FTMD-X3N-8CH
MDVR - Highly Integrated Design

GPS Tracking **Geo Fencing** **Playback Trips**
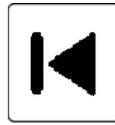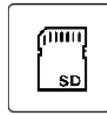
Wi-Fi **SD Card** **Live Tracking**

CE UKCA PTCRB

Product Summary

FTMD-X3N-8CH 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.

Key Features:

➢ Embedded Linux operating system
➢ AI function extension
➢ H.265/H.264 encoding and decoding to improve the memory space utilization
➢ 2.5-inch hard disk storage, hard disk heating & hard disk power off protection technologies
➢ Connection with storage units such as a fireproof box for disaster recovery backup
➢ HD VGA output

Technical Specification

Model
FTMD-X3N-8CH

Function Overview		
		Preview, video recording, playback, network Transmission , and positioning

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

Video		
	Input	4-channel AHD (1080p) + 4-channel IPC (1080p)
	Output	1-channel CVBS + 1 channel VGA AHD: 4 × 720p @ 25 FPS (PAL) or 4 × 1080p @ 12 FPS (PAL) or
	Total Resource	4 × 720p @ 30 FPS (NTSC) or 4 × 1080p @ 12 FPS (NTSC) IPC: 1 × 1080p @ 30 FPS
	Video Signal Standard	Level: 1 Vpp; impedance: 75 ohms NTSC/PAL (optional)

Audio		
	Input	4-channel AHD + 4-channel IPC
	Output	1-channel
	Audio Signal Standard	Level: 2 Vpp; input impedance: 4.7 kilohm

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	Video	H.264/H.265
	Compression Format	Audio	ADPCM, G.711U, G.711A
	Storage Temperature	-40°C +70°C AHD:

	Image Resolution	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	Start-up/Manual/Scheduled/Alarm event Recording
	Alarm Prerecording	0-60 min
	Alarm Recording Delay	0-30 min
Playback		
	Playback Channel	1-channel local playback
	Search Mode	By date/time, channel, or event
Network		
	3G/4G	EVDO/TD-SCDMA/WCDMA/TDD-LTE/FDD- LTE (optional)
	WIFI	W217 module. Supported protocol: 802.11a/b/g/n/ac Supported frequency band: 2.4/5.0 GHz
	Ethernet	4 × IPC 6-pin aviation plug (100 Mbit/s, PON powered) + 1 × RJ45 (100 Mbit/s)
Positioning		
	GPS/BD	Positioning, speed detection, and time synchronization
Sensor		
	G-Sensor	Built-in 6-axis inertial sensor
Storage		

	HDD/SSD	1 × 2.5" SATA HDD or SSD, 7 mm/9.5 mm/15 mm thick, supporting hard disk heating
	SD	Hot-swapping 32/64/128/256 GB SDXC

Port

	USB	1 × USB2.0(Type A) + 1 × USB2.0(Type B)
	SD	1 × SD card slot
	SIM	1 × SIM card slot
	Serial Port	2 × RS232,2 × RS485(1 × R WATCH)
	CAN	1 × CAN
	IO	8-channel input and 2-channel output
	Pulse Speed Detection	1-channel
	Control Panel	CP4\CP5
	Intercom	1 × MIC port (CP4)

Power Supply

	Input	DC 8-36 V
	Output	5 V @500 mA & 12V @500 mA
	Maximum Typical Power Consumption	50 W
	Standby Power Consumption time	≈ 0 W

Physical Characteristics

	Dimensions (mm)	281 × 167 × 92.8 (With the bracket and rear shield)
	Weight (kg)	2.4 (with hard disks)

Environment

	Operating Temperature	−40°C to +70°C (Heated, without hard disks)
	Operating Humidity	8% to 95% (non-condensing)

AI

MDVR AI	Fleetly AHD camera CA29M (DSM) and CA20S3.0 (ADAS)

Dimensions

(Unit: mm)
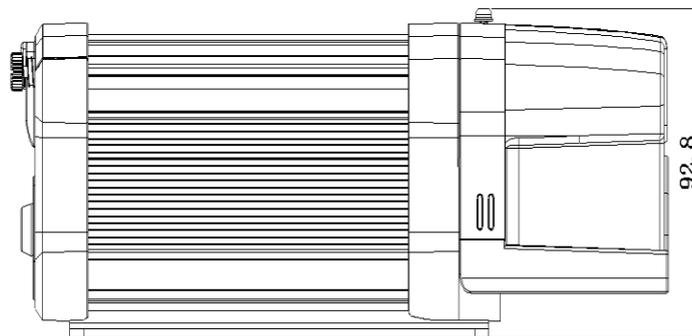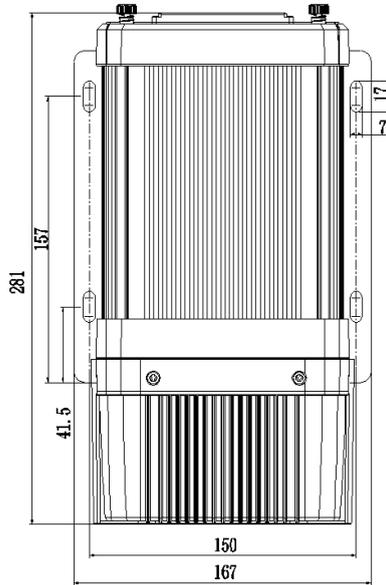
Panel Ports

Front panel
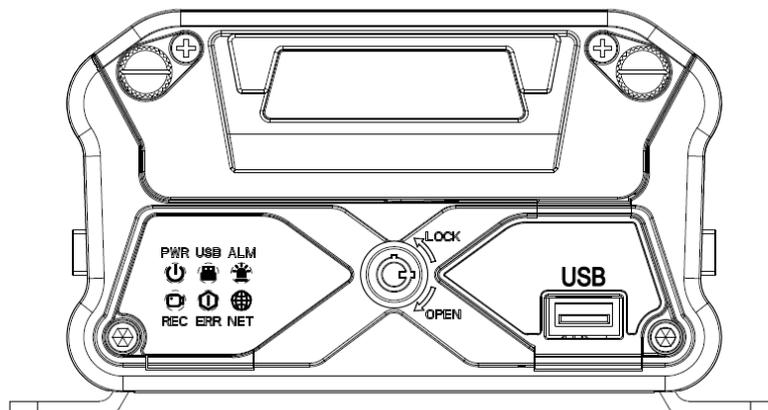
Rear panel
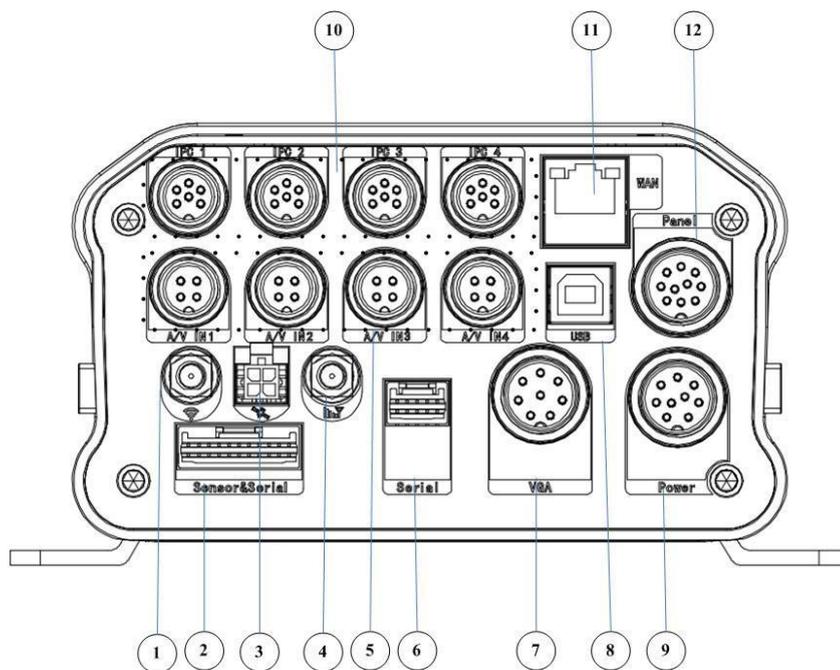
S\N	Silk Screen	Description
1	📶	Wi-Fi antenna connector
2	Sensor & Serial	IO port & serial port
3	🛰	GPS/BDS antenna connector
4	📶	3G/4G antenna connector
5	A/V IN 1~4	Analog audio/video input ports 1 to 4
6	Serial	Serial port
7	VGA	VGA port
8	USB	USB 2.0 port (Type B)
9	Power	8-36 V DC power input
10	IPC1-4	IPC audio/video input ports 1 to 4
11	WAN	100 Mbit/s network port
12	Panel	CP4 port

AHD1---AHD4   IPC1---IPC4   Control Panel

Wi-Fi antenna

External GPS

Megaphone

Vehicle-mounted black box

Power adapter cable
Connected to vehicle ACC
Connected to vehicle power supply

I/O serial extension cable   3G/4G antenna   Serial extension cable

Display

R-WATCH
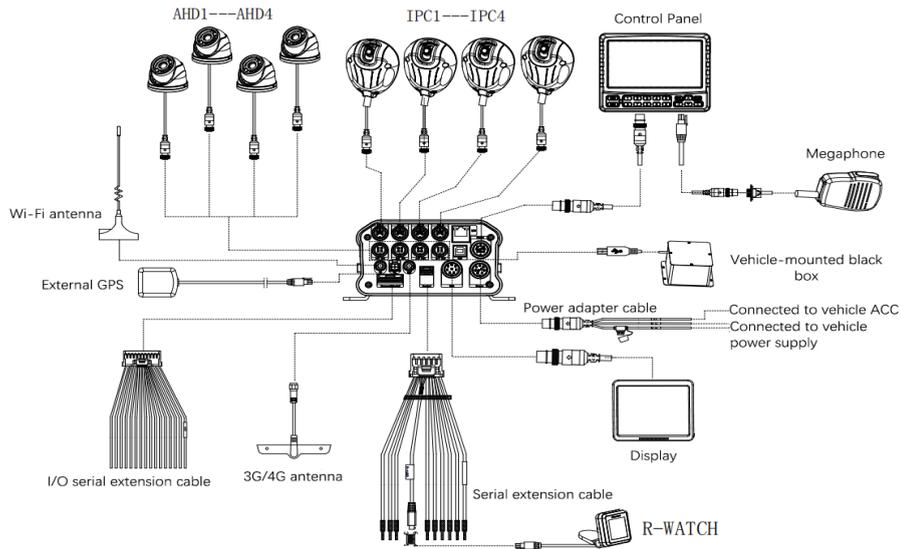
Hard Disk Installation

Installation of Hard Disks with 9.5 mm/7.0 mm Thickness

Open the hard disk cartridge

Put in the hard disk

Lock the hard disk cartridge according to the original track

Lock the hard disk
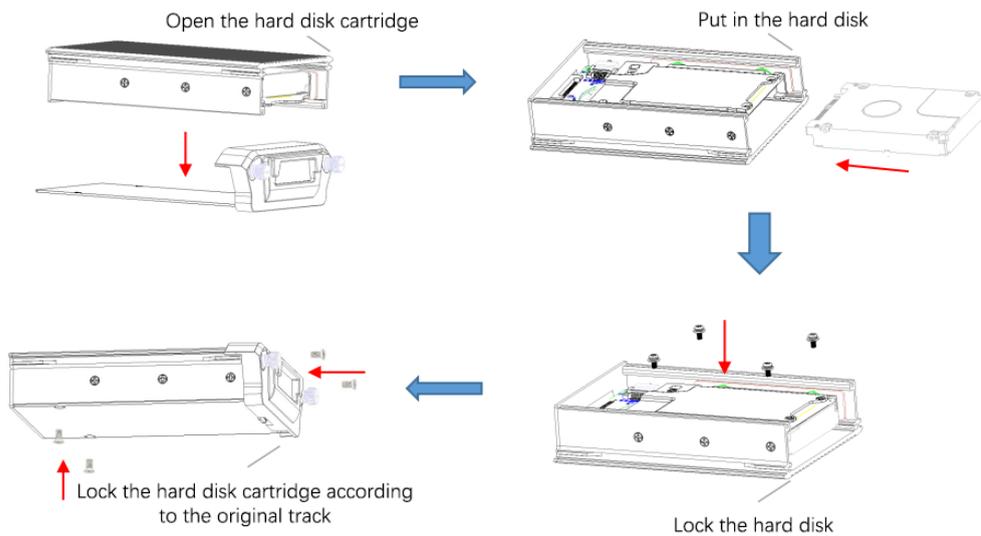
Installation of Hard Disks with 15 mm Thickness

If it is originally compatible with hard disks with 9.5 mm/7.0 mm thickness, and a hard disk with 15 mm thickness is to be installed, you need to remove the mounting bracket before installing.

Remove the bracket
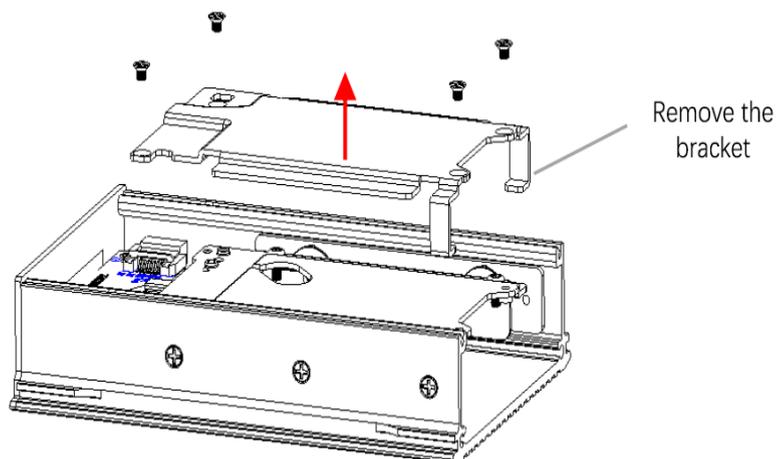
External Cable Connector Pinouts

Alarm and serial cable connector pinout

200±10 (16X)		
100±10(16X)		

Label

1 2
21 22
Molex connector 501646-2200
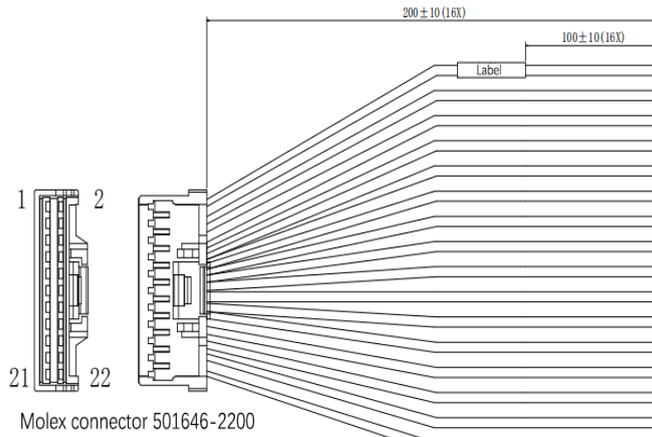
Pinout

501646-2200		Label content
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

Serial cable connector pinout

Label
1 2
11 12
Molex connector 501646-1200
R-watch
Small 5559-6P (HR), black injection molding
Black heat shrink tubing L=20±3mm
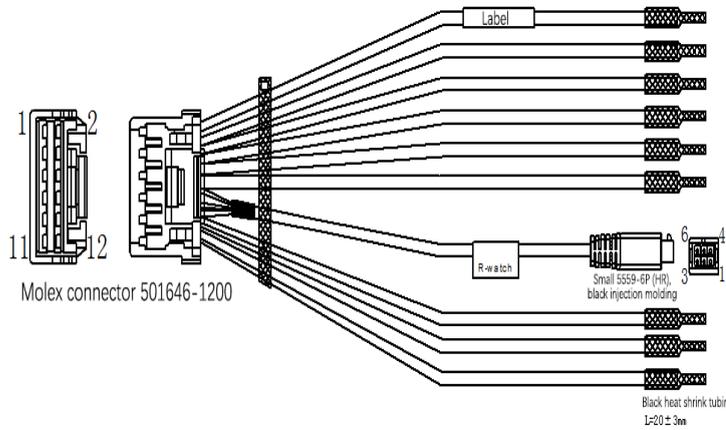
Pinout

501646-1200		Label content
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
8	Red	+12V

501646-1200		Small 5559-6P
7	Black	3 GND
8	Red	6 +12V
9	White	4 485A-1
10	Yellow	5 485B-1
11	White/Blue	485A-2
12	Green/Blue	485B-2