

Panasonic
ideas for life

16ch Real-time H.264
Digital Disk Recorder

WJ-HD716

16ch H.264 Digital Disk Recorder

WJ-HD616

High Picture Quality

Reliability

SD5 Link



Digital Disk Recorder
WJ-HD716/616

Excellent Picture Quality

H.264 High Profile

UniPhier® Panasonic Platform LSI

UniPhier® is the unified Panasonic platform LSI for versatile applications with high quality AV, real time processing and low power consumption.



H.264 High profile



H.264 Baseline profile

MPEG-4

WAVELET

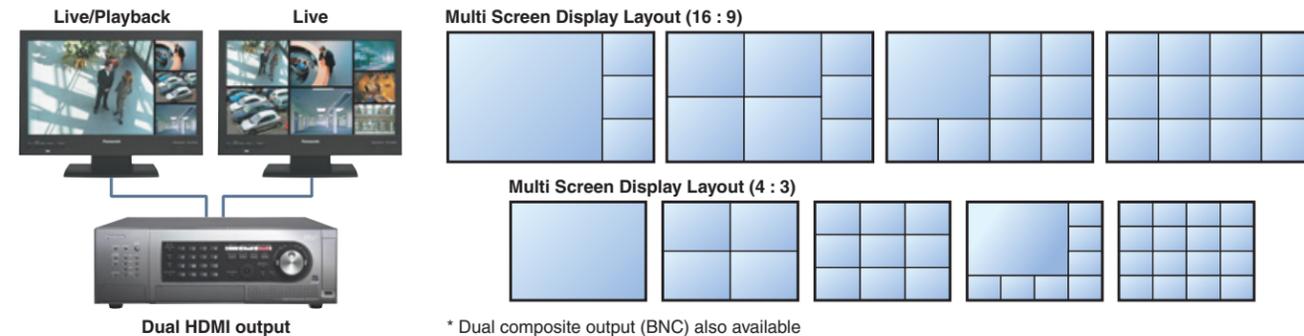
JPEG

By utilizing the high capability of UniPhier®, Panasonic has realized both high picture quality and high compression by H.264 High Profile compression. This reduces bandwidth and storage size by up to 40% compared with MPEG-4 compression.

Full HD 1080i with multidisplay capability



Dual HDMI Full HD 1080i (1,920 x 1,080) display output for both Live and Live/Playback is possible. Real-time images of up to 960 ips (NTSC) / 800 ips (PAL) at 16ch on 2 monitors can be displayed.



Real-time Recording

WJ-HD716 Field : 480/400 ips = 16ch Real-time recording (NTSC/PAL)
 Frame : 240/200 ips = 8ch Real-time recording (NTSC/PAL)

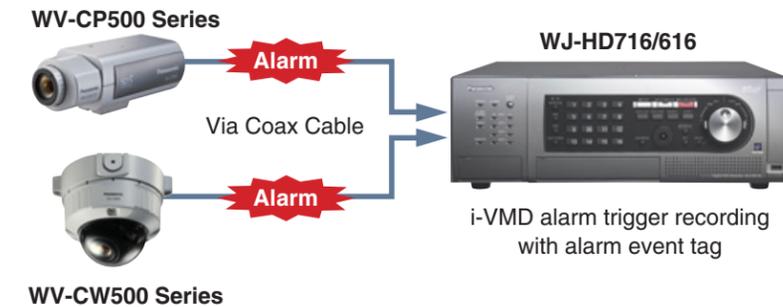
* WJ-HD616 features Field 240/200 ips and Frame 120/100 ips (NTSC/PAL)
 Up to 15 ips/ch (Field), 7.5 ips/ch (Frame) : NTSC
 Up to 12.5 ips/ch (Field), 6.25 ips/ch (Frame) : PAL



Intelligent System with SD5 Camera



Disk Saving and Easy Search with i-VMD (intelligent-Video Motion Detection) alarm of "SD5" camera



Benefit 1 Disk Saving
 Efficient recording contribute to TCO (Total Cost of Ownership) reduction

Benefit 2 Easy Search
 By multiple alarm events
 • Object Removal/Left Behind
 • Intruder Detection
 • Duration, Direction
 • Scene Change

i-VMD (intelligent-Video Motion Detection)

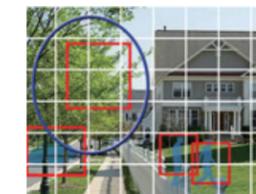
This amazing new intelligence contributes to Superior Image of *Super Dynamic 5*. Plus, it offers efficient and reliable surveillance, preventing loss of vital scenes, and providing easy search and disk saving for recorder system.

Video Motion Detection

High resolution detection area and advanced motion analyze algorithm enables accurate motion detection. Stay detection and direction detection are also possible.

Conventional

Back ground movements such as tree, rain, shadow, waves are wrongly detected.



8 x 6 detection setup areas

i-VMD

i-VMD learns back ground movements and only subjective movement can be detected.



320 x 240 detection resolution

Object Detection

Left Behind

Abandoned object can be detected and indicated with the red frame to alert a malicious attempt.



A person is leaving a bag behind.

The abandoned bag is detected and indicated by red frame.

Removal

Removed object in the specified area can be detected and indicated with the red frame to alert a theft.



A person is approaching to the PCs.

The stolen PC is detected and indicated by red frame.

Easy Operation

Easy GUI

- Basic concept of WJ-HD316A maintained
- User interface becomes easier than WJ-HD316A - "From Left to Right" easy-to-understand i-Pro like design

Mouse Operation becomes available for Operation and Setup

- Mouse port is featured in front panel

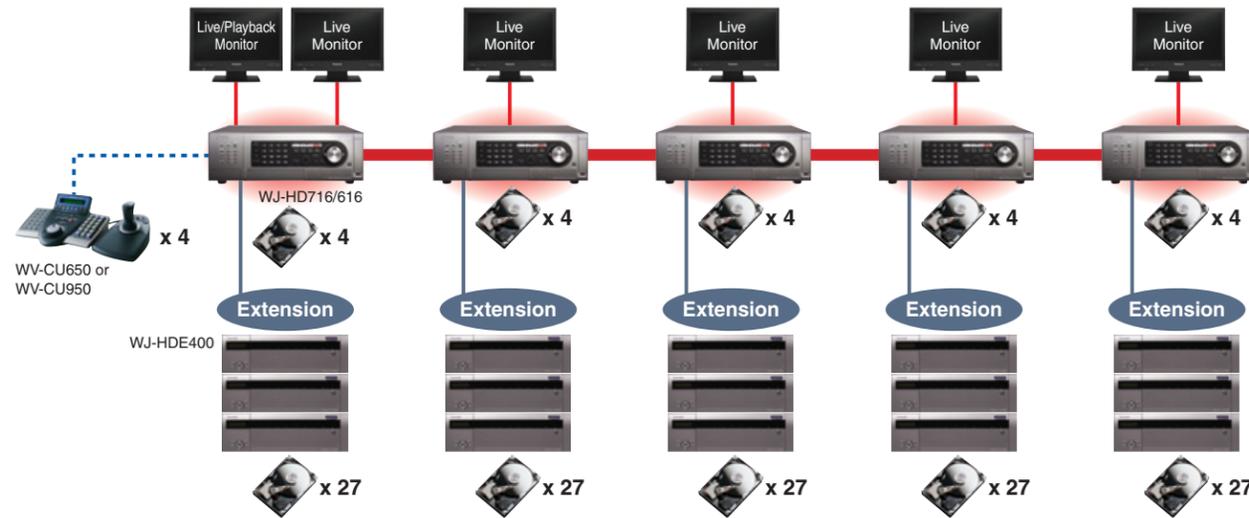


System Scalability and Flexibility

Flexible system design is possible in accordance with various applications.
Also, it can smoothly be migrated from 16ch Digital Disk Recorder, WJ-HD316A.

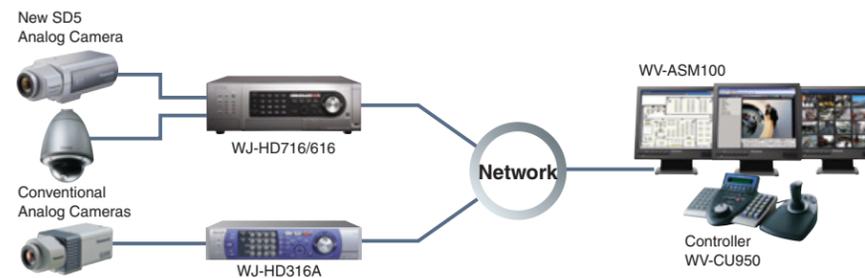
High Scalability with Cascade and HDD Extension

- Up to 4 HDDs can be installed (in the main unit)
- High scalability with 5 main units → up to 80 camera inputs
- High scalability with main unit x 4 HDDs + 3 extension units x 9 HDDs → up to 155 HDDs total
- Up to 4 Controllers (WV-CU650, WV-CU950) can be connected (PS-Data)



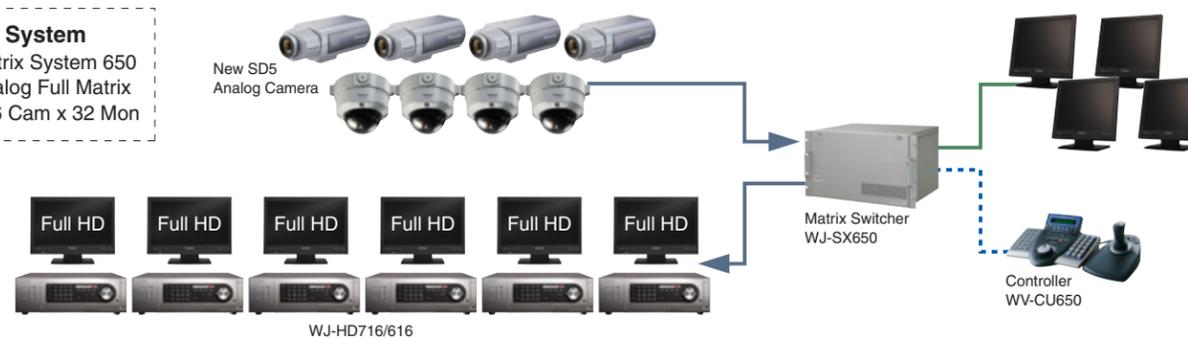
Migration with WJ-HD316A

- WJ-HD316A can be easily replaced by WJ-HD716/616
- WJ-HD316A and WJ-HD716/616 can be used in the same multi-site system



Integration with Matrix System 650

SX System
Matrix System 650
Analog Full Matrix
256 Cam x 32 Mon



Outstanding Reliability

- Embedded Real-time Operating System
- HDD Redundancy with RAID 5/6

Network Capability

Basic performances have greatly improved and QVGA Live Output is possible even under narrow bandwidth while being independent from recording.
It can also be integrated with i-Pro equipments or 3rd party system with PS-API*.

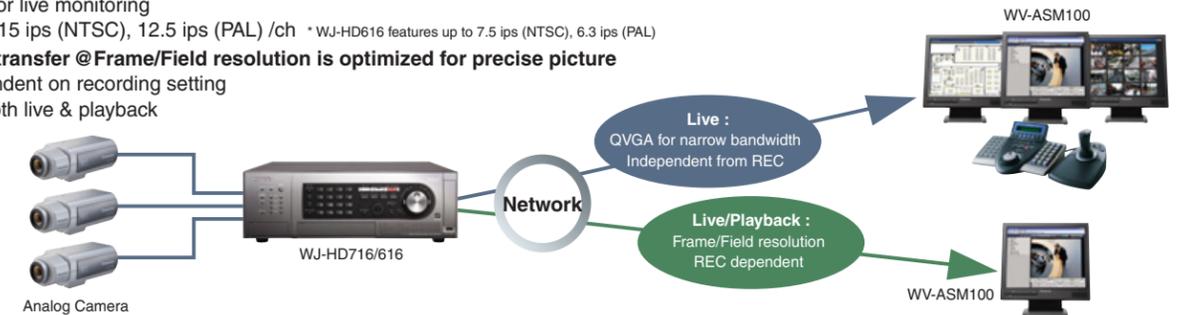
“QVGA” and “Frame/Field” Dual Resolutions for Network Stream

Image transfer @QVGA resolution is optimized for narrow network bandwidth

- Independent from recording
- Only for live monitoring
- Up to 15 ips (NTSC), 12.5 ips (PAL) /ch * WJ-HD616 features up to 7.5 ips (NTSC), 6.3 ips (PAL)

Image transfer @Frame/Field resolution is optimized for precise picture

- Dependent on recording setting
- For both live & playback



With Internet Explorer®

- Monitor Live Images
- Start/Stop REC manually
- Search and Play Recording Event
- Setup etc



WV-ASM100 i-Pro Management Software

- Monitor Live Images
- Start/Stop REC manually
- Search and Play Recording Event
- Save Recorded Images
- Print etc



Hybrid System with WV-ASM100 & i-Pro Products

Browsing from WV-ASM100

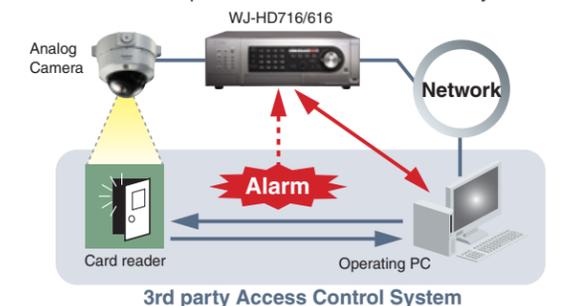
- Both live image and playback image from WJ-HD716/616 can be browsed at WV-ASM100
- i-Pro system can be added to the system and also can be browsed at WV-ASM100



System Integration with PS-API*

Example: Integration with Access Control System

- WJ-HD716/616 start recording triggered by the alarm sent from card reader
- Both live image and playback image from WJ-HD716/616 can be browsed from Operation PC of Access Control System



* PS-API is the SDK (Software Development Kit) which is provided to help to develop the application to control Panasonic video monitoring security products (Network cameras, Network Disk Recorders, Digital Disk Recorders, Network Interface Units) by the unified method and to get video image.

Easy Installation and Maintenance

- Front accessible 4 HDD slots for easier maintenance without removing unit from the mount rack
- Front maintenance Ethernet port for easier maintenance without entering customer network

End to End Solution

To provide the highest picture quality for the best identification through total Panasonic system approach

SD5 Family

SuperDynamic

Capturing	Storage	Viewing
<p>WV-CP500 Series WV-CW500 Series</p>  <ul style="list-style-type: none"> • Intelligence (i-VMD) • Superior Image • Surveillance Assist 	<p>WJ-HD716/616</p>  <ul style="list-style-type: none"> • High Picture Quality • Reliability • SD5 Link 	<p>New Wide LCD Monitors</p> <p>WV-LW2200 WV-LW1900</p>  <p>Full HD (1,920 x 1,080) HDMI</p> <p>HD (1,366 x 768) HDMI</p>

Specifications

TV System	NTSC	PAL
Audio / Video IF	<p>Video Inputs</p> <p>WJ-HD716: 16x 1.0 V [p-p] / 75 Ω composite video inputs (BNC) 16x multiplexed control data (1 ~ 16 CH) Cascade IN: 2x HDMI, 1x BNC</p> <p>WJ-HD616: 16x 1.0 V [p-p] / 75 Ω composite video inputs (BNC) 8x multiplexed control data (1 ~ 8 CH) Cascade IN: 2x HDMI, 1x BNC</p> <p>Video Outputs</p> <p>16x 1.0 V [p-p] / 75 Ω composite video signal (BNC), active loop through outputs Monitor outputs: 2x HDMI, 2x 1.0 V [p-p] / 75 Ω composite video signal (BNC), Video output (front RCA): 1x 1.0 V [p-p] / 75 Ω composite video signal</p> <p>Audio Inputs</p> <p>4x -10 dBV, 10 KΩ (RCA) (1 ~ 4 CH)</p> <p>Audio Outputs</p> <p>Rear: 1x -10 dBV, 600 Ω Front: 1x -10 dBV, 600 Ω</p>	
Audio / Video Format	<p>Recording</p> <p>H.264 (High profile) Frame (720 x 480 pixels) Field (720 x 240 pixels)</p> <p>Network</p> <p>QVGA (320 x 240 pixels): Recording independent Field/Frame: Recording dependent</p>	
Recording	<p>Frame Rate Total</p> <p>WJ-HD716: 480 ips at Field, 240 ips at Frame</p> <p>WJ-HD616: 240 ips at Field, 120 ips at Frame</p> <p>WJ-HD716: 400 ips at Field, 200 ips at Frame</p> <p>WJ-HD616: 200 ips at Field, 100 ips at Frame</p>	
Main Unit Functions	<p>Camera Control</p> <p>Pan/Tilt, Zoom, Focus, Iris, Preset position call (up to 256), Auto mode</p> <p>Multiscreen Mode</p> <p>4 / 7 / 8 / 9 / 12 / 16 split screen display</p> <p>Copy to External Media</p> <p>DVD±R, SD/SDHC</p>	
Browser GUI	<p>Supported Browser</p> <p>Windows® Internet Explorer® 7.0 (Microsoft® Windows Vista® Business 32 bit), Microsoft® Internet Explorer® 6.0 SP2 (Microsoft® Windows® XP Home/Professional SP2)</p>	

TV System	NTSC	PAL
Network	<p>Network Interface 10Base-T / 100Base-TX (RJ-45) x1</p> <p>Maintenance Interface 10Base-T / 100Base-TX (RJ-45) x1</p> <p>No. of Client at a Time 8</p> <p>User Registration Up to 32 users</p>	
Alarm / Event	<p>Alarm Source 16x Terminal inputs, 16x Camera alarm, PS-Data</p>	
External IF	<p>Alarm 16x Alarm inputs (25 pin D-sub, Make contact, N.O./N.C.) 16x Alarm outputs (25 pin D-sub, Open collector, N.O./N.C.) 1x Alarm reset input, 1x Alarm suspend input</p> <p>EXT Storage 3x High speed serial interface. Only for WJ-HDE400 Extension Unit.</p> <p>Recording Emergency recording input, External recording mode input</p> <p>Time Adjustment Time adjustment input/output</p> <p>Controls Sequence switching signal input. Power outage detection output, Shut down ready output</p> <p>PS-Data (RS-485) 2x RS-485 (RJ-11) PS-Data compatible for control from WV-CU650 or Matrix Switcher WJ-SX650</p> <p>RS-485 Camera Interface 2x RS-485 (RJ-11), 2/4wire, half duplex, for 1 ~ 16 CH</p> <p>Mouse USB Mouse port (Front) x1</p> <p>SD/SDHC Slot SD/SDHC Memory Card Slot (Front) x1</p>	
HDD	<p>Type 3.5 inch Serial ATA HDD, Up to 4x HDDs can be installed.</p> <p>Maximum HDD 31 HDDs (with 3x WJ-HDE400 extension units each with 9x HDD slots)</p> <p>RAID RAID5/RAID6 supported (with WJ-HDB601)</p>	
General Specifications	<p>Safety/EMC Standard</p> <p>UL (UL60065), FCC (Part15 ClassA), CE (EN60065, EN55022 ClassB, EN55024) C-UL (CAN/CSA C22.2 No.60065), DOC (ICES003 ClassA)</p> <p>Power Source</p> <p>120 V AC, 60 Hz 220 ~ 240 V AC, 50 Hz</p> <p>Power Consumption</p> <p>130 W</p> <p>Ambient Operating Temperature</p> <p>+5 °C ~ +45 °C (41 °F ~ 113 °F)</p> <p>Ambient Operating Humidity</p> <p>Less than 85 % (without condensation)</p> <p>Dimensions</p> <p>430 mm (W) x 132 mm (H) x 400 mm (D) (16-15/16" (W) x 5-3/16" (H) x 15-3/4" (D)) (excluding rubber feet and projections)</p> <p>Weight (approx.)</p> <p>14 kg (30.8 lbs.) without HDD (Factory default), 17 kg (37.4 lbs.) with 4 HDDs</p>	

Standard Accessories

• CD-ROM*	1 pc.
• Installation Guide	1 pc.
• Quick Reference Guide	1 pc.
* The CD-ROM contains the operating instructions (PDFs) and other manuals.	
The following are for installation:	
• Power Cord (NTSC model)	1 pc.
• Power Cord (PAL model)	2 pcs.
• Rack Mount Bracket	2 pcs.
• Screw for Rack Mount Bracket ...	6 pcs.
• Rack Handle	2 pcs.
• Screw for Rack Handle	4 pcs.
• Washer	4 pcs.
• HDD Canister	1 pc.
• HDD Fixing Screw for HDD Canister ...	6 pcs.

Optional Accessories

<p>HDD Canister WJ-HDU40K</p> <p>RAID Board WJ-HDB601</p> <p>Built-in DVD Drive WJ-HDB611</p>	<p>Hard Disk Extension Unit WJ-HDE400</p> 	<p>Super Dynamic 5 Day/Night Camera WV-CP500 Series</p>  <p>Lens: optional</p>	<p>Super Dynamic 5 Vandal Resistant Fixed Dome Camera WV-CW500 Series</p> 
<p>RS-485 System Controller with 3D-Joystick & Jog/Shuttle WV-CU650</p> 	<p>i-Pro Management Software WV-ASM100</p> 	<p>Matrix Switcher WJ-SX650</p> 	

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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.

- All TV pictures are simulated.
- Weights and dimensions are approximate.
- Specifications are subject to change without notice.
- These products may be subject to export control regulations.

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