Panasonic
ideas for life

High Quality, High Efficiency, and High Reliability.
This Megapixel Color Network Camera Delivers Everything You Need.

MEGA Pixel

MPEG-4 JPEG

day/night

Auto Back Focus

MPEG-4 & JPEG Dual Stream Capable. For high-level 24-hour surveillance, th

Panasonic introduces the new WV-NP1004 Mega Pixel Color Network Camera with a 1.25 megapixel CCD. Dual streaming delivers both the seamless motion of MP Focus, this camera is also loaded with advanced features such as the SD Memory Card backup in case of network problems. With 600 lines of horizontal resolution, high reliability, and there's no question about it; the WV-NP1004 is ideal, not only for bank, office building, shopping mall, airport, and school surveillance application

Wider Area, Higher Resolution

Equipped with Progressive Scan 1.25 Megapixel CCD

This 1,280 x 960 pixel CCD uses progressive scan to smoothly reproduce images of moving subjects. Plus, if we compare its 1,280 x 960 JPEG images with conventional VGA (640 x 480) JPEG images, we find that for the same camera position, the image covers a four-times wider area.
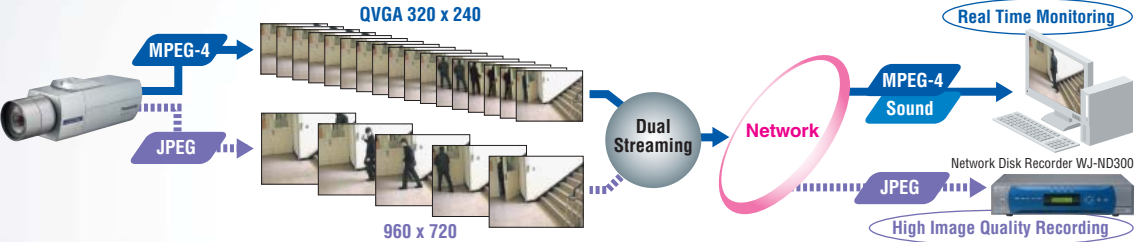
Four Times Wider Area (Same Camera Position)
One camera covers a wider area.

Conventional
(VGA 640 x 480)

WV-NP1004 (1,280 x 960)

Four Times Higher Resolution (Shooting Same Area)
Enlarged images show no loss of image quality, enabling superior electronic zoom.

Conventional   **WV-NP1004**   **Electronic Zoom**

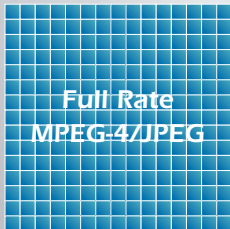## Real Time Monitoring & High Image Quality Recording

MPEG-4/JPEG Dual Streaming

This camera allows real time monitoring in MPEG-4 (QVGA 320 x 240: Max. 30 fps) while at the same time shooting high-resolution JPEG (960 x 720: Max. 7.5 fps) images. While supporting a highly efficient network environment, it also provides the high reliability required by surveillance applications.

MPEG-4   QVGA 320 x 240   Real Time Monitoring

JPEG   960 x 720   Dual Streaming   Network   MPEG-4 Sound

Network Disk Recorder WJ-ND300

JPEG   High Image Quality Recording

Full Rate MPEG-4/JPEG

Transmits at High Frame Rate

In Partial Scan Mode, this camera can capture VGA(640 x 480) MPEG-4/JPEG images and output them over your network at 30 fps.
(For details, please see Frame Rate Chart.)

Two CCD Scan Modes

Full Scan Mode:
1,280 x 960 (effective pixels),
15 fps progressive scan.

Partial Scan Mode:
960 x 720 (effective pixels),
60 fps interlace scan.
(with motion adaptive interlace/progressive
conversion for Network)

You can choose the best-fit image size from a rich array of alternatives.

Scan Mode	Compression Format		JPEG		MPEG-4	
Full Scan Mode (Max. 15 fps*)	1,280 x 960	VGA 640 x 480	QVGA 320 x 240	VGA 640 x 480	QVGA 320 x 240
Partial Scan Mode (Max. 30 fps*)	960 x 720	VGA 640 x 480	QVGA 320 x 240	VGA 640 x 480	QVGA 320 x 240

Camera frame rate, not transmitting over network, always available for analog surveillance.

Frame Rate Chart

JPEG (MPEG-4 OFF)

Image Resolution	Mode	0 Super Fine	1 Fine	2	3	4	5 Normal	6	7	8	9 Low
1,280 x 960 Full Scan Mode	Image Size (KB)	320	256	224	192	160	128	96	80	64	48
	Frame Rate (fps)	5	6	8	9	10	13	13	14	14	14
	Bit Rate (Mbps)	12.6	12.5	14.2	13.5	12.6	13.5	10.2	9.2	7.4	5.5
VGA (640 x 480) Full Scan Mode	Image Size (KB)	128	96	80	64	56	48	40	32	28	24
	Frame Rate (fps)	13	15	15	15	15	15	15	15	15	15
	Bit Rate (Mbps)	13.3	11.6	9.6	7.7	6.7	5.8	4.8	3.8	3.4	2.9
QVGA (320 x 240) Full Scan Mode	Image Size (KB)	44	40	36	32	28	24	20	16	14	12
	Frame Rate (fps)	15	15	15	15	15	15	15	15	15	15
	Bit Rate (Mbps)	5.5	4.8	4.3	3.8	3.4	2.9	2.4	1.9	1.7	1.4
960 x 720 Partial Scan Mode	Image Size (KB)	240	192	152	120	96	72	60	48	42	36
	Frame Rate (fps)	6	8	10	12	16	22	23	24	24	24
	Bit Rate (Mbps)	11.7	12.3	12.0	12.0	11.9	12.5	10.7	8.8	7.7	7.1
VGA (640 x 480) Partial Scan Mode	Image Size (KB)	128	96	80	64	56	48	40	32	28	24
	Frame Rate (fps)	11	15	18	25	25	25	28	30	30	30
	Bit Rate (Mbps)	10.9	11.8	11.2	12.0	11.2	9.4	8.5	7.2	6.7	5.8
QVGA (320 x 240) Partial Scan Mode	Image Size (KB)	44	40	36	32	28	24	20	16	14	12
	Frame Rate (fps)	25	28	28	30	30	30	30	30	30	30
	Bit Rate (Mbps)	9.0	9.2	8.5	7.4	6.7	5.8	4.8	6.2	3.4	2.9

(above all figures are approximate, actual figures may differ depending on the network under the conditions.)
(system requirements of above figures are recommendable PC with CPU; Pentium®4 2/4 GHz or faster)

MPEG-4 (1 User)

Image Resolution	Mode	4,096	3,072	2,048	1,536	1,024	512	256	128	64
VGA (640 x 480) Full Scan Mode	Low (fps)	15	15	15	14	9.7	4.7	2	1	0.8
	Normal (fps)	15	15	15	11	7	3.5	1.6	1	0.8
	Fine (fps)	13	11.9	10	7.3	4.5	2.5	1	1	0.8
QVGA (320 x 240) Full Scan Mode	Low (fps)	15	15	15	15	15	14.8	9.1	4.5	2
	Normal (fps)	15	15	15	15	15	14.2	6.5	3.3	1.7
	Fine (fps)	15	15	5	15	15	10	4.5	2	1
VGA (640 x 480) Partial Scan Mode	Low (fps)	30	30	30	22	15	7	3.3	1.5	1
	Normal (fps)	30	30	30	21	15	7	3	1.5	0.9
	Fine (fps)	29.7	26.5	22.5	19	13.5	5	2.5	1.2	0.8
QVGA (320 x 240) Partial Scan Mode	Low (fps)	30	30	30	30	30	28	13	6	2.5
	Normal (fps)	30	30	30	30	30	22	10	4.8	2.5
	Fine (fps)	30	30	30	30	28	14.7	7	3.2	1.5

DUAL Mode

Scan Mode	JPEG		MPEG-4 (User No.)		
	Size	Frame Rate (fps)	4,096 kbps	2,048 kbps	1,024 kbps
Full Scan Mode	1,280 x 960	5	3	5	7
	1,280 x 960	2	4	7	7
	1,280 x 960	1	4	7	7
Partial Scan Mode	960 x 720	5	–	–	7
	960 x 720	2	4	7	7
	960 x 720	1	4	7	7
Partial Scan Mode	VGA	5	4	7	7
	VGA	2	4	7	7
	VGA	1	4	7	7

MPEG-4 is unicast transmission and normal mode. Adove frame rate of MPEG-4 is same as MPEG-4 only.

e WV-NP1004 Megapixel Color Network Camera.

PEG-4 and the high precision of JPEG. Just as you expect from Panasonic, the first to offer Auto Back
, high quality analog output is a given. Add the combination of networked operation convenience and
s, but also for other high-quality image transmission services.

Advanced 24-Hour Surveillance Features

Day/Night Switching for 24-hour Surveillance

As the area around the camera darkens, it automatically switches to black and white mode.

Then, when the lighting gets brighter, it automatically switches back to full-color mode, allowing use of a single camera for 24-hour surveillance.

Day　　　**Night**

Day/Night Switching

In Lighting as Low as 0.06 lux (B/W mode, F1.4)

When using the optional F1.4 lens, color mode captures clear images in lighting as low as 1.0 lux (0.1 fc). In black and white mode, the lighting can be as low as 0.06 lux (0.006 fc). Sensitivity can be electronically enhanced up to 32x.

600 TV Lines Horizontal Resolution (in Color Mode)

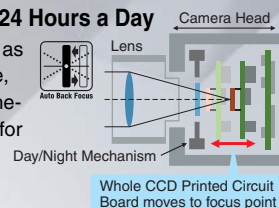Analog output resolution is 600 TV lines in color mode, 780 TV lines in black and white.

Auto Image Stabilizer Reduces Image Blurring

The Auto Image Stabilizer feature automatically adjusts for camera shake caused by strong wings or vibration from passing trains or trucks, keeping images clear and easy to read.
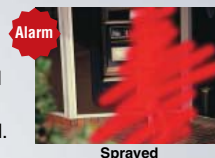
Conventional　　　**WV-NP1004**

Auto Back Focus for Just Right Focus 24 Hours a Day

Camera Head

This features adjusts the position of the CCD as the camera switches to black and white mode, keeping focus sharp and clear. In addition, one-push Auto Focus largely eliminates the need for manual focus adjustment during installation. Focus can also be adjusted remotely, using the setup menu or optional controller.

Lens

Day/Night Mechanism

Whole CCD Printed Circuit Board moves to focus point

Scene Change Detection Alerts You to Interference with Cameras

Alarm

This feature sends an alarm if the camera is covered with a cloth, a spray applied to the lens, the camera direction is changed or the camera's lens is removed.

Sprayed

Motion Detection Warns of Movement in the Area Under Surveillance

You can set up to four search areas as well as sensitivity and direction. An alarm signal is transmitted when motion is detected.

Privacy Zone Masking for Up to Eight Locations

When the area under surveillance includes, for example, private homes, up to eight locations can be hidden to address privacy concerns.

Sound Detection Features

Each camera is equipped with a high-sensitivity microphone, allowing you to monitor sound for fuller understanding of what the camera shows you (ITU-T Standard G.726 sound capability).

A Wealth of Handy Alarm Features

Cameras can be preset to respond as desired to alarms from external sensors, Scene Change Detection and Motion Detection sensors built in to the cameras, or command alarms from other equipment transmitted over the LAN.

External Device Operation
Signals transmitted from the alarm output connector on the back of the camera can be used to activate lights, buzzers or other external devices.

FTP Server Forwarding
JPEG images can be forwarded to a designated FTP server (10-5,000 frames/ 0.1 fps - 1 fps refresh rate).

Alarm E-mail Notification
E-mail alarms can be sent to up to four e-mail addresses. Mail subject lines can be up to 50 characters long. Mail body text can be up to 200 characters long.

Automatic Alarm Transmission
Alarm signals can be transmitted automatically to the Network Disk Recorder WJ-ND300, e.g., to switch to a higher frame rate.

Security Features Just in Case

SD Memory Card Slot

If your network crashes, these cameras can automatically backup* surveillance images on the SD Memory Card (option). You will still be able to check images captured while the network was down.

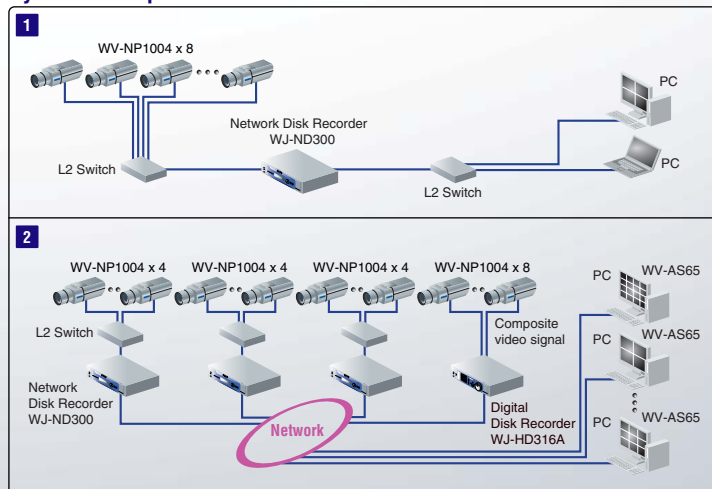* Only when images are being transmitted regularly to an FTP server.

Authorized Access Management Features

Access can be authorized for up to eight IP hosts and restricted by name and password to up to 16 users. Each host or user can be granted any of three levels of access.

Three Access Levels

- **Administrator** ············· Access to all operations and settings
- **Camera Control** ·········· Access to camera display and camera controls
- **Live Image** ·················· Access to image display only

System Examples

1

WV-NP1004 x 8

PC

Network Disk Recorder
WJ-ND300

L2 Switch

L2 Switch

PC

2

WV-NP1004 x 4　WV-NP1004 x 4　WV-NP1004 x 4　WV-NP1004 x 8

PC　WV-AS65

L2 Switch

Composite video signal

PC　WV-AS65

Network Disk Recorder WJ-ND300

Network

Digital Disk Recorder WJ-HD316A

PC　WV-AS65

Simple Operation and Settings Screen

Main Menu

Basic Setup

Camera Setup

Monitoring Using Up to Eight Network Cameras
Images from up to four cameras can be displayed simultaneously. Switching allows use of up to eight cameras.

The above photographs were taken for the purpose of this explanation; actual performance and images may vary depending on environmental or other conditions.

SPECIFICATIONS: WV-NP1004

CAMERA	
Image Sensor	1/3 inch progressive transfer CCD
Effective Pixels	Full scanning mode: 1,280 (H) x 960 (V) Partial scanning mode: 960 (H) x 720 (V)
Scanning Area	Full scanning mode: 4.8 mm (H) x 3.6 mm (V) Partial scanning mode: 3.6 mm (H) x 2.7 mm (V)
AGC	ON (LOW, MID, HIGH)/OFF
Electronic Shutter	Full scanning mode: OFF(1/15), 1/30, 1/50, 1/60, 1/100, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/10,000 s Partial scanning mode: OFF(1/60), 1/100, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/10,000 s
Sensitivity Up	OFF, x2AUTO, x4AUTO, x6AUTO, x10AUTO*, x2FIX, x4FIX, x6FIX, x10FIX*, x16FIX*, x32FIX* (* Selectable only when "Partial scan" is selected for the resolution setting.)
White Balance	ATW1/ATW2/AWC
DNR	LOW/HIGH
Color/BW	AUTO1/AUTO2/EXT/ON/OFF
Electronic Zoom	x5
Image Stabilizer	ON/OFF
Camera ID	Up to 16 characters ON/OFF
VMD Alarm	ON/OFF, 4 areas available
Flange-Back Length	ABF/MANUAL/CL/BW
ALC Lens Drive	DC drive
Lens Mount	CS-mount
Analog	
Signal	NTSC
Monitor Output	VBS: 1.0 V [p-p] / 75 Ω, composite (BNC)
Scanning Frequency	Horizontal: 15.734 kHz Vertical: 59.94 Hz
Synchronization	Internal synchronization, VD2 synchronization
Resolution	Horizontal: 600 TV lines or more (in color), 780 TV lines or more (in B/W) Vertical: 350 TV lines or more
S/N	50 dB or more (AGC OFF)
Minimum Illumination	1.0 lux (0.1 fc) (in color), 0.06 lux (0.006 fc) (in B/W) [F1.4 optional lens, AGC ON (HIGH), full scanning mode (15 fps, shutter speed 1/30 s) / partial scanning mode (60 fps, shutter speed 1/60 s)]
Network	
Network	10BASE-T/100BASE-TX, RJ45 connector
Resolution	
Full Scanning Mode	JPEG: 1,280 x 960/VGA (640 x 480)/QVGA (320 x 240) MPEG-4: VGA (640 x 480)/QVGA (320 x 240), up to 15 fps
Partial Scanning Mode	JPEG: 960 x 720/VGA (640 x 480)/QVGA (320 x 240) MPEG-4: VGA (640 x 480)/QVGA (320 x 240), up to 30 fps
Image Compression Method	
JPEG	Image quality: 0 SUPER FINE/1 FINE/2/3/4/5 NORMAL/6/7/8/9 LOW (10 steps: 0-9) Transmission type: PULL/PUSH
MPEG-4	Image quality: LOW/NORMAL/FINE Transmission type: UNICAST/MULTICAST
Refresh Interval (MPEG-4)	0.1 fps - 30 fps
Audio Compression Method	G.726 (ADPCM) 32 kbps/64 kbps
Bandwidth Control	664 kbps/128 kbps/256 kbps/512 kbps/1,024 kbps/2,048 kbps/4,096 kbps/10 Mbps/Unlimited (1 k = 1,024)
Protocol	TCPIP, UDP/IP, HTTP, RTP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP
OS	Microsoft® Windows® 2000 Professional SP4, Microsoft® Windows® XP Home Edition SP2, Microsoft® Windows® XP Professional SP2
Web Browser	Internet Explorer 6.0 Service Pack2
Maximum Concurrent Access Number	8 (Depends on network conditions.)
FTP Client	Alarm image transmission, FTP periodic transmission
Multi-Screen	Images from 8 cameras (4 cameras x 2 groups) can be displayed.
SD Memory Card	Manufactured by Panasonic Capacity: 64 MB, 128 MB, 256 MB, 512 MB, 1 GB
External I/O Terminals	DAY/NIGHT IN x1, AUX OUT x1, ALARM IN x1, ALARM OUT x1
Other Specifications	
Power Source	AC 24 V 60 Hz
Power Consumption	Approx. 9.5 W
Ambient Temperature	−10 °C - +50 °C (14 °F - 122 °F)
Ambient Humidity	90 % or less
Controller Interface	Coaxial multiplex/Ethernet
Dimensions (W x H x D)	84 x 83 x 197.5 mm (3-5/16" x 3-1/4" x 7-3/4") (excluding connectors/terminals)
Weight	Approx. 0.97 kg (2.1 lbs.)

SPECIFICATIONS: WV-LZA62/2

Focal Length	2.8 - 6 mm
Aperture Ratio	F1.4 (Wide) to F176, close F2.1 (Tele) to F176, close
Iris Type	Automatic
Image Size	4.8 (H) x 3.6 (V) mm (ø6 mm)
Angular Field of View	H: 47.9° (Tele) 99.6° (Wide) V: 35.6° (Tele) 72.9° (Wide)
Minimum Object Distance	1.2 m (3.9 ft.) - ∞
Mount	Special C-Mount
Weight	118 g (0.26 lbs.)
Dimensions (W x H x D)	64 x 60 x 60.9 mm (2-1/2" x 2-3/8" x 2-3/8")

MAJOR OPERATING CONTROLS & TERMINALS

Top   Bottom

Rear   Side

① Safety Wire Fixing Screw Hole (M3)
② SD Memory Card Slot Cover
③ Screw Holes for the Camera Mounting Bracket (1/4-20UNC)
④ Screw Hole for the Camera Mounting Bracket (1/4-20UNC)
⑤ AC 24 V Terminal
⑥ SD Memory Card Error Indicator (red)
⑦ Link Indicator
⑧ Network Connector (RJ-45 Terminal)
⑨ Access Indicator
⑩ Video Out Connector
⑪ Power Indicator (green)
⑫ External I/O Terminals
⑬ Microphone
⑭ Tripod Mount Base
⑮ Fixing Screw for Transportation
⑯ Cover for the Operation Buttons
⑰ ALC Lens Connector

❶ INITIAL SET Button
❷ UP Button
❸ SET, ABF/MENU Button
❹ LEFT/NEAR Button
❺ DOWN Button
❻ RIGHT/FAR Button

DIMENSIONS

Unit : mm (inches)

OPTIONAL COMPONENTS & ACCESSORIES

2x Variable Focal Lens
WV-LZA62/2
2.8 - 6 mm
F1.4 (wide)
F2.1 (tele)

Network Disk Recorder
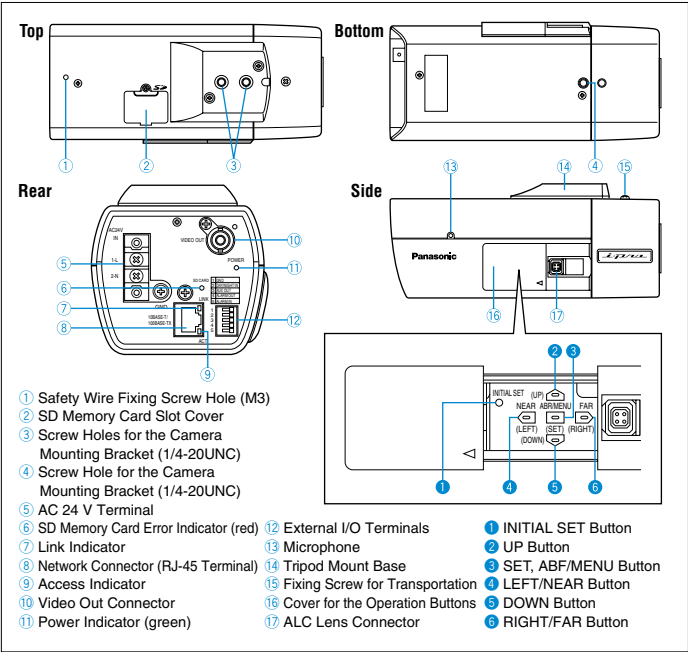**WJ-ND300**

Management PC Software
WV-AS65

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Important – Safety Precaution: carefully read the operating instructions and installation manual before using this product.
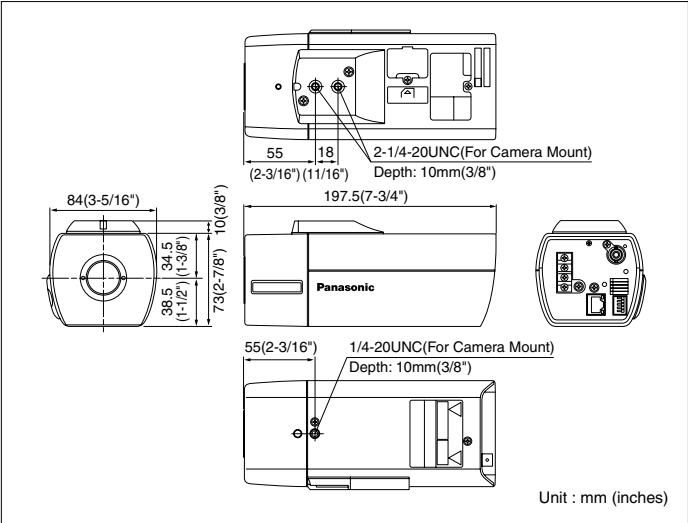– Panasonic can not be responsible for network performance and/or other manufacturer products that reside on the network.
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