X3NPro-PTH0404 Specifications

Introduction

X3NPro-PTH0404 is a cost-effective device specially developed for mobile video surveillance and remote video monitoring, featuring high functional scalability. It is equipped with a high-speed processor and an embedded operating system, integrating state-of-the-art H.265 video compression/decompression technologies, 3G/4G/Wi-Fi network transmission technologies, and GPS/BDS positioning technologies in the IT industry. It adopts the latest processor solution and supports recordings in formats of 1080p, 720p, WD1, WHD1, WCIF, D1, HD1, and CIF. Moreover, it allows real-time local recording and wireless uploading of vehicle status data and monitoring data. It can also be used in conjunction with the center software to implement professional functions such as alarm linkage, evidence center, remote management, video playback, track analysis, etc., embodying features of high reliability, installation flexibility, and maintenance convenience.

Strengths

- Embedded Linux operating system
- H.265/H.264 encoding and decoding to improve the memory space utilization
- 3.5-inch hard disk storage, hard disk heating & hard disk power-off protection technologies
- SD card backup
- Connection with storage units such as a fireproof box for disaster recovery backup
- Outstanding anti-vibration performance and high reliability, providing comprehensive functions

Specifications

Model		
	X3NPro-PTH0404	
Function Overview		
	Preview, video recording, playback, network transmission, and positioning	
System		
	Operating System	Linux
	Control Mode	CP4,mouse, EasyCheck, and network (3G/4G/Wi-Fi)
Video		
	Input	4-channel AHD + 4-channel IPC (PON power supply)
	Output	1-channel CVBS + 1-channel VGA
	Total Resource	AHD: 4 X 1080P @ 25 FPS (PAL) OR 4 X 1080P @ 25 FPS (NTSC) IPC: 4*1080P@30FPS(IPC)
Audio		
	Input	4-channel AHD + 4-channel IPC
	Output	1 channels
Display		
	Display Split	1/4/9-screen display
	Screen Display	Positioning information, alarms, license plate numbers, driving speed, time, etc.
	Operating Interface	GUI
Recording		
	Audio/Video Compression Format	Video H.264/H.265 Audio ADPCM,G.711U,G.711A
	Image Resolution	AHD: PAL: 1080p (1920 × 1080), 720p (1280 × 720), WD1 (928 × 576), WHD1 (928 × 288), WCIF (464 × 288), D1 (704 × 576), HD1 (704 × 288), CIF (352 × 288); NTSC: 1080p (1920 × 1080), 720p (1280 × 720), WD1 (928 × 480), WHD1 (928 × 240), WCIF (464 × 240), D1 (704 × 480), HD1 (704 × 240), CIF (352 × 240); IPC: 1080p (1920 × 1080), 720p (1280 × 720);
	Image Quality	Levels 1–8 adjustable (preferably Level 1)
	Recording Mode	Startup/Scheduled/Alarm event recording
	Alarm Recording Delay	0-30 min
Playback		
	Playback Channel	1-channel local playback
	Search Mode	By date/time, channel, or event
Network		

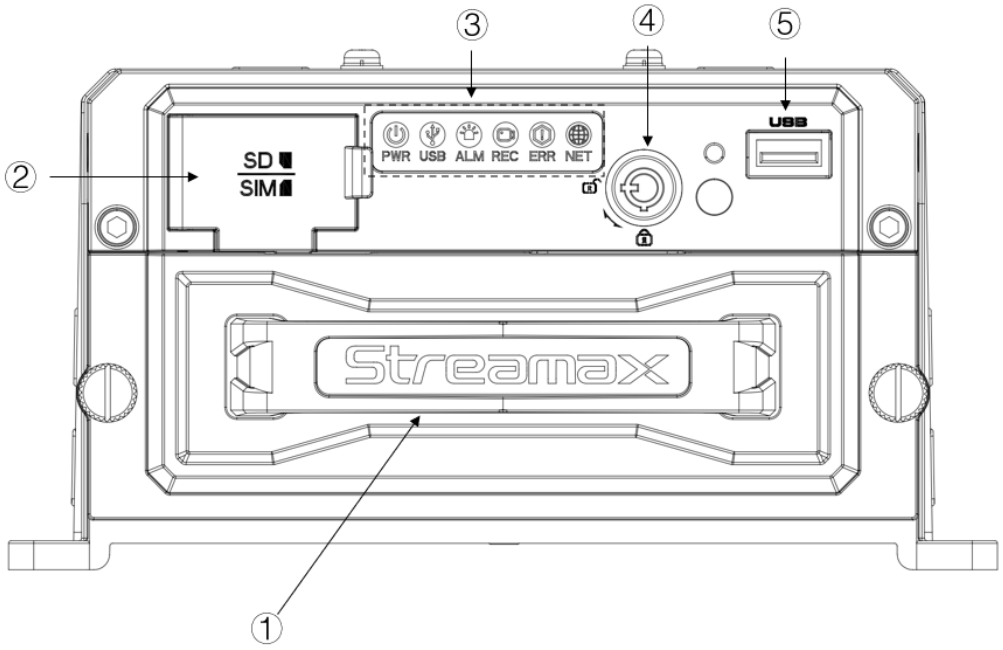
	3G/4G	Supported
	WIFI	Supported protocol: 802.11a/b/g/n
	Ethernet	1 × RJ45 (10/100 M)
Positioning		
	GPS	Supported G-mouse
Sensor		
	G-Sensor	Built-in 6-axis inertial sensor
Storage		
	HDD	1 × 3.5" SATA HDD + 1 × M.2 SSD, hard disk heating supported
	SD	Hot-swapping 32/64/128/256 GB SDXC
Port		
	USB	1 × USB2.0 (5pin aviation connector) + 1 × USB2.0 (Type A)
	SD	1 × SD card slot
	SIM	1 × SIM card slot
	Serial Port	2 × RS232, 2 × RS485
	CAN	1 × CAN
	IO	8-channel input and 2-channel output
	Pulse Speed Detection	1 channel
	Control Panel	CP4
	Intercom	1 × MIC port (CP4)
	VGA	1 × VGA
Power Supply		
	Input	DC 8-36V
	Output	5 V @ 500 mA & 12 V @ 500 mA
	Maximum Typical Power Consumption	45W
	Standby Power Consumption	≈ 0 W
Physical Characteristics		
	Dimensions (mm)	348.4x 189.5 x 95.7 (with rear shield and bracket)
	Weight (kg)	3.0 kg (without hard disks)
Environment		
	Operating Temperature	–40°C to +70°C (heated, without hard disks)
	Operating Humidity	8% to 95% (non-condensing)

Dimensions

(unit: mm)

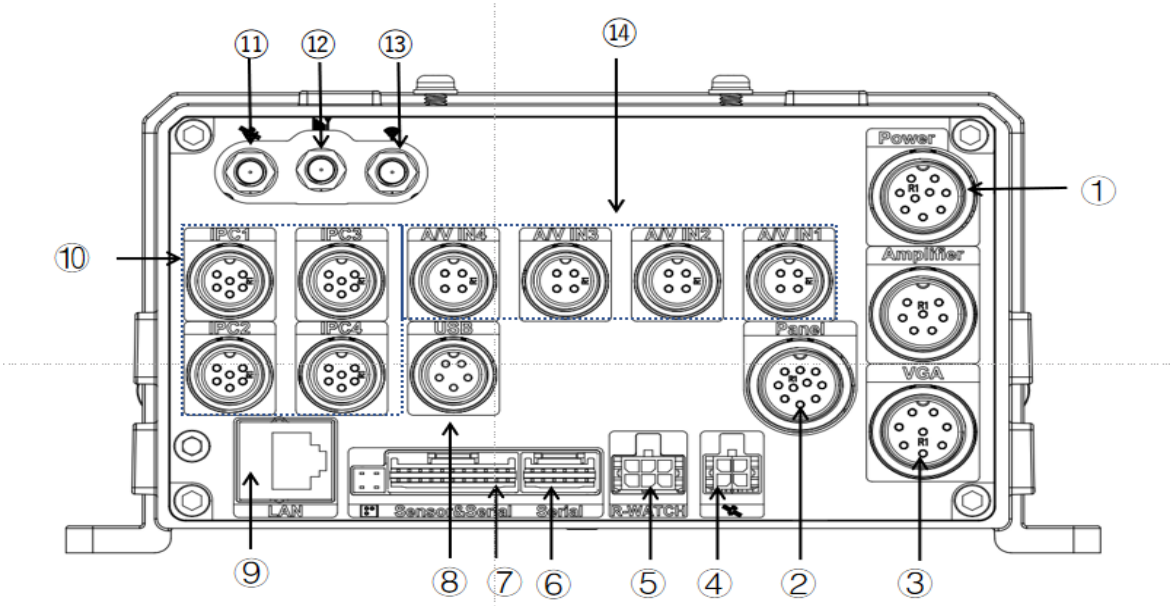
Panel Ports

Front panel



S/N	Name
1	Hard disk case (for holding a hard disk)
2	SD/SIM card slot
3	Indicator: power (PWR), USB, alarms (ALM), recording (REC), errors (ERR), network (NET)
4	Device lock
5	USB interface

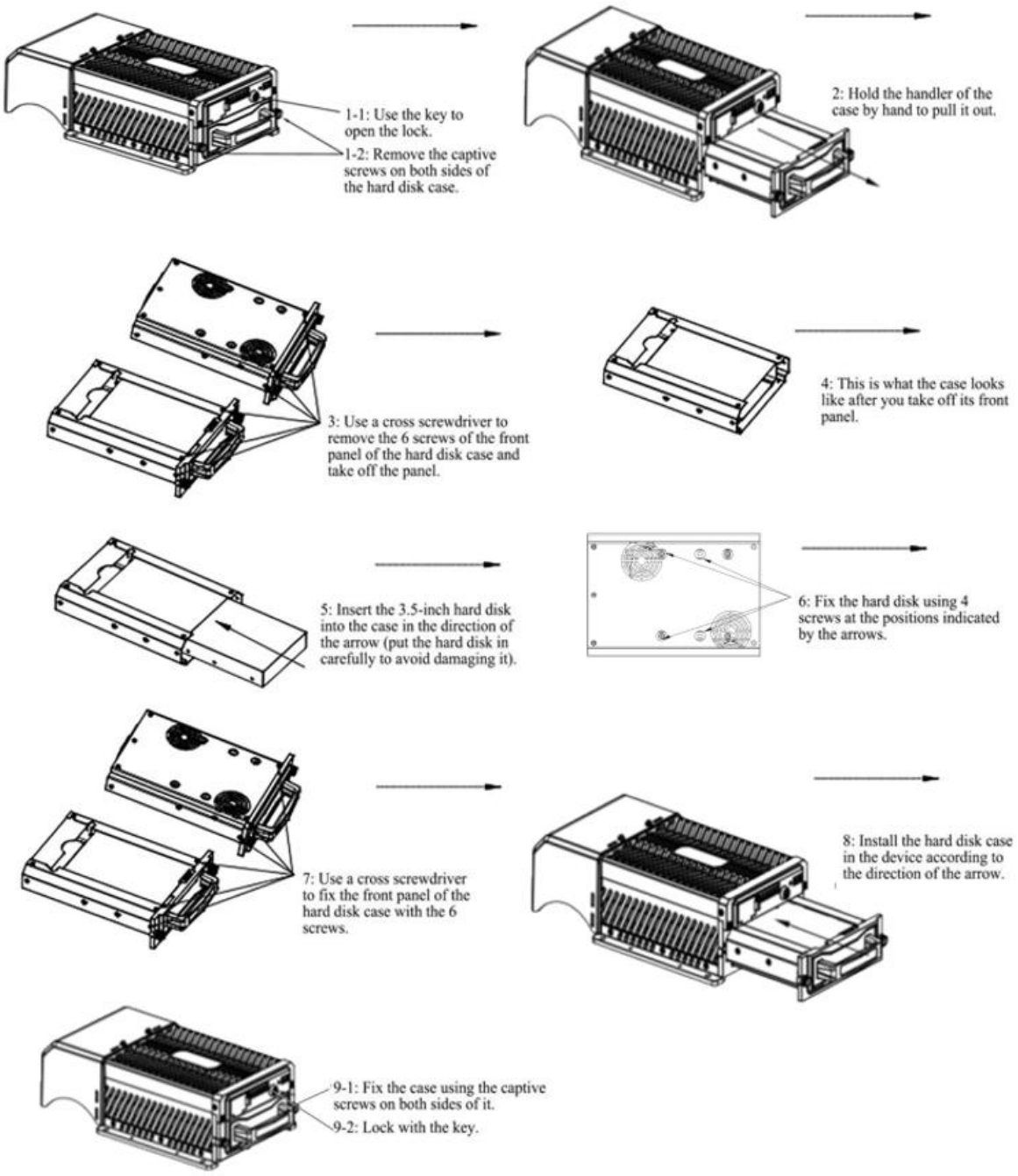
Rear panel:



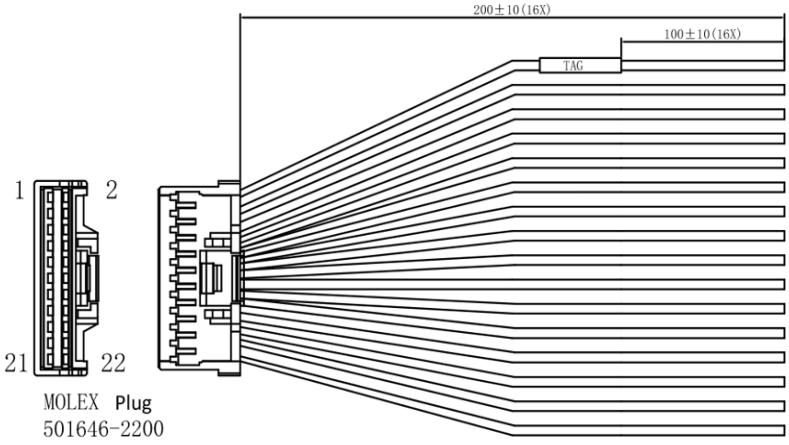
S/N	Silk Screen	Description
1	Power	Power Input
2	Panel	CP4 port
3	VGA	VGA port
4		External positioning module port
5	R-WATCH	R-WATCH port
6	Serial	Serial port
7	Sensor&Serial	I/O ports& Serial port
8	USB	USB interface
9	LAN	LAN port
10	IPC1~IPC4	IPC (PON power supply) audio/video input ports 1-4
11		Internal positioning module port
12		3G/4G antenna port
13		Wi-Fi antenna port
14	A/V IN1~A/V IN4	Analog audio/video input ports 1 to 4

Installation

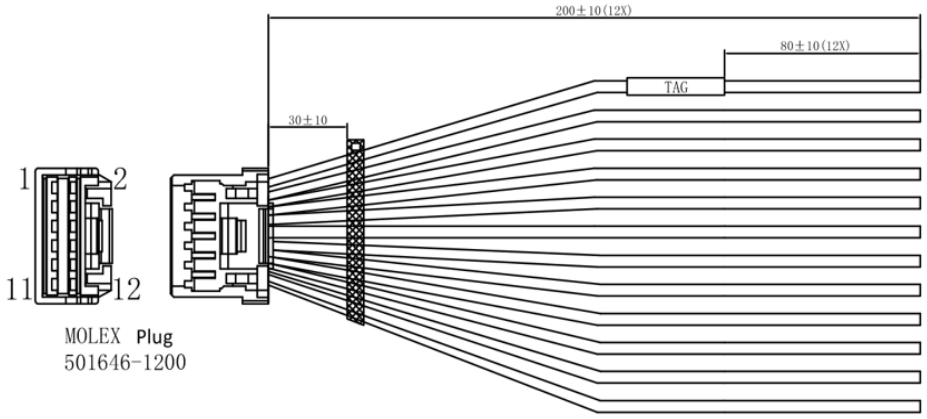
Hard Disk Installation



External Cable Connector Pinouts



501646-2200		标签内容
1	Red	SENSOR IN1
3	Gray	SENSOR IN2
5	Light Green	SENSOR IN3
7	Light Blue	SENSOR IN4
9	Gray	SENSOR IN5
11	Orange	SENSOR IN6
13	Blue & Black	SENSOR IN7
15	Blue & White	SENSOR IN8
17	Blue	SPEED IN
12	Red & White	SENSOR OUT1
14	Red & Yellow	SENSOR OUT2
19	Black	GND
21	Red	+5V
18	Black	GND
10	Green	232RX-1
8	White	232TX-1



501646-1200		TAG
1	White & Yellow	232TX-2
2	Green & Yellow	232RX-2
3	White & Black	CAN-H
4	Green & Black	CAN-L
5	Red	+5V
6	Black	GND
7	Black	GND
8	Red	+12V
9	White & Blue	485A-1
10	Green & Blue	485B-1
11	White & Blue	485A-2
12	Green & Blue	485B-2

MDVR Fails to Start

- ✧ Check the input power supply of the device by checking whether the power cable is correctly connected, whether the ground cable is connected to the battery, and whether the fuse in the power cable is intact.
- ✧ Check whether the ACC signal cable of the power supply device has a voltage (greater than 7 V).
- ✧ Check whether the key on the device is switched off.

MDVR Keeps Restarting

- ✧ Check whether the voltage is too low to start the device, causing the device to randomly restart.
- ✧ Hard disk/SD card failures may cause device startup failure. Remove the storage unit and turn on the device again to determine whether the storage unit is faulty.

Video Recording Does Not Work

- ✧ Check whether a storage unit is installed and in good contact and whether the storage unit can read data normally when connecting to a computer.
- ✧ The storage unit is not formatted. After the storage unit is inserted into our device, it needs to be formatted to perform normal data storage.
- ✧ Check whether there is a video signal input from the camera to the MDVR and whether there is a video image shown on the live view screen.

Video Files Have No Sound

- ✧ Check whether there is an external pickup connected or whether the camera features audio acquisition.
- ✧ Access the video channel settings and check whether the audio option is enabled.
- ✧ The channel that realizes the sound recording function must have video input and can perform video recording normally.

GPS Abnormality

- ✧ Check whether the GPS antenna is correctly installed and whether there is a GPS silk screen on the GPS antenna pedestal on the back of the MDVR.
- ✧ Check whether the antenna receiver is blocked. The antenna receiver must not be covered, or else signal reception

failure may occur as a result.

- ✧ The impacts caused by surrounding environments such as tree shelters, tunnels, driving near tall buildings and overpasses, thunderstorm weather, etc. may cause GPS signal loss or GPS to receive the wrong signal.

Device Cannot Be Shut Down in the Ignition Startup & Shutdown Mode

- ✧ Check whether the ACC signal cable connection is correct and whether there is no voltage on the ACC yellow line after the key is switched off.
- ✧ If the Timing Video Record is enabled and the current time has not exceeded the limit set in the recording time task table, the device cannot be shut down.