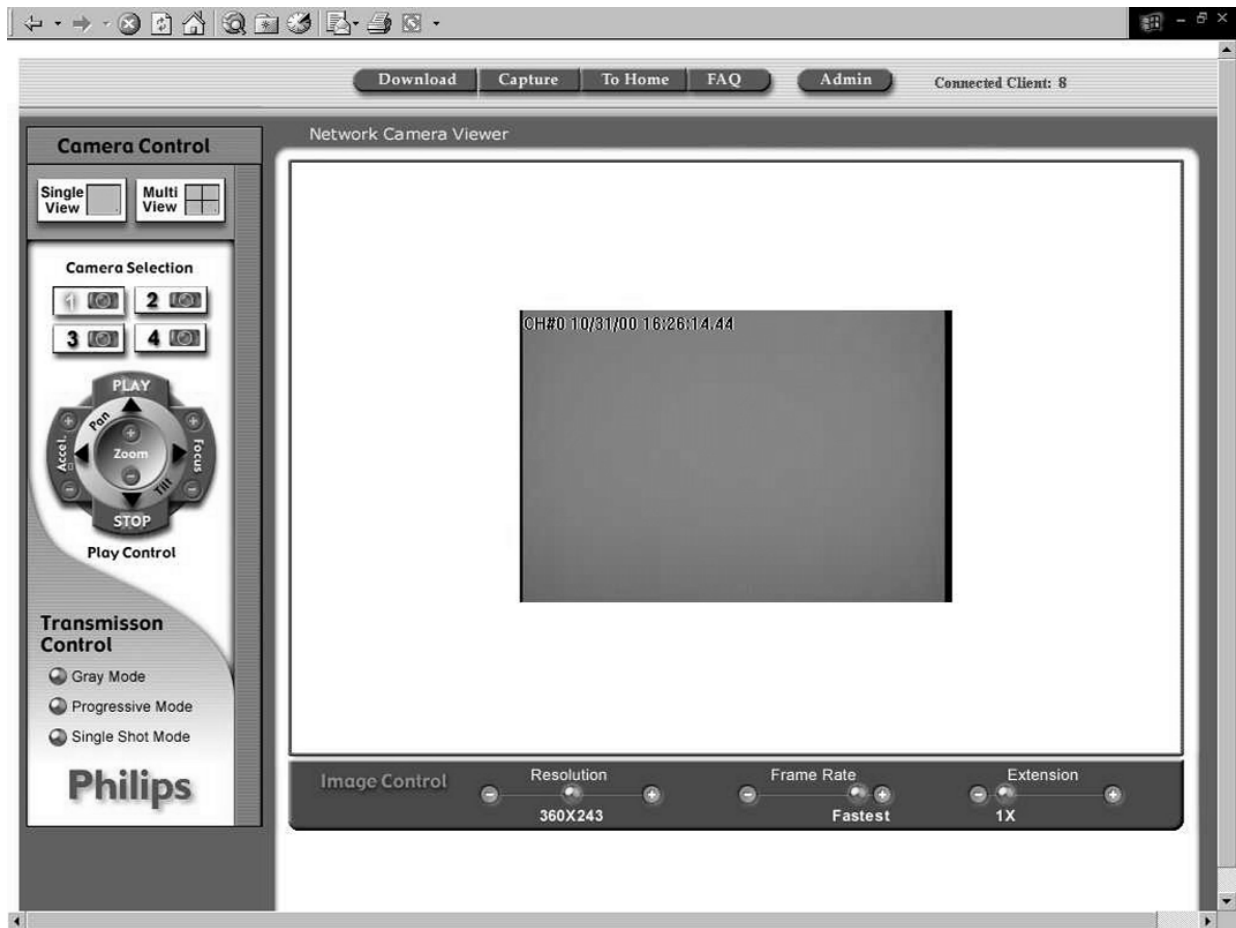High quality image area setting
Image quality control (10 levels of compression)
Periodical image transfers through E-mail and uploads to a server using FTP
Grey/Progressive/Single-shot Mode

Pan/Tilt/Zoom Control: RS-232 or RS-485 (DB-15 connector)

External power supply: 12Vdc/1A; 100 – 240Vac; Power supply unit included

NetCam-4 Home Page

MECHANICAL

Connectors:
- 4x BNC, video.
- RJ-45 Ethernet.
- General Interface.15-pin D-Sub connector
  RS232
  RS485
  Video iris
  Input-Output Interface.
  - Power 5mm circular, center positive

Camera mounting: Top and Bottom; 1/4" 20 UNC

Lens mounting: C and CS

Dimensions: 75 x 105 x 200 mm (HxWxD*)
*including connectors

Weight: 0.8 kg

ENVIRONMENTAL

Camera:
Temperature range:
  Operating: -5 to 45°C (23 to 113°F)
  Storage: -40 to 70°C (-40 to 158°F)

Operating Humidity: 5% to 93% non-condensing

General Standard according to EN50130-5 Class 1

Electro Magnetic Compatibility:

Emission:
  PAL model: EN 55022, Class B;
  NTSC model: FCC part 15, Class B

Immunity: EN 55024 for ITE equipment

Certification: CE, UL1950 & FCC

Power Supply Unit:
Temperature range:
  Operating: -5 to 45°C (23 to 113°F)
  Storage: -40 to 70°C (-40 to 158°F)

Operating Humidity: 5% to 95% non-condensing

General Standard according to EN50130-5 Class 2

Electro Magnetic Compatibility:

Immunity: Meets FCC part 15, Class B

CE: Compliant, class B

Delivered accessories

Set-up software for Windows 98/NT4

Cross-wire network cable

DB 15 connector

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