RideSafe XT Series IP NVRs

8, 12 and 16-channel Mobile Recording and Management with Sleep Mode Functionality

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RideSafe XT Series IP NVRs

Overview

Increase passenger and operator safety on-board your urban transit buses with the **March Networks RideSafe XT IP NVR**, available in 8, 12, and 16-channel models. This all-IP recording and management solution lets you capture everything that's happening on the bus, inside and out, and features Sleep Mode Functionality for around the clock recording coverage. This plug-and-play recorder can operate as a standalone unit (programmable through embedded software), or be remotely managed and monitored daily (through March Networks Command™ for Transit VMS). It can integrate into your existing Intelligent Transportation Systems (ITS) and mobile routers, or it can operate independently. The recorder's compact size, rugged design (including solid state electronics, integrated power supply, and battery backup), and wide range of interfaces and communications options will meet all of the transit industry's standards.

Key Benefits

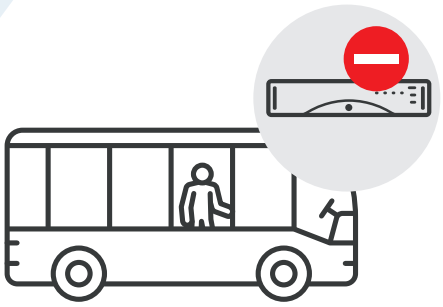
- **Powerful Video Management Software.** Easily manage your entire fleet as well as your fixed surveillance with March Networks Command for Transit. Features include health monitoring, remote live video access, data logging/search, fleet revision management, GPS mapping and more.
- **Sleep Mode Functionality.** A feature that will allow the XT units to switch to a low-power mode and record directly to the recorder's SD card, based on configurable rules like motion. This allows for around the clock recording coverage, even when buses are parked and powered down.
- **Real-time health monitoring.** Be alerted to camera, recorder and network issues within seconds.
- **Transit-tough.** Able to withstand extreme and demanding continual loads, these embedded Linux-based recorders adhere to J1455 specifications, and provide IP65 protection from dust and moisture. They tolerate severe shock and vibration and have an advanced thermal design to ensure reliability.
- **AI-enabled architecture.** A dedicated AI engine powers future analytics applications.
- **End-to-end encryption.** Enjoy the highest level of protection for customer data (from camera to recorder to enterprise management system to client software) with cameras supporting RTP/RTSP over HTTPs.
- **Vehicle metadata integration.** Use your Intelligent Transportation Systems (ITS) to gather operator-initiated tagged events and vehicle data such as GPS, speed and heading, and incorporate that data into the recorder. An integrated accelerometer tags video for hard brakes and other incidents; this allows for re-enactment, driver monitoring and investigations.
- **Powered by NVIDIA® System on a Chip (SoC).** SoC technology includes both the hardware and firmware, so it uses less power, has better performance, requires less space and is more reliable than multi-chip systems.
- **Automated video and data extraction.** Trigger automatic downloads, via Wi-Fi or 4G network, of critical video when the bus returns to the depot.

The RideSafe XT Series IP NVRs are NDAA-compliant and fully grant-fundable.

RideSafe XT Sleep Mode

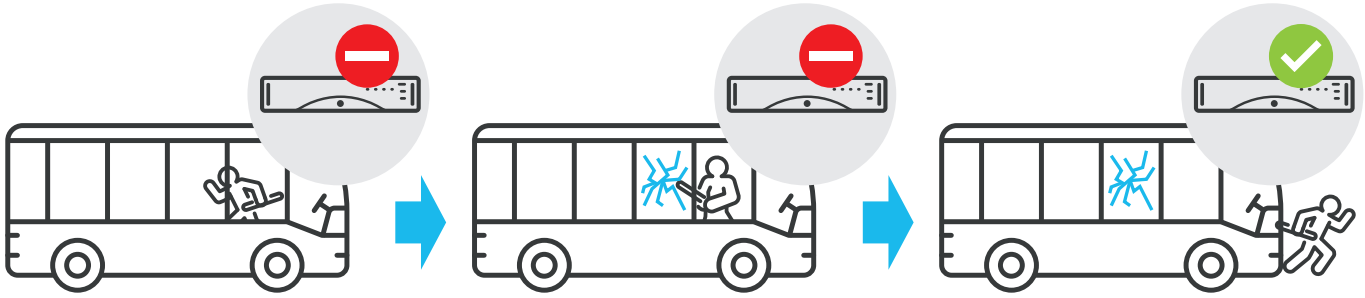
This feature will allow XT units to switch to low-power mode and record directly to the recorder's SD card, based on configurable rules like motion.

It allows for around-the-clock recording coverage, even when buses are parked and powered down.



Problem: Buses shut down at night with no ability to record motion of unusual activity (vandalism or vagrants)

Current solution: Recorders on buses are equipped with standard motion detection which is slow to initialize and record unusual activity



The March Networks Solution: Thanks to Sleep Mode, recorders can capture the entire motion event and record motion in real-time

Reduce security risk, keep passengers and operators safe, and gather conclusive evidence with these secure, AI-enabled devices, purpose-built for transportation.

RideSafe XT Series IP NVRs

VIDEO

Capacity	All models record at full frame rate (30FPS) at minimum 1080p resolution per camera, on all 16 cameras
XT08	8 IP channels, 8 POE ports, IP aggregate bit rate 300Mbps
XT12	12 IP channels, 12 POE ports, IP aggregate bit rate 300Mbps
XT16	16 IP channels, 16 POE ports, IP aggregate bit rate 300Mbps
IP Camera Support	
XT08	Up to 8 IP cameras
XT12	Up to 12 IP cameras
XT16	Up to 16 IP cameras
Functionality	Automatic, continuous recording on vehicle start; configurable post-vehicle shutdown recording; archival capabilities on alarm/event with programmable, tamper-proof video
Sleep Mode (Future Feature)	Provide support for scheduled low-power mode recording to on-board microSD card from 4 configured cameras while vehicle shutdown. Eliminating the need for Motion Sensors, NVR boot sequence as video can be set to record on camera motion.
IP Video Compression	Video Compression H.265, H.264, up to 4K resolution
Video Output	HDMI

AUDIO

Analog Audio Outputs	1, unbalanced, 600Ω, 1Vp-p
Compression	Analog Audio Codec Linear PCM (LPCM), uncompressed, 16 bit/128kbps
Max Dedicated Inputs	Up to 2, unbalanced, 10kΩ, 1Vp-p typical
Power for Microphone	2 power outputs for microphone (12 VDC/1.2 W)
Functionality	Flexible association with video, fully synchronized

NETWORK

Local Network	Network 1 GigE port for connection to corporate network Network 2 GigE port for connection to camera network Network 3 GigE port for connection to redundant network Security Industry standard TLS 1.2 with strong AES encryption, HTTPS encryption, strong hashing algorithms SHA256, continuous security vulnerability assessment Interface 10/100/1000Base-T Ethernet (3 x RJ-45)

ALARM INPUTS/OUTPUTS

Alarm Inputs	6 inputs, transient/surge protected, dry contact, current loop (Molex)
Status Tag Module Support	Supports 2 modules, tri-color output @ 12VDC
Relay Output	Contact rating max 2A/220VDC/60W
Functionality	Video tag insertion, change to recording action, increase of frame rate on event/alarm on a per-camera basis

PERIPHERAL DATA

USB	USB 3.0 - 1 on front, 2 on back
Ignition Switch	Ignition is used to control power to system, programmable shut down
Accelerometer	Integrated 3-axis, up to +/-16G
Functionality	Video/audio export, wireless network support, GPS data, inertia sensor data, system start-up/shutdown, configurable impact alarm

VIDEO STORAGE

SD Card	Removable uSD card for video extraction, or storage during sleep-mode
Internal Hard Drives	1 or 2 2.5" SSDs
Individual Drive Capacity	Up to 4TB
Total Storage Capacity	Up to 8TB
Drive Type	Latest 2.5" solid state 24/7 high-endurance. Contact March Networks for most current available drive offerings.
Caddy	Removable 2 drive capacity, lockable, J1455 shock and vibration drive encasement, automatic cessation on removal
Functionality	Mirroring (dual drives), protected area for tagged video, automated retention management automatic, pre- and post-wireless retrieval options.

PHYSICAL

Dimensions	
Recorder (HxWxD)	4.05 x 13.38 x 12.71 in / 10.3 x 34.0 x 32.3 cm
Caddy (HxWxD)	2.14 x 4.56 x 6.37 in / 5.45 x 11.6 x 16.2 cm
Mounting Options	Driver wall-mount, or shelf-mount with side brackets
Weight	15-17 lbs / 6.8 to 7.7 kg , depending on configuration

ENVIRONMENTAL

Operating Temperature	-13° to 131°F / -25° to 55°C
Storage Temperature	-40° to 158°F / -40° to 70°C
Temperature Control	Integrated heater, cold start management, monitored with software/LED indication, high temperature alarm
Protection enclosure	Compliant to IP65 for Ingress Protection (dust and water) with optional back plate, depending on model

POWER

Intelligent Automotive Power Supply	SAE J1455 compliant +9 to +36VDC input can support +7VDC (load dump transients, reverse battery, electrolyte boil-off)
Internal Battery	Brown-out protection, systematic shutdown
Failsafe	Hardware/software watchdog, delayed shutdown failsafe

REGULATORY COMPLIANCE

EMC	EN55032, BS EN55032, CISPR32, AS/NZS CISPR32, EN55035, BS EN55035, FCC Part 15, ICES-003, EN50130-4, BS EN50130-4,
Safety	EN62368-1, CSA/UL62368-1
Shock and Vibration	SAE J1455

GENERAL

Options Ordered Separately	Video Investigation Station; GPS receiver; external 802.11g/n wireless module; spare hard drive caddy; mobile cameras; vehicle cables and harnesses; impact sensors; status and tag buttons, spare battery pack, LCD monitor and HDMI cable

3-year warranty on all recorders:

- Options for Repair & Return or Advance Replacement
- March Networks incurs all shipping costs—both ways—for AR's
- All recorder components are covered, including HDDs

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