Multichannel Mobile Video Recorder

auto eye**Xpert**

PRO SERIES
8 Channel (4xAHD + 4xIP) Hard Drive Recorder

Part numbers:
AEX-ST-DVR-X3-1 (no wireless options, 1TB hard drive fitted), AEX-ST-DVR-X3-4W (wi-fi and 4G options fitted, no storage),
AEX-ST-DVR-X3-4W1 (wi-fi and 4G options, 1TB hard drive fitted), AEX-ST-DVR-X3-4W2 (wi-fi and 4G options, 2TB SSD fitted)

KEY FEATURES

- Connects 4 x AHD cameras interfaces and 4 x IP (PON) cameras
- Up to 1080p resolution of H.264/H.265 encoding for each camera channel
- One CVBS video output interface
- One VGA video output interface with up to 1080p resolution
- 1 x 2.5" HDD/SSD up to 2TB, with built-in shock and vibration protection
- On-board SD card data backup/mirror for enhanced data security
- Wireless options include 3G/4G module and Wi-Fi module providing flexible data transmission solutions for live streaming and downloads
- Built-in GPS (Global Positioning System) module precisely positioning the vehicle via the satellite and recording the location information in the video stream
- Built-in 6-axis accelerometer with configurable alarm thresholds for each axis e.g., to alert to impact, hard cornering/braking etc
- 8 x latched sensor inputs, configurable for high/low or volt-free connection for e.g., brakes, indicators, blues, siren, etc
- 2 x latched alarm outputs to drive external LED/relay devices
- Specialised aviation connectors ensuring signal stability
- Shutdown delay (0 h to 6 h) and 24-hour scheduled start-up/shutdown
- Battery protection avoids running vehicle battery at dangerously low levels
- Wide-range power input (+9 VDC to +32 VDC) to support both 12 volt and 24 volt vehicles
- Power supply reservoir prevents data loss from vehicle stalling and power surges
- Configuration options via touch screen, USB mouse, IR controller or web browser interface
- Wide ranging operation in ambient conditions from -40ºC to +70ºC (DVR only – storage media subject to separate spec)
- Custom video watermark overlays for time, date, speed, alarms, etc
- Options for remote messaging services (voice and text), ADAS (white line crossing, pedestrian sensing, proximity-vs-speed), and Drive Status (distracted, smoking, phone use etc)

APPLICATIONS

- **Fire Appliance**
  - All-round view supported (front, rear, sides front and rear, internal) to ensure high levels of safety and security for fire crew
  - Switchable audio recording based on alarms ensures privacy and GDPR requirements
  - Log activation of blues, siren etc, and optionally use to switch video functions
  - Automated or manual downloads for easy data management in the cloud
  - Live streaming to mobile devices to support quick and easy fleet and scene management

- **Police Cell Van**
  - Cover multiple cells, Officers, and prisoner entry/exit points to ensure safety during loading and transit
  - Additional video channels available to cover forward and rear facing positions for vehicle safety
  - Panic button feature to initiate live stream and/or place timeline markers
  - Log activation of blues, siren etc, and optionally use to switch video functions

- **Ambulance Patient Transport and A&E Ambulance**
  - Cameras for external (front, rear, sides) and internal (patient treatment saloon)
  - Built-in privacy for saloon cameras, with video switch on/off via dedicated panic strips etc and alarm output for warning systems
  - Wireless connectivity for automated downloads to cloud service
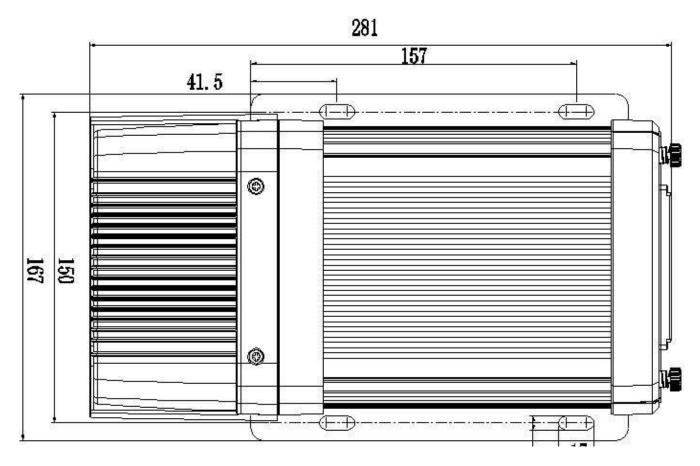 - Log activation of blues, siren etc, and optionally use to switch video functions

8 Channel (4xAHD + 4IP) Hard Drive Recorder AEX-ST-DVR-X3

Specification

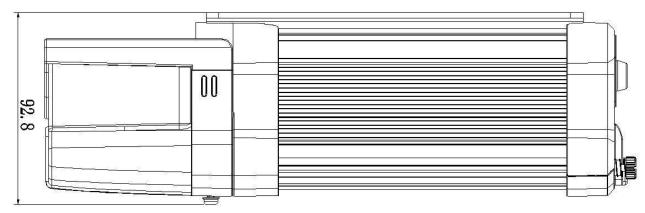| MODEL		AEX-ST-DVR-X3
System	Operating System	Linux 4.9
	Control Mode	CP4, mouse, EasyCheck and network (3G/4G/Wi-fi)
Video	Input	4-channel AHD + 4-channel IPC
	Output	1-channel CVBS + 1-channel VGA
	Total Resource	AHD: 4 x 720p @ 25 FPS (PAL) or 4 x 1080p @ 12 FPS (PAL) or 4 x 720p @ 30 FPS (NTSC) or 4 x 1080p @ 12 FPS (NTSC) IPC: 4 x 1080p @ 30 FPS
	Video Signal	Standard - Level: 1 Vpp; impedance: 75 ohm NTSC/PAL (optional)
Audio	Input	4-channel AHD + 4-channel IPC
	Output	1 channel
	Audio Signal	Standard - Level: 2Vpp; input impedance: 4.7 kilohm
Display	Display Split	1/4/9-screen display
	Screen Display	Positioning imformation, 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
	Image Resolution	AHD: PAL - 1080p (1920x1080), 720p (1280x720), WD1 (928x576), WHD1 (928x288), WCIF (464x288), D1 (704x576), HD1 (704x288), CIF (352x288) NTSC - 1080p (1920x1080), 720p (1280x720), WD1 (928x480), WHD1 (928x240), WCIF (464x240), D1 (704x480), HD1 (704x240), CIF (352x240) IPC - 1080p (1920x1080), 720p (1280x720)
	Image Quality	Levels 1-8 adjustable (preferably Level 1)
	Recording Mode	Startup/Scheduled/Alarm event recording
	Alarm Prerecording	0-60 min
	Alarm Recording Delay	0-30 min
Playback	Playback Channel	Local 1/4-channel playback and web based1/4/8-channel playback
	Search Mode	By date/time, channel, or event
Network	3G/4G	EVDO/TD-SCDMA/WCDMA/TDD-LTE/FDD-LTE (optional)
	WI-FI	W217 module. Supported protocol: 802.11a/b/g/n/ac Supported frequency band: 2.4/5.0 GHz
	Ethernet	4 x IPC 6-pin availation plug (100 Mbit/s, PON-powered) + 1 x RJ45 (100 Mbit/s)

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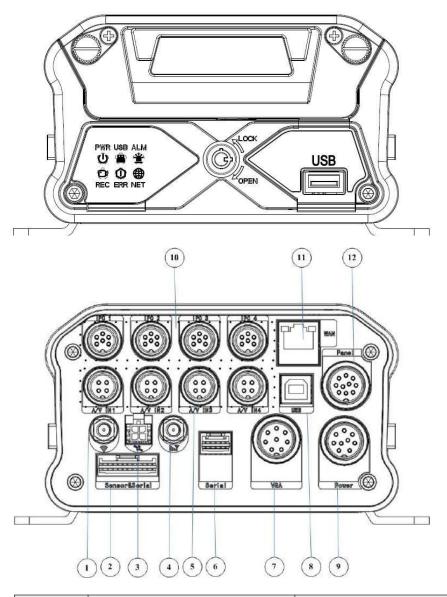|		
Positioning	GPS/BD	Positioning speed detection, and time sysnchronisation
Sensor	G-Sensor	Built-in 6 axis inertial sensor
Storage	HDD/SSD	1 x 2.5" SATA HDD or SSD, 7/9.5/15mm thick, supporting hard disk heating
	SD	Hot-swapping 32/64/128/256 GB SDXC
Port	USB	1 x USB2.0 (Type A) + 1 x USB2.0 (Type B)
	SD	1 x SD card slot
	SIM	1 x SIM card slot
	Serial Port	2 x RS232, 2 x RS485 (1 x R-WATCH)
	CAN	1 x CAN
	IO	8-channel input and 2-channel output
	Pulse Speed Detection	1 channel
	Control Panel	CP4\CP5
	Intercom	1 x MIC port (CP4)
Power Supply	Input	DC 8~36V
	Output	5V @ 500mA & 12V @ 500mA
	Power Consumption	Maximum typical: 50W
	Standby Power	≈ 0W
Physical Characteristics	Dimensions (mm)	281 x 167 x 92.8 (with the bracket and rear shield)
	Weight (kg)	2.4kg (without hard disks)
Environment	Operating Temperature	-40℃ to +70℃ (heated, wthout hard disks)
	Operating Humidity	8% to 95% (non-condensing)
AI	MDVR AI	Streamax AHD camera CA29M (DSM) and CA20S3.0 (ADAS)

Dimensions

Panel Ports

S/N	Silk Screen	Description
1	📶	Wi-fi antenna connector
2	Sensor&Serial	IO port & serial port
3	🛰	GPS/BDS antenna connector
4	⏸Y	3G/4G antenna connector
5	A/V IN1~4	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

Typical Wiring Diagram

AHD1---AHD4

IPC1---IPC4

Control Panel

Microphone

Wi-Fi antenna

External GPS

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