

### High Capacity Recording Server



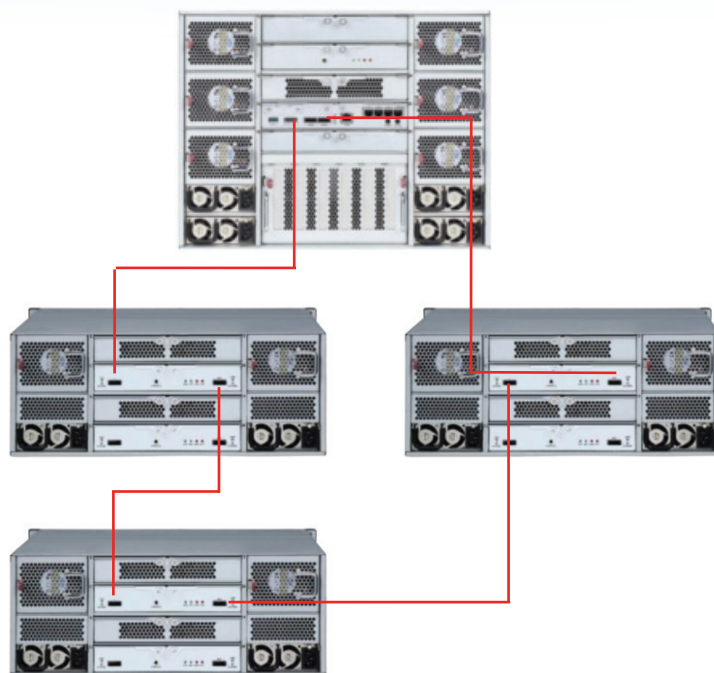
IPVR-48R / IPVR-48DR

#### 48 HDDs SAS Redundant Video Recorder Customized system design available for projects

Illustration of scalable architecture for SAS interface,  
with dual controller and storage units



- 64-bit high-performance multi-core processors, ensures data processing stability
- Modular, pull-out, cableless design
- Support SAS multiple cascade
- Built-in 48 HDD trays in single device and expandable to 240 HDDs, capacity up to maximum 1440TB
- Hi Speed 10-1000Mbps Ethernet port and 4 X Ultra high speed Gigabit Ethernet ports
- Support 3.5 inch, 2.5inch SAS/SATA
- Support mixed different capacity HDDs
- Hot swappable HDD trays
- Support standard iSCSI protocol storage and video stream direct storage
- 1536Mbps video storage bandwidth
- Support RAID0, 1, 5, 6, 10, 50, 60, JBOD, hot standby
- ONVIF and GB28181 protocol support for multiple camera manufacturers
- Easy WEB configuration and setup, no software needed
- Hardware watchdog for self monitoring
- WatchNET VMS-PRO can manage video and recording
- IPVR-48R (single controller 48 bay) / IPVR-48DR (Dual controller 48 bay)



#### Back Panel:



IPVR-48R / IPVR-48DR



# Enterprise Class Video Recording Server with Dual Controller option (48 HDD Bay) - IPVR-48R / IPVR-48DR

## Product Overview

WatchNET's IPVR-48R / IPVR-48DR offers unparalleled storage technology. It is designed and developed to meet the needs of medium-range to high-end IP video surveillance applications. It supports 768 channels of IP camera inputs, and 1536Mbps incoming/recording/forwarding bandwidth.

Combined with hot-swap power supplies, fans and hard disk drives, the IPVR-48 offers real Enterprise Class availability. This IPVR-48 is ideal for a wide range of applications such as public safety, transportation stations, government institutions, hotel resorts, shopping malls, city centers, and financial institutions, where demand expansion flexibility, high reliability and centralized storage management.

The IPVR-48 recording server is compatible with numerous third-party devices making it the perfect solution for surveillance systems with enterprise class video management system (VMS). Its open architecture supports multi-user access and is compatible with ONVIF 2.4

## Product Features

### Dual Controller:

The IPVR-48DR comes with dual controller, which enables a fully redundant mode. Combined with hot-swap power supplies, fans and hard disk drives, the IPVR-48DR offers real Enterprise Class availability.

### Modular Design:

All key modules are hot-swap, redundant configuration. Redundant fans, redundant power, multi-redundant design ensures stability. Brand new design for HDD carrier, ensures good cooling, stability and safety for hard disks.

### Storage Extension Capacity:

Local extension, connect to IPVS extension storage by mini SAS interface. Extension storage support redundant power and RAID.

### RAID 0/1/3/4/5/6/10/50/60

Offering a balance between storage performance, storage capacity, and data integrity, the recording server features complete RAID 0/1/5/6/10/50/60 for faster and safer recording.

### N+M Hot Standby

The highly reliable redundancy N+M Hot Standby design provides a secure, failover technique ensuring immediate backup. In the event of a system failure, the slave instantly takes over the master ensuring no data is lost.

### ANR (Automatic Network Replenishment Technology)

Video record in SD card in IP cameras when the network breaks down, and after the network recovered, the video will be transferred to DVR and then recorded in it.

Model	IPVR-48R	IPVR-48DR
<b>System</b>		
Main Processor	64-bit high-performance Intel processor	
Controller	16G Standard, up to 32G Single Controller	16G Standard, up to 32G Dual Controller
Memory	8GB by default (up to 16GB)	8GB by default (up to 16GB) individually for each controller
Operating System	Embedded LINUX	
User Interface	Web	
<b>Working Mode</b>		
Video Stream Mode	Max 768 channel 1536Mbps for incoming/recording/forwarding 64 channel(128Mbps) network playback	
Transfer Mode	4096Mbps front-end connection 4096Mbps network transfer	
IP SAN Mode	Storage bandwidth shall not be less than 3.6Gbps	
<b>Storage</b>		
No of HDD Bays	48 HDDs, Up to 8 TB capacity for each HDD SAS/SATA HDD composite connection	
miniSAS	2 miniSAS ports, for storage extension	
HDD Installation	Additional HDD bracket, HDD hot-swap, HDD online replacement	
HDD Mode	Single, RAID 0/1/3/4/5/6/10/50/60 (Enterprise-level HDDs are recommended), JBOD, hotspare	
<b>Storage Management</b>		
HDD Manager	Non-working HDD hibernation to guarantee sound ventilation, reduce power consumption and enhance HDD life span, HDD bad track mapping to enhance HDD life span	
Playback Function	Play, Pause, Stop, Fast play, Slow play, Full screen, Backup selection, Digital zoom	
RAID Rebuild	Dynamically adjust RAID rebuild speed to guarantee system load balance	
Logic Volume Manager	Support iSCSI volume management, NAS(SMB/NFS/FTP) volume management	
Snapshot	Support snapshot function, create user volume to back data	
Extract Frame	Support extracting P frame function. Customized extracting period and frame rate setup	
Cluster Service	N+M cluster service	N/A
ANR	After disconnection, system can download the record file from the SD card on the network camera to maintain the full record file	
Shortcut RAID Creation	Click one button to create RAID conveniently	
<b>Playback and Backup</b>		
Search Mode	Time/Date, Channel, Alarm, MD and Exact Search (accurate to second)	
Playback Function	Play, Pause, Stop, Fast play, Slow play, Full screen, Backup selection, Digital zoom	
Backup Mode	USB Device/Network/eSATA Device	
Third-party Support		
Third-party Support	WatchNET, AEBell, Arecont, AXIS, Dynacolor, HIKVISION, Dahua, LG, Panasonic, PSIA, Samsung, Sony, Vivotec, and more	

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Model	IPVR-48R	IPVR-48DR
<b>Recording</b>		
IP Camera Input	768 Channel	
Record Rate	1536Mbps	
Record Mode	Manual, Schedule(Regular, Continuous), Motion Detection, Alarm	
Record Interval	1 ~ 120 min(default 60 min) Pre-record 1 ~ 30 sec, Post-record 10 ~ 300 sec. 1 frame storage by period	
<b>Auxiliary Interface</b>		
USB	1 USB 3.0	2 USB 3.0
Multiplex Interface	1 USB 2.0 & eSATA multiplex interface	2 USB 2.0 & eSATA multiplex interface
RS232	1 Port, for PC communication and keyboard	2 Port, for PC communication and keyboard
RS485	1 Port, for PTZ control	2 Port, for PTZ control
<b>Network</b>		
Interface	1 management RJ-45 ports (10/100/1000Mbps) 4 data RJ-45 ports (10/100/1000Mbps)	2 management RJ-45 ports (10/100/1000Mbps) 2 x 4 data RJ-45 ports (10/100/1000Mbps)
Network Mode	Multi-address, Fault-tolerance, Load balance, Link aggregation	
Network Function	HTTP, HTTPS, TCP/IP, IPv4/IPv6, UPnP, RTP, RTCP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, iSCSI, SMB, NFS, FTP, Alarm Server, IP Search (Support WatchNET IP camera, DVR, NVS, etc.)	
Expansion Interface	2 Giga Optical Fiber Interface	2 x 2 Giga Optical Fiber Interface
Max. User Access	128 users	
Smart Phone	iPhone, iPad, Android	
Interoperability	ONVIF 2.4, CGI Conformant	
<b>Electrical</b>		
Power Supply	AC100V ~ 240V, 47 ~ 63 Hz 2 + 2 Redundant power, Hot-swap	
Power Consumption	<1000W (With HDD)	<1060W (With HDD)
Fan	DC12V, 1.5A, Diameter 80mm MTBF > 100,100 hours, Hot-swap	
<b>Environmental</b>		
Working Conditions	0°C ~ +40°C (+32°F ~ +104°F), 10% ~ 80% RH	
Storage Conditions	-20°C ~ +70°C (-4°F ~ +158°F), 5% ~ 90% RH	
Working Altitude	-60m ~ 5000m	
<b>Construction</b>		
Chassis	1.2mm extra-thickness hot-dip galvanized steel High accuracy aluminum alloy slider Self-developed patent removable HDD bracket	
Dimensions(W x D x H)	8U, 482.6mm x 558.5mm x 352.8mm (19.0" x 22.0" x 13.9")	
Net Weight	50kg/110.2 lb (without HDD)	55kg/121.3 lb (without HDD)
Gross Weight	70kg (154.3 lb)	75kg (165.3 lb)
Net Weight	Standard 19-inch rack installation	

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