



## FTMD-X7Pro-16CH • MDVR Technical Datasheet



### FTMD-X7NPro-16CH MDVR - Highly Integrated Design



GPS Tracking



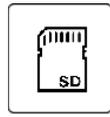
Geo Fencing



Playback Trips



Wi-Fi



SD Card



Live Tracking



CE UK CA PTCRB

### Product Summary

FTMD-X7NPro-16CH 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 network technologies, GPS/BDS positioning technologies, and Wi-Fi technology in the IT industry. It supports recordings in formats of 1080p and 720p. Moreover, it allows recording vehicle driving information and uploading videos remotely. It can also be used with the canter software to support alarm linkage by providing central remote video surveillance, vehicle management, and playback analysis based on the central database.

### Key Features:

- State-of-the-art H.265 encoding and decoding in the IT industry to improve the memory space utilization
- 3G/4G network technologies, GPS/BDS positioning technologies, and Wi-Fi technology (pluggable modules)
- 1080p/720p HD video recording 3.5-inch large hard disk, hard disk heating & hard disk power-off protection technologies
- Remote wake-up and IO wake-up

- Connection with storage units such as a fireproof box for disaster recovery backup
- Good anti-vibration performance and high reliability, providing comprehensive functions
- 16-channel PoE IPC

## Technical Specification

### Model

FTMD-X7NPro-16CH

### Function Overview

Preview, video recording, playback, network transmission, and positioning

### System

<b>Operating System</b>	Linux 4.9
<b>Control Mode</b>	CP4, mouse, Easy Check, and network (3G/4G/Wi-Fi)

### Video

<b>Input</b>	4-channel AHD + 16-channel IPC
<b>Output</b>	1-channel CVBS + 1-channel VGA (1080p downward compatible with 720p)
<b>Total Resource</b>	AHD: 4 × 1080p @ 25 FPS (PAL) or 4 × 1080p @ 30 FPS (NTSC) IPC: 16 × 1080p @ 30 FPS

### Audio

<b>Input</b>	4-channel AHD + 16-channel IPC
<b>Output</b>	2-channels

### Display

<b>Display Split</b>	1/4/9-screen display
<b>Screen Display</b>	Positioning information, alarms, license plate numbers, driving speed, time, etc.
<b>Operating Interface</b>	GUI

### Recording

<b>Audio/Video</b>	Video	H.264/H.265
<b>Compression Format</b>	Audio	ADPCM, G.711U, G.711A 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);
<b>Image Resolution</b>	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);	
<b>Image Quality</b>	Levels 1-8 adjustable (preferably Level 1)	
<b>Recording Mode</b>	Start-up/Scheduled/Alarm event recording	
<b>Alarm Prerecording</b>	0-60 min	
<b>Alarm Recording Delay</b>	0-30 min	

## Playback

<b>Playback Channel</b>	Local 1/4/9-channel local playback (Single-channel main stream, multi-channel  WEB 1/4/9-channel synchronous playback
<b>Search Mode</b>	By date/time, channel, or event

## Network

<b>3G/4G</b>	EVDO/TD-SCDMA/WCDMA/TDD-LTE/FDD-LTE (optional)
<b>WI-FI</b>	W217 module. Supported protocol: 802.11a/b/g/n/ac Supported frequency band: 2.4/5.0 GHz  LAN 10/100/1000 Mbit/s (RJ45 without indicator)

<b>Wired</b>	WAN 10/100/1000 Mbit/s (RJ45 without indicator)
--------------	--

## Positioning

<b>GPS</b>	Positioning, speed detection, and time synchronization
------------	--

## Sensor

<b>G-Sensor</b>	Built-in 6-axis inertial sensor
-----------------	---------------------------------

## Storage

<b>HDD/SSD</b>	1 × 3.5" SATA HDD or 2 × 2.5" SATA HDD/SSD, 20–26.1 mm thick, supporting hard disk heating
----------------	--

<b>SD</b>	Hot-swapping 32/64/128/256 GB SDXC
-----------	------------------------------------

## Port

<b>USB</b>	1 × USB3.0 (Type-A) + 1 × USB2.0 (Type-B)
------------	---

<b>eSATA</b>	1 × eSATA
--------------	-----------

<b>SD</b>	1 × SD card slot
-----------	------------------

<b>SIM</b>	1 × push-push SIM card slot
------------	-----------------------------

<b>Serial Port</b>	2 × RS232, 2 × RS485
--------------------	----------------------

<b>CAN</b>	2 × CAN
------------	---------

<b>IO</b>	8-channel input and 2-channel output
-----------	--------------------------------------

<b>Pulse Detection</b>	Speed 1 channel
------------------------	-----------------

## Power Supply

<b>Input</b>	DC 8~36V
--------------	----------

<b>Output</b>	5 V @ 500 mA & 12 V @ 500 mA
---------------	------------------------------

<b>Maximum Typical Power Consumption</b>	150W
--	------

<b>Standby Power Consumption</b>	≈ 0 W
----------------------------------	-------

## Physical Characteristics

### Dimensions

(L x W xH)

362.4 mm× 254 mm × 127 mm  
(With the bracket and rear shield)

Weight (kg)

5.8 kg (without hard disks)

### Environment

Operating Temperature

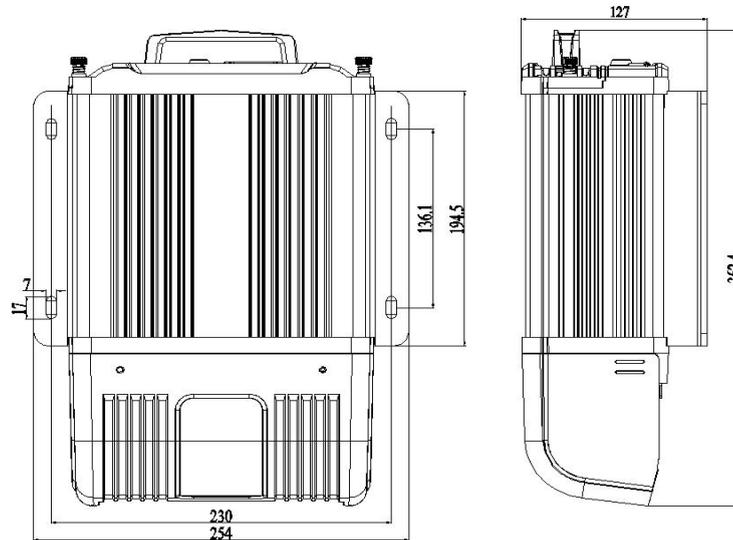
-40°C to +70°C  
(Heated, without hard disks)

Operating Humidity

8% to 90% (non-condensing)

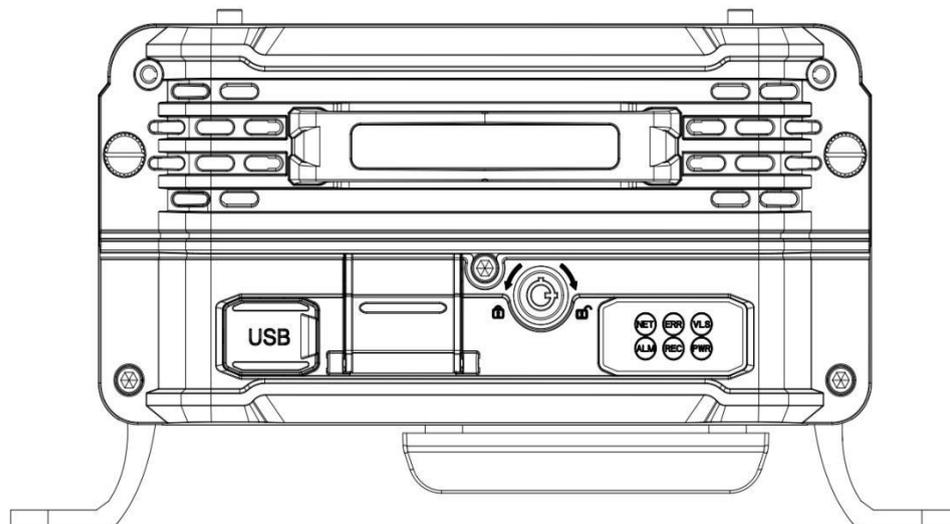
### Dimensions

(Unit: mm)

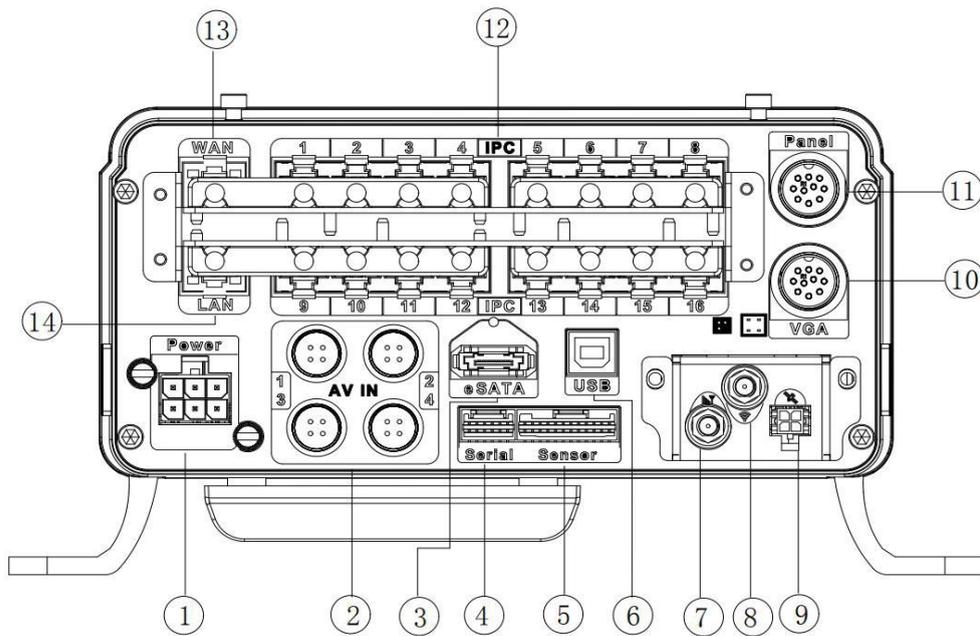


### Panel Ports

#### Front panel



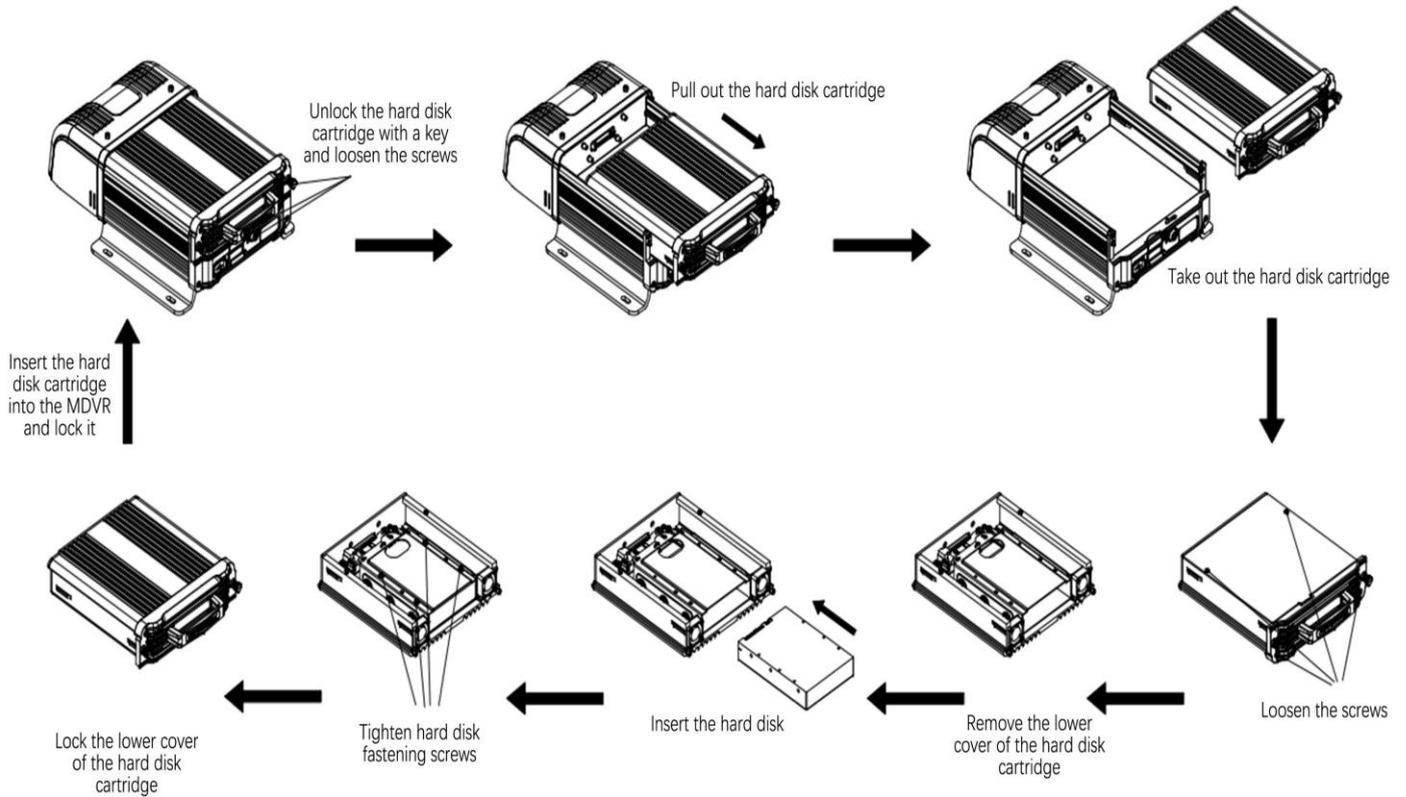
## Rear panel



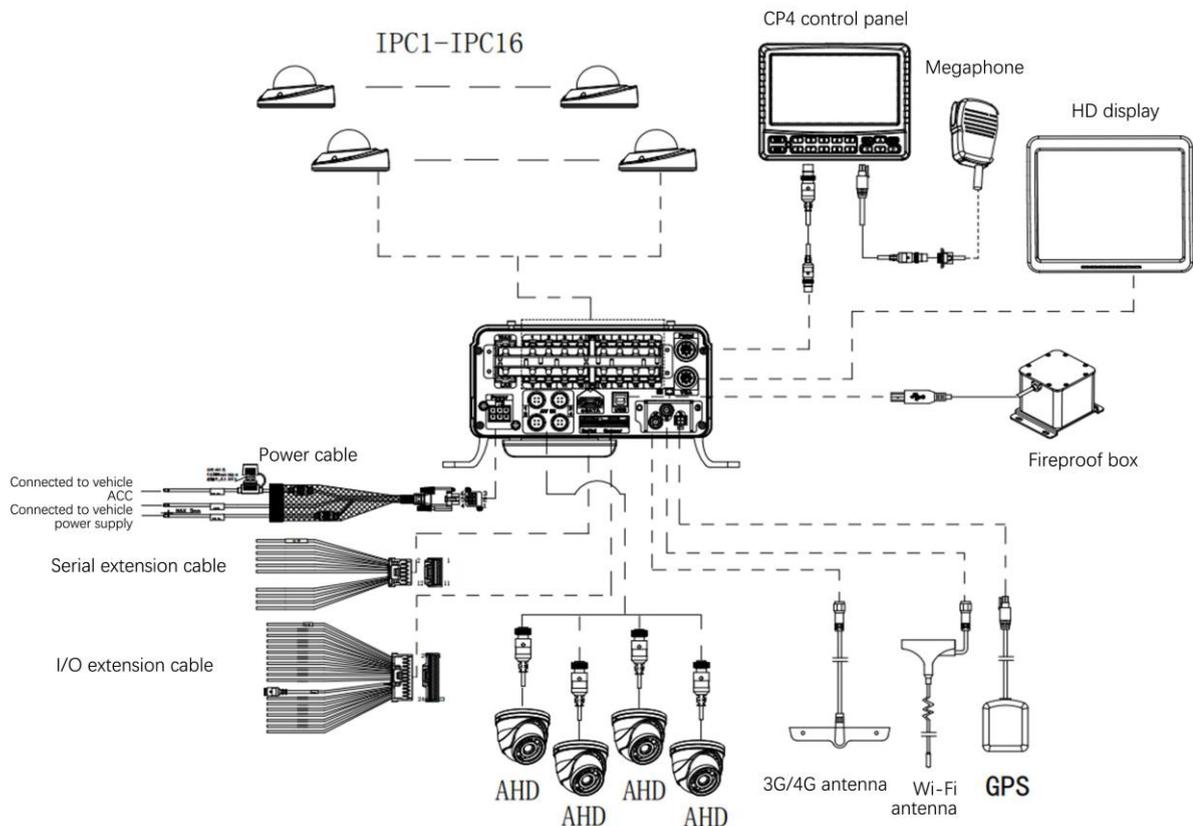
### Installation

S\N	Silk Screen	Description
1	Power	8–36 V DC power input
2	AV IN 1~4	AHD ports 1 to 4
3	eSATA	eSATA port
4	Serial	Serial port
5	Sensor	IO/Pulse port
6	USB	USB 2.0 port (Type B)
7		3G/4G antenna connector
8		Wi-Fi antenna connector
9		GPS/BDS antenna connector
10	VGA	VGA port
11	Panel	CP4 port
12	IPC 1~16	IPC ports 1 to 16
13	WAN	10/100/1000 Mbit/s RJ45 network port
14	LAN	10/100/1000 Mbit/s RJ45 network port

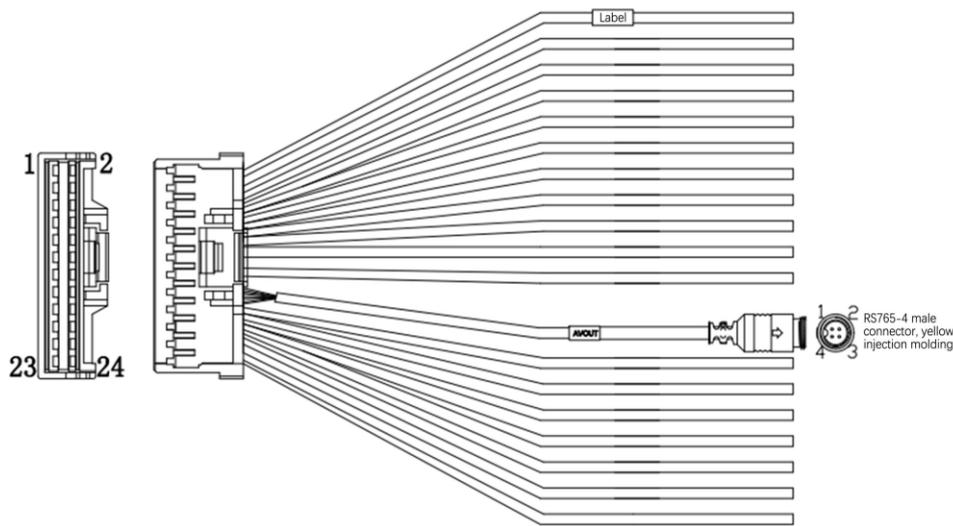
## Hard Disk Installation Guide



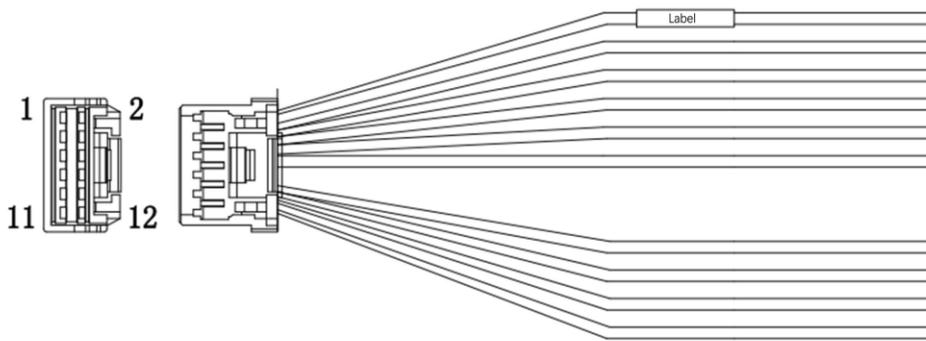
## Typical Wiring Diagram



## External Cable Connector Pinouts



Pinout		Label content
501646-2000		
1	Green	SENSOR IN1
3	Orange	SENSOR IN2
5	Purple	SENSOR IN3
7	Light blue	SENSOR IN4
2	Gray	SENSOR IN5
4	Light green	SENSOR IN6
6	Pink	SENSOR IN7
8	Yellow	SENSOR IN8
9	Red	+12V
18	Black	GND
11	Blue/Black	SENSOR OUT1
13	Blue/Black	SENSOR OUT2
12	4 V-OUT	
10	Black Shield	2 GND
16	Red	1 12V OUT
14	3 A-OUT	
15	Black	SPEED B
17	Blue	SPEED A
20	White/Blue	CAN-H1
22	Green/Blue	CAN-L1
24	Black	GND
21	White/Blue	CAN-H2
19	Green/Blue	CAN-L2
23	Black	GND



Pinout		Label content
501646-1200		
1	White/Red	232TX-1
2	Green/Red	232RX-1
3	White/Black	232TX-2
4	Green/Black	232RX-2
5	Red	+5V
6	Black	GND
9	White/Blue	485A-1
10	Green/Blue	485B-1
11	White/Yellow	485A-2
12	Green/Yellow	485B-2