

# PX-M04-E Series

## Network Digital Video Recorder



### Applications

- ITS Traffic Surveillance
- Homeland Security
- Railway System Surveillance
- Video Conferencing
- Enterprise Video Surveillance
- Wide Area Video Surveillance

### Network function:

- Support TCP, UTP, RTP, Multicast, DHCP, etc.
- Support ADSL (PPPoE) dialup function.
- Support narrow band (PSTN) dialup function.
- Remote parameters setup.
- Remote playback, download the recorded files in DVR.
- Remote upgrade DVR firmware.
- Remote control PTZ.
- Support Internet Explore for network preview.
- Remote get alarm information of DVR.

## Features

### Main features:

- Embedded OS.
- Embedded MCU.
- High performance DSP hardware compression.

### Compression function:

- H.264 video compression algorithm and each channel can be real time (PAL is 25FPS and NTSC is 30FPS).
- Support multi-zone motion detection.
- Support mask function to mask sensitive area.
- Support view tampering alarm function for spiteful camera block.
- Support video signal loss alarm function.
- Support position configurable OSD&LOGO.
- Support both variable bit rate and variable frame rate.
- Support dual-stream and the sub stream can support CIF/QCIF compression resolution.

### Storage function:

- Support 8 HDD and each HDD can support 2000GB.
- Support HDD sleep mode.
- Support HDD SMART function.
- Support FAT32 file system.
- Support many record mode: all time record, motion detect record, external alarm record, motion & alarm record, motion alarm record, manual record.
- Support cycle and non-cycle record mode.
- Support USB flash disk, USB hard disk and USB CD-RW for backup.

### Preview & Playback function:

- Support monitor video output and VGA.
- Support 2-channel synchronous playback.
- Support playback fast, slow, pause, forward, backward, frame by frame, etc.
- Use define preview layout.

### Overview

The PX-M04-E series network digital video Recorder is the newest digital surveillance product. It uses the embedded OS and embedded MCU. It has both features of digital video recorder (DVR) and digital video server (DVS). It can work stand-alone or be used to build a powerful network, widely used in surveillance fields.

### Model name:

- PX-M04-E04: 4-ch. video input and 4-ch. video loop out, 1 main video output, 2-ch. synchronous playback.
- PX-M04-E16: 16-ch. video input and 16-ch. loop out, 1-ch. main video output, 4 auxiliary matrix video output(16\*4), 2-ch. synchronous playback.

### Others:

- Support network voice talk.
- Support PTZ local and remote control.
- Support multi-level user management.
- Support local and remote search log function.
- Automatically recovery from exceptions leads to high reliable.
- Provide SDK and demo source code to shorten the application development time.

## Specifications

Video compression	H.264
Preview resolution	PAL: 704*576(4CIF) NTSC: 704*480(4CIF)
Compress resolution	PAL: 704*576(4CIF) NTSC: 704*480(4CIF) PAL: 528*384(DCIF) NTSC: 528*320(DCIF) PAL: 704*288(2CIF) NTSC: 704*240(2CIF) PAL: 352*288(CIF) NTSC: 352*240(CIF) PAL: 176*144(QCIF) NTSC: 176*120(QCIF)
Video input	4/16 channels BNC (1.0Vp-p, 75 $\Omega$ )
Monitor video output	1-ch (NTSC, PAL optional) BNC 1.0Vp-p,75 $\Omega$
Video loop	4/16 channels BNC (1.0Vp-p, 75 $\Omega$ )
Aux Video matrix output	16x4 (PX-M04-E16) BNC (1.0Vp-p,75 $\Omega$ )
Frame rate	PAL: 1/16~25 FPS; NTSC: 1/16~30 FPS
Stream type	Video stream
Bit rate	16kbps~2Mbps (Self definition)
Communication interface	1 RJ45 10M/100M UTP network port 1 RJ45 RS-232 port 1 RJ45 RS-485 port
Keyboard interface	1 RJ45 port
Device cascade interface	1 RJ45 port
HDD IDE interface	PX-M04-E4-1:2 IDE, support 4 HDD PX-M04-E16:4 IDE 8 HDD . Each HDD can support 2000GB
USB interface	1 USB, support USB1.1; Support USB flash disk, USB HDD, USB CD-R/W
VGA interface	1,800 x 600/60Hz,800 x 600/75Hz, 1024 x 768/60Hz
External alarm input	PX-M04-E4 : 8 inputs, PX-M04-E16: 16 inputs
Relay output	PX-M04-E4: 2 outputs, PX-M04-E16: 4 outputs
Power supply	90--135VAC or 180--265VAC, 47--63 Hz
Power consumption	22W /32W (without HDD)
Working temperature	-10°C~55°C
Working humidity	10%--90%
Size	19 inch standard (450mm x 450mm x 95mm)
Weight	7.6Kg (without HDD)

# PX-M04V400 Series

## Video + Data + Audio + Ethernet Transmission

### Introduction

PX-M04V400E Series video over fibre products provide transmission of up to 64 independent channels of video, up to 64 channels of data, up to 64 channels of audio channels and up to eight channels of Ethernet over a single optical fibre.

The robust design ensures extremely high reliability in unconditioned Out-of-Plant installations. These products utilise 8-bit/10-bit encoding for video transmission that exceeds the requirements of EIA\ RS-250C Medium-Haul specification and are completely compatible with any NTSC, PAL or SECAM CCTV video system. Plug-and-play design ensures ease of installation and free of electrical or optical adjustments.

LED indicators are also provided for rapidly system diagnostics.

Depending on video configurations, WT-V400E series includes five types;

PX-M04V400E-1V, PX-M04V400E-4V, PX-M04V400E-8V, PX-M04V400E-16V and PX-M04V400E-64V.



**1 Channel Video Series**  
(175mmx130mmx34mm)



**4 Channel Video Series**  
(286mmx217mmx34mm)



**8 Channel Video Series**  
(482mmx217mmx34mm)



**16 Channel Video Series**  
(482mmx217mmx44mm)

### Features

- Ethernet channel uses TDM technology
- Support 10M/100M Ethernet auto-negotiation
- 8-bit/10-bit digitised video transmission without any delay or distortion
- Completely compatible with NTSC, PAL and SECAM
- 16-bit/24-bit digitised encoding for audio channels
- Provide RS232, RS485/RS422, TTL, CC data interfaces
- High reliability in unconditioned Out-of-Plant environments
- LED indicators provide rapid indication of critical operating Parameters
- Easy installation and adjustment free

## PX-M04V400 Series

Video + Data + Audio + Ethernet Transmission

PX-M04V400series



Chassis - 482mmx217mmx264mm

### APPLICATIONS

- ITS Intelligent Traffic System Surveillance
- City Security Surveillance
- Long Distance CCTV
- Railway System Surveillance
- Video Conferencing
- Enterprise Video Surveillance

### TECHNICAL SPECIFICATION

#### VIDEO

Format: PAL/NTSC/SECAM  
Input/Output signal: 1Vp-p (75ohms)  
Bandwidth: 5Hz ~ 8MHz  
Differential Gain: < 1%  
Differential Phase: < 0.7o  
Signal-to-Noise Ratio (SNR): > 67dB (weighted)

#### AUDIO (4/8/16/64Channels)

Directions: any or Bi-directional  
Audio input: unbalanced  
Digitisation: 16bit @ 48k  
Bandwidth: 10Hz ~ 20KHz  
Signal-to-Noise Ratio (SNR): 70dB

#### DATA

Directions: any or Bi-directional  
Bandwidth: 115200bps  
Interface: RS-232/RS-422/RS-485

#### OPTICAL WAVELENGTH

1310/1550 nm, single-mode  
CWDM wavelengths

#### POWER SUPPLY

90 ~ 240 VAC / 47 ~ 63Hz

#### ENVIRONMENT

MTBF: > 100,000 hours  
Operating: -30oC ~ +70oC  
Storage: -40oC ~ +85oC  
Humidity: 0% to 95% , non-condensing

#### DIMENSIONS

ONE CHANNEL  
175mm x 130mm x 34mm( L x W x H)  
FOUR CHANNELS  
286mm x 217mm x 34mm( L x W x H)  
EIGHT CHANNELS  
482mm x 217mm x 34mm( L x W x H)  
SIXTEEN CHANNELS  
482mm x 217mm x 44mm( L x W x H)  
CHASSIS  
482mmx217mmx264mm

#### LED INDICATORS

Power, System status  
Video status, Data traffic

#### CONNECTORS

Optical: FC  
Video: BNC (gold plated centre-pin)  
Data: RJ45