FTMD-X5N-12CH
MDVR - Highly Integrated Design

GPS Tracking	Geo Fencing	Playback Trips
Wi-Fi	SD Card	Live Tracking
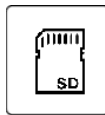
CE UKCA PTCRB

Product Summary

The FTMD-X5N-12CH is a high performance mobile DVR 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 Linux operating system, integrating state of the art H.265 video compression/decompression technologies, 4G/Wi Fi mobile wireless network transmission technologies, and GPS/BDS positioning technologies in the IT industry.

Key Features:

➢ Supports 8 AHD Channels (1080p) + 4 IPC Channels (1080p)

➢ Embedded Linux operating system

➢ AHD with AI function extension

➢ H.265/H.264 encoding and decoding to improve the memory space utilization

➢ Supports upto 2TB (2.5") hard disk storage with 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

> Good anti-vibration performance and high reliability, providing comprehensive functions

Technical Specification

Model		
		FTMD-X5N-12CH

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	8-channel AHD + 4-channel IPC
	Output	1-channel CVBS + 1-channel VGA
	Total Resource	AHD: 8 × 720p@ 25 FPS (PAL) or 8 × 1080p @ 10 FPS (PAL) or 8 × 720p @ 30 FPS (NTSC) or 8 × 1080p @ 10 FPS (NTSC) IPC: 4 × 1080p @ 30 FPS
	Video Signal Standard	Level: 1 Vpp; impedance: 75 ohms NTSC/PAL (optional)

Audio		
	Input	8-channel AHD + 1-channel IPC
	Output	2-channels
	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
	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);	
Image Resolution	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	
Mirrored Recording	Supported	

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	1 × RJ45 (10/100 M/1000 M)

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	2 × SIM card slot
	Serial Port	2 × RS232, 3 × RS485(1 × R WATCH)
	IO	8-channel input and 2-channel output
	Pulse Speed Detection	1-channel
	Control Panel	CP4\CP5
	Intercom	1 × MIC port (CP4)
	VGA	1 × VGA

Power Supply

	Input	DC 8-36 V
	Output	5 V @500 mA & 12 @500 mA
	Maximum Typical Power Consumption	70 W
	Standby Power Consumption time	≈ 0 W

Physical Characteristics

	Dimensions (mm)	295 mm × 222 mm × 89 mm (With the bracket and rear shield)
	Weight (kg)	3.20 (with hard disks)

Environment

	Operating Temperature	−40°C to +70°C

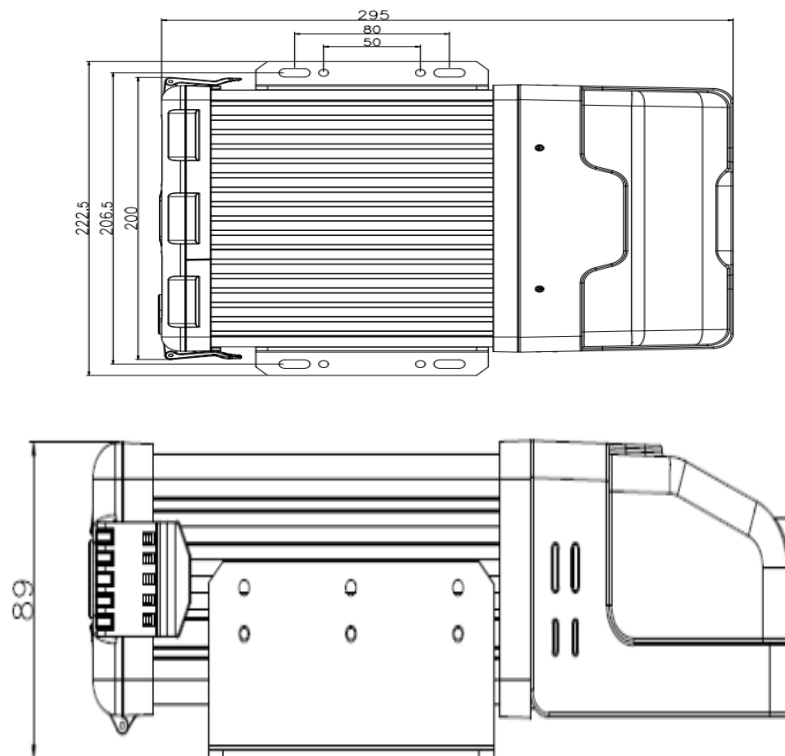|		
		(Heated, without hard disks)
Operating Humidity		8% to 95% (non-condensing)
AI		
MDVR AI		Fleetly AHD camera CA29M (DSM) and CA20S3.0 (ADAS)

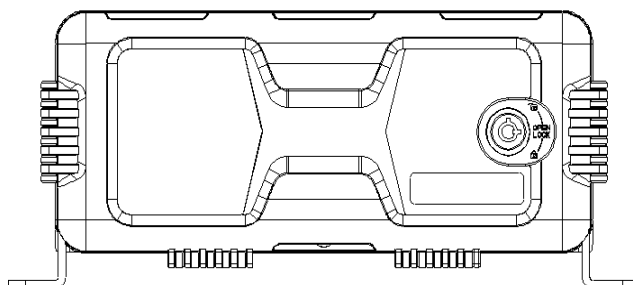## Dimensions

(Unit: mm)

Panel Ports

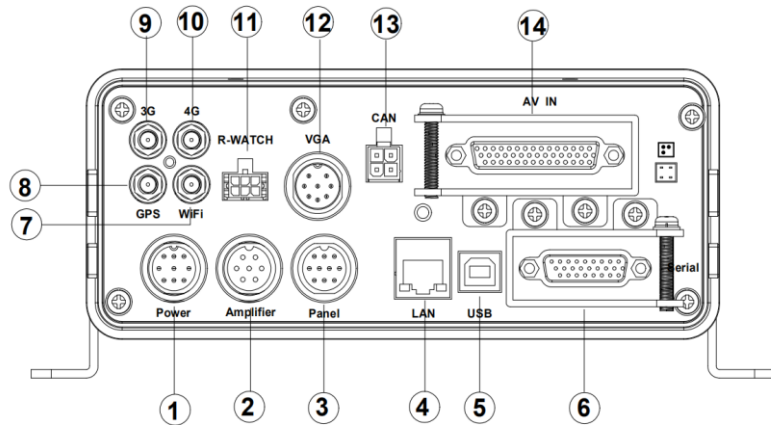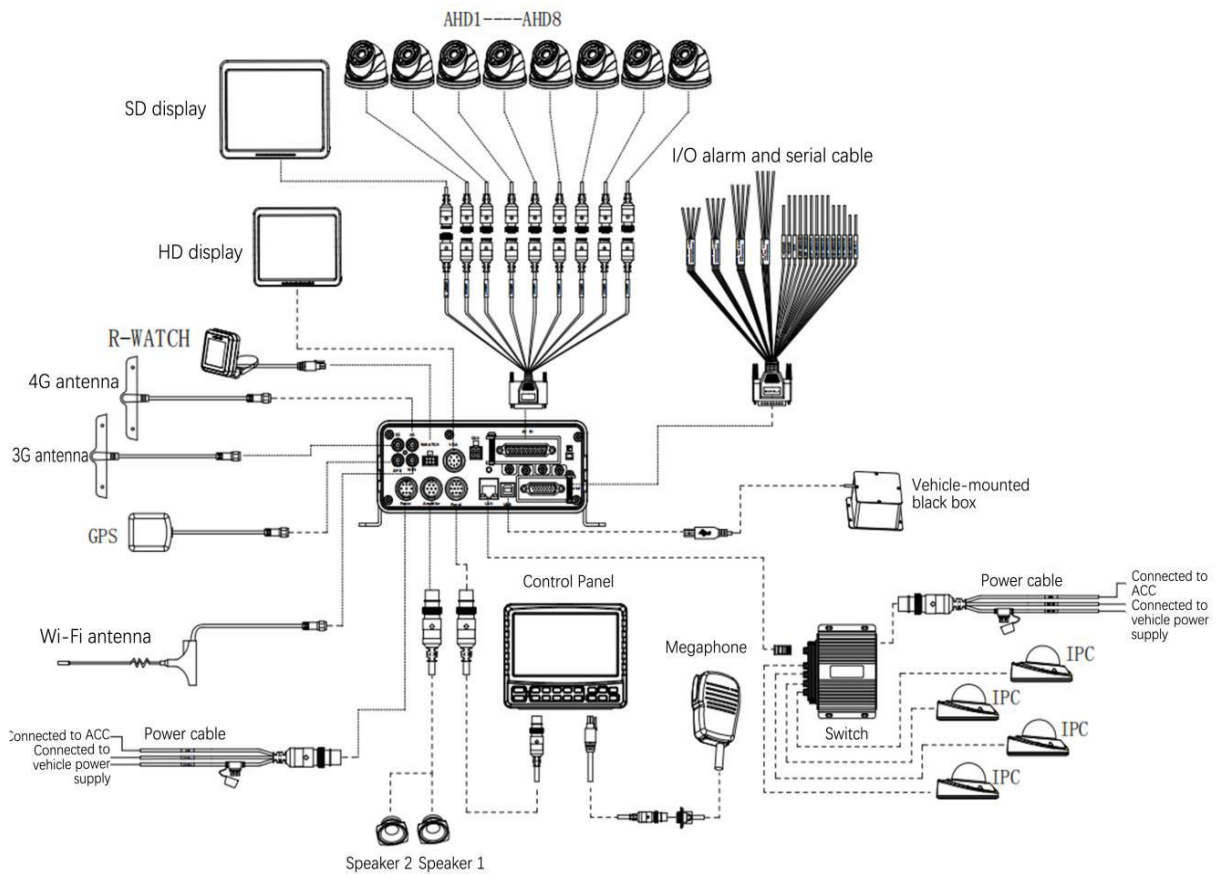**Front panel**   **Rear panel**
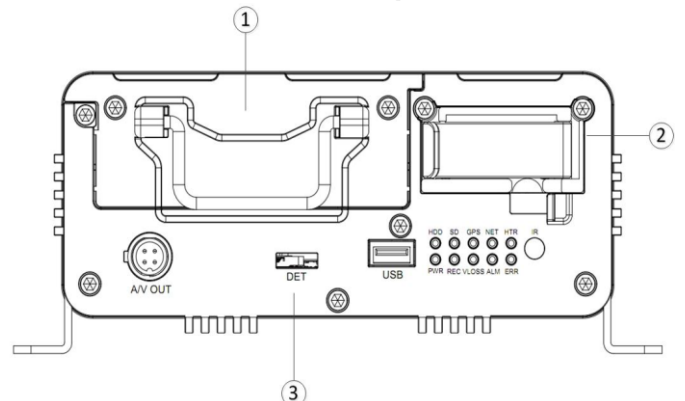
S/n	Name
1	Hard disk module
2	Communication module
3	Main module (including the A/V OUT, DET, USB port, and indicator)

S\N	Silk Screen	Description
1	DC8-36V	Power input port
2	Amplifier	Power amplifier port
3	Panel	CP4 port
4	LAN	Network port
5	USB	USB port
6	Serial	Serial port
7	WIFI	Wi-Fi antenna connector
8	GPS	GPS antenna connector
9	3G	3G antenna connector
10	4G	4G antenna connector
11	R-WATCH	R-WATCH port
12	VGA	VGA port
13	CAN	CAN port

AHD1----AHD8

SD display

HD display

R-WATCH

4G antenna

3G antenna

GPS

Wi-Fi antenna

Connected to ACC
Connected to
vehicle power
supply

Power cable

Speaker 2 Speaker 1

I/O alarm and serial cable

Control Panel

Megaphone

Switch

Vehicle-mounted
black box

Power cable

Connected to
ACC
Connected to
vehicle power
supply

IPC

IPC

IPC

IPC

SIM Card Insertion

1-2. Unfasten the clips
on both sides and open
the front cover.

1-1. Insert the key and
turn it clockwise to unlock
the hard disk cartridge.

2. Open the card cover, insert
the SIM1 (3G)/SIM2 (4G) card
and SD card (lower), and
close the card cover.

3-1. Close the front cover
and fasten the clips on both
sides.

3-2. Lock the
hard disk
cartridge.

Hard Disk Installation

1-2. Unfasten the clips on both sides and open the front cover.

1-1. Insert the key and turn it anticlockwise to unlock the hard disk cartridge.

2. Press the hard disk cartridge downward to pull it out.

3. Loosen the 4 screws.

4. Reverse the hard disk cartridge (as shown in the figure below) and insert the hard disk.

5. Tighten the hard disk screws.

6. Tighten the 4 screws.

7. Press the hard disk downward to put it in the hard disk cartridge.

8-1. Close the front cover and fasten the clips on both sides.

8-2. Lock the hard disk cartridge.

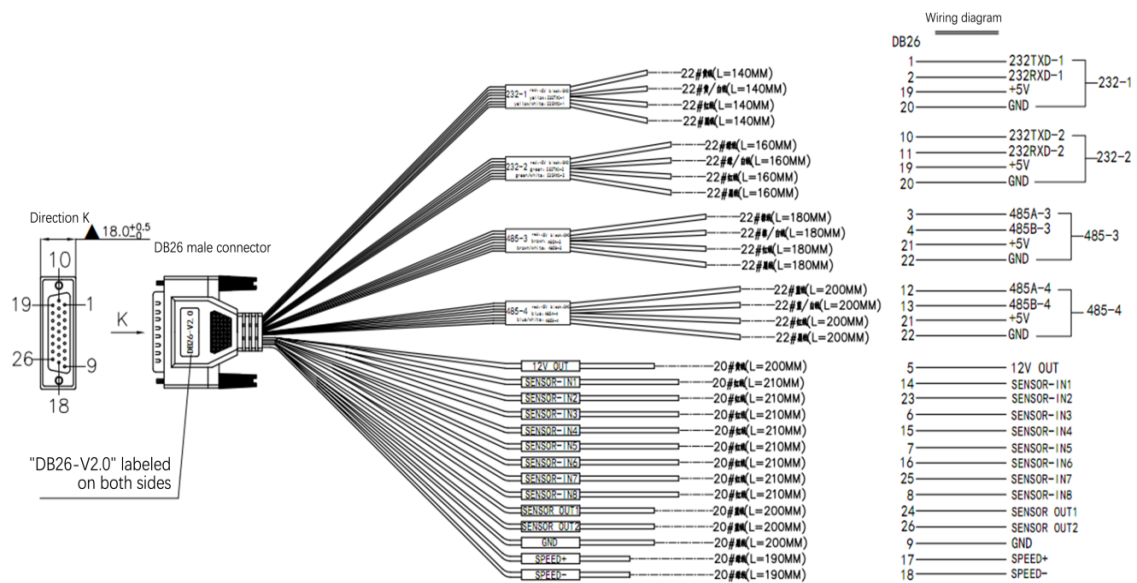### *External Cable Connector Pinouts*

Alarm and serial cable connector pinout

Video cable connector pinout