Technical Specifications

MOBOTIX MOVE NVR-8

MOBOTIX MOVE Plug & Play NVR Series

The MOBOTIX MOVE NVR "Plug & Play" series has been exclusively designed to support the MOBOTIX MOVE IP Camera series with powerful recording by deep integration protocols out-of-the-box. The integrated 8-port PoE switch allows direct connection of IP cameras without extra power supply. NVRs are equipped with M.2 (M-Key) and iSCSI communication interfaces that provide for seamless adaptation to the requirements of the installation. The web management interface allows monitoring and configuring PoE power consumption, network connection quality, and controlling the PoE power support of ONVIF S-conformant 3rd-party cameras. This provides flexibility in mixed camera environments besides the recommended usage with MOBOTIX MOVE IP camera series for full feature support. The MOBOTIX IoT camera range is fully integrated via ONVIF S.

- 2MP Full HD up to 4K IP camera support
- Integrated PoE switch with 8 ports for Plug & Play MOVE camera integration
- Can handle additional 4 Plug & Play MOVE cameras via external switch
- Support of MOBOTIX IoT cameras and 3rd-party cameras via ONVIF S protocol
- H.264/H.265 recording and playback
- Full HD local dual display/monitor output (HDMI/DisplayPort)
- iSCSI external NAS storage support

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- Alarm I/O connectors (4 relay outputs, 4 signal inputs, 1 RS485 D+, 1 RS485 D– ports; MOVE NVR-8 devices with serial number RD20C00001 and higher)
- iOS & Android app support provides convenient mobile access to live and recorded video on the NVR
- Integrated browser support (Internet Explorer 10 or higher with ActiveX recommended for best performance)

Technical Specifications	Mx-S-NVR1A-8-POE
System	
Operating System	Embedded Linux
CPU	Intel Apollo Lake E3930
RAM	LPDDR4, 2 x 1 GB
Boot Drive	eMMC Flash, 16 GB
Graphics	Intel HD Graphics 500
DisplayPort Output	1920x1080@60Hz (Full HD)
HDMI Output	1920x1080@60Hz (Full HD)
Audio Input	MIC-in, 3.5 mm x1 earphone
Audio Output	Line-out, 3.5 mm x1 earphone
USB Ports	USB 2.0 x2 (front); USB 3.0 x2 (rear)
Recording / Playback	
IPCAM Throughput	Average: 80 Mbps; Peak: 120 Mbps
GPU Hardware Decoding	12 CH real-time display, up to 360 fps@D1 decoding
Compression Format	H.264 / H.265
Browser support	Internet Explorer 10 or higher with ActiveX recommended for best performance
Storage	
Build-in SATA Interface	3.5" SATA3 x2
Max. HDD storage support (internal & ext. iSCSI)	20 TB
Onboard Hardware Interfaces	
M.2 (M-Key)	Yes
Alarm I/O Connectors	4 relay outputs, 4 signal inputs, 1 RS485 D+, 1 RS485 D– ports (pin-out see Alarm I/O Connectors, p. 9)
	NOTE These connectors are available on MOVE NVR-8 devices with a serial number of RD20C00001 and higher.
Network	
WAN Uplink	RJ45 x1, 10/100/1000 Mbps

Technical Specifications	Mx-S-NVR1A-8-POE
LAN Uplink	RJ45 x1, 10/100/1000 Mbps
LAN ports with PoE	RJ45 x8, 10/100 Mbps
Total number of supported cameras	12 (8 on internal LAN ports with PoE, plus 4 using external PoE switch attached to LAN port)
PoE Level	IEEE 802.3 af/at x8
PoE & switch management	Linux SDK
Supported protocols	User Authentication, IEEE 802.1x, IPv4, TCP, UDP, DHCP, SMTP, RTP, RTSP, HTTP, NTP, DDNS, iSCSI
General	
Unit Dimensions (mm)	220 x 275 x 44
Unit Weight (kg)	1.4
Package Dimensions (mm)	426 x 379 x 110
Package Weight (kg)	4.2
Operating Temperature	0 to 40 °C/32 to 104 °F
Operating Relative Humidity	10 to 90 % non-condensing
System Power Supply	AC 100 to 240 V, 180 W, 56 V/3.2 A
PoE Budget per Port	30 W
Total PoE Budget	120 W

Power Consumption of MOBOTIX MOVE Cameras

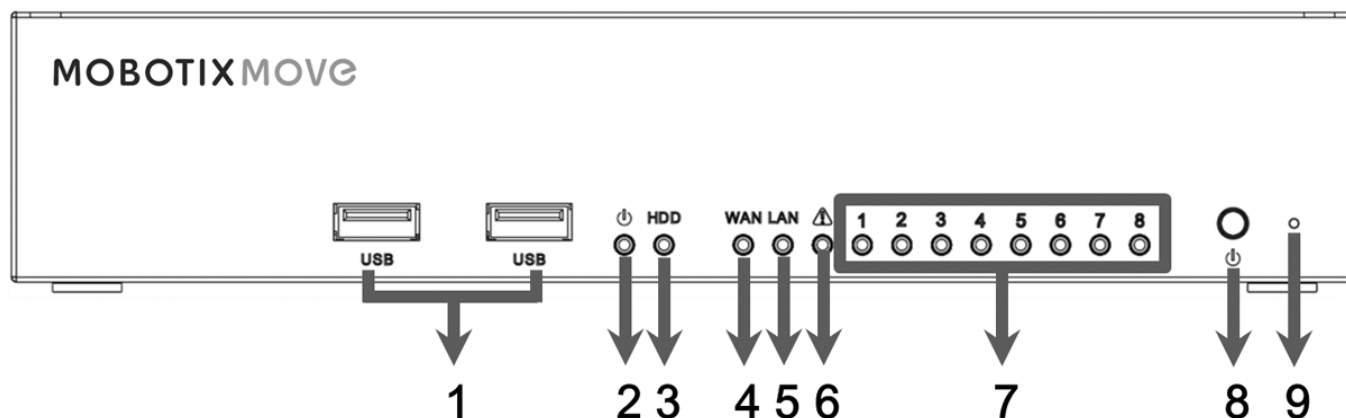| Model	Order Code	Max. Power Consumption
BulletCamera 2MP	Mx-BC1A-2-IR...	5.6 W
BulletCamera 4MP	Mx-BC1A-4-IR...	13.68 W
VandalBullet Analytics 2MP	Mx-VB2A-2-IR-VA	13 W
VandalBullet Analytics 5MP	Mx-VB1A-5-IR-VA	13 W
SpeedDome	Mx-SD1A-330	25.4 W
SpeedDome IR	Mx-SD1A-340-IR	44 W (external PoE injector required)
VandalDome 2MP	Mx-VD1A-2-IR...	12.25 W
VandalDome 4MP	Mx-VD1A-4-IR...	13.68 W
VandalDome Analytics 2MP	Mx-VD2A-2-IR-VA	13 W
VandalDome Analytics 5MP	Mx-VD1A-5-IR-VA	13 W

List of Tested Hard Disks

> **Note:**
> To ensure long-term reliable operation, make sure that you are using **server-grade hard disks** from the manufacturers' series listed below.
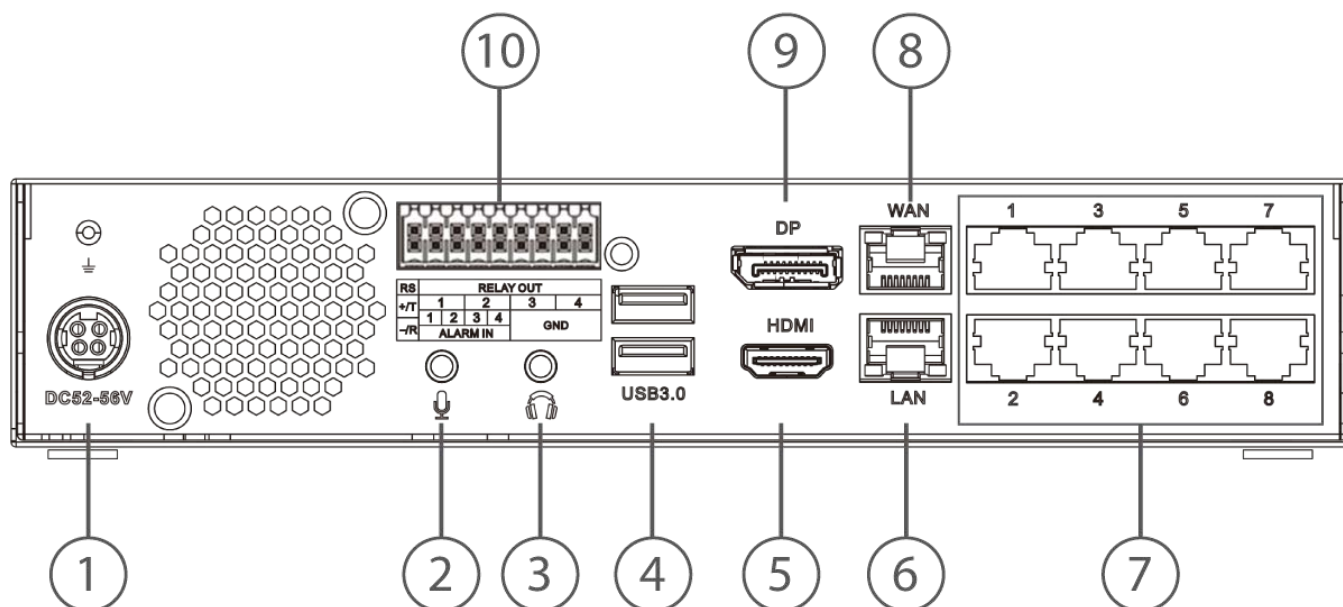
Brand	Series	Model Number	Firmware	Capacity
Seagate	Skyhawk	ST8000VX004	AV01	8 TB
		ST14000VX008		14 TB
Western Digital	Purple	WD82PURZ	82.00A82	8 TB
		WD140PURZ		14 TB

Front Panel

Item	Name	Description
1	USB 2.0 Port x2	The USB ports allow users to connect external USB devices, such as a USB mouse, a USB keyboard, a USB storage device, etc.
2	Power LED	This lights up when the power is on.
3	HDD LED	■ Flashing: The HDD is reading/writing data. ■ OFF: The HDD is not running.
4	WAN LED	■ Orange: Network speed is 1000 Mbps.
5	LAN LED	■ Green: Network speed is 10/100 Mbps.
6	P. Max	This lights up as warning when there are 10 watts left to reach the power budget of PoE switch.
7	Camera LED	Lights up when the camera is powered up and has good network connection. ■ Lights up in Green when the power source is from NVR. ■ Lights up in Orange when the camera is powered by external power supply.
8	Power Button	Press this button to power on the NVR system.
9	Reset Button	Press this button with a proper tool to restore the factory defaults of the NVR system.

Rear Panel

Item	Name	Description
1	Power Jack (DC 52 – 56 V)	Connect the power adapter and the power cord shipped with the NVR to power on the NVR system. Use other power supply may cause overloading.
2	Mic In	A 3.5 mm phone jack is provided to input/output audio.
3	Audio Out	
4	USB 3.0 Port x2	The USB ports allow users to connect external USB devices, such as a USB mouse, a USB keyboard, a USB storage device, etc.
5	HDMI Monitor	The video connectors are used to connect to a corresponding HDMI jack of the monitor.
6	LAN (RJ45) 10/100/1000 Mbps	This port can be used for connecting 4 additional IP cameras using an external PoE switch or a switch and cameras with external power supply. ■ Green LED: Flashes when data is being transmitted via network. ■ Orange LED: — Lights up in green when network speed is 10/100 Mbps. — Lights up in orange when network speed is 1000 Mbps.
7	PoE Switch	The PoE switch provides network connectivity and power supply for up to 8 IP cameras.

Item	Name	Description
8	WAN (RJ45) 10/100/1000 Mbps	This port is for connecting to the Internet (i.e., DSL router). ■ Green LED: Flashes when data is being transmitted via network. ■ Orange LED: — Lights up in green when network speed is 10/100 Mbps. — Lights up in orange when network speed is 1000 Mbps
9	DisplayPort	The video connector is used to connect to a corresponding DisplayPort output jack of the monitor.
10	Alarm I/O Connectors	These alarm I/O connectors allow connecting other devices to the NVR. For the pin-out, see Alarm I/O Connectors, p. 9 below. **NOTE** These connectors are available on MOVE NVR-8 devices with a serial number of RD20C00001 and higher.

Alarm I/O Connectors

NOTE

These connectors are available on MOVE NVR-8 devices with a serial number of RD20C00001 and higher.
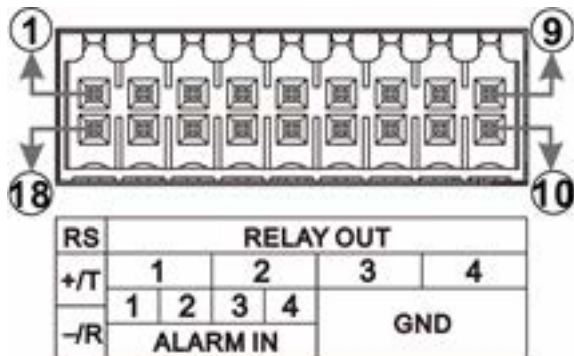

Fig. 1: Pin numbering scheme of MOVE NVR-8 alarm I/O connectors

Pin-Out of Alarm I/O Connectors

Pin	Connector
1	RS485 D+
2	Relay Out 1
3	

Pin	Connector
4	Relay Out 2
5	
6	Relay Out 3
7	
8	Relay Out 4
9	
10	GND 1
11	GND 2
12	GND 3
13	GND 4
14	Alarm Input 4
15	Alarm Input 3
16	Alarm Input 2
17	Alarm Input 1
18	RS485 D–

Imprint

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