

# RideSafe RT Series IP Recorders

20-camera recording and management solution for rail applications



Increase passenger and operator safety on-board trains with the March Networks® **RideSafe™ RT IP Recorder**. This all-IP recording and management solution lets you capture everything that's happening on the train, inside and out. The 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 train controller systems 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 mobility industry's standards.

## HELPING YOU SAVE TIME AND MONEY

Our industry-first GURU app for iOS and Android devices allows you to...

- ✓ Check warranty status
- ✓ Initiate an express RMA
- ✓ Get in-field diagnostics support
- ✓ Conduct on-board asset tracking



## Key Benefits

- ▶ **Front panel LEDs for easy diagnostics.** LEDs convey information about the recorder in general, as well as operational, recording, and export status.
- ▶ **Embedded, Linux-based, and purpose-built.** Spend more time performing investigations and less time dealing with maintenance issues that can plague a PC-based recorder.
- ▶ **Real-time health monitoring.** Be alerted to camera, recorder and network issues within seconds.
- ▶ **Vehicle metadata integration.** Use your train controller systems 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.
- ▶ **Configurable recording policies.** Record video based on user-definable variables like schedule, motion, incident/event, etc.
- ▶ **Powerful Video Management Software.** With March Networks Command for Transit VMS, customers are equipped with the features and tools they'll need to easily manage their entire fleet as well as their fixed surveillance. Features include health monitoring, remote live video access, data logging/search, fleet revision management, GPS mapping and more.
- ▶ **Automated video and data extraction.** Trigger automatic downloads, via Wi-Fi or 4G network, of critical video when the train returns to the depot.

*Reduce your security risk, keep passengers and operators safe, and get conclusive evidence about incidents inside, outside, and around your trains.*

# RideSafe RT Series IP Recorder

## VIDEO

<b>Capacity</b>	All models support 20 IP channels and record at full frame rate (30FPS) at 1080p resolution across all channels simultaneously
<b>RT20EP</b>	Supports 20 IP channels (dual stream) and contains 8 PoE ports, 600FPS, IP aggregate bit rate 60Mbps
<b>RT20E</b>	Supports 20 IP channels (dual stream) and contains no PoE ports, 600FPS, IP aggregate bit rate 60Mbps
<b>Camera Licensing</b>	All channel licenses included out-of-box
<b>Video Compression</b>	H.264/MJPEG, support for 2MP (roughly 1080p) to 5MP
<b>Functionality</b>	Automatic, continuous recording on vehicle start; configurable post-vehicle shutdown recording; archival capabilities on alarm/event with programmable, tamper-proof video

## AUDIO

<b>Compression</b>	G.711, 8Bit/8kHz, 64Kbits/s, unidirectional
<b>Max Dedicated Inputs</b>	2 isolated differential inputs, 10kΩ, 1Vp-p typical
<b>Functionality</b>	Flexible association with video, fully synchronized

## NETWORK

<b>Local Network</b>	10/100/1000Base-T Ethernet (X-coded M12 connector)
<b>Camera Network</b>	10/100Base-T Ethernet, IEEE 802.3af POE class 2 (M12 D-coded connector)
<b>Security</b>	Password protection, IP address filtering, connection management, NTP time synchronization, DHCP enabled

## ALARM INPUTS/OUTPUTS

<b>Alarm Inputs</b>	2 isolated inputs
<b>Relay Output</b>	1 relay output; contact rating 2 Amp, max 220VDC isolation
<b>Functionality</b>	Video tag insertion, change to recording action, increase of frame rate on event/alarm on a per-camera basis

## PERIPHERAL DATA

<b>USB</b>	USB 2.0 (one port on front)
<b>Accelerometer</b>	Integrated 3-axis, up to +/-16G
<b>Functionality</b>	Video/audio export, wireless network support, GPS data, inertia sensor data, system start-up/shutdown, configurable impact alarm

## VIDEO STORAGE

<b>Internal Hard Drives</b>	1 or 2 2.5" SSDs
<b>Individual Drive Capacity</b>	Up to 2TB
<b>Total Storage Capacity</b>	Up to 3.840TB - 4.096TB
<b>Drive Type</b>	Latest 2.5" solid state 24/7 high-endurance drives. Contact March Networks for most current available drive offerings.
<b>Caddy</b>	Removable 2 drive capacity, lockable, EN50155 shock and vibration drive encasement, automatic cessation on removal
<b>Functionality</b>	Mirroring (dual drives), protected area for tagged video, automated retention management pre, post and automatic wireless retrieval options

## PHYSICAL

<b>Dimensions</b>	
<b>Recorder (HxWxD)</b>	3.4 x 10.36 x 10.42 in (8.73 x 26.3 x 26.47 cm)
<b>Caddy (WxD)</b>	1.9 x 6.5 in (4.8 x 16.5 cm)
<b>Mounting Options</b>	Driver wall-mount, or shelf-mount with side brackets
<b>Weight</b>	0 SSD: 6.71lbs (3.0kg) 1 SSD: 6.91lbs (3.1kg) 2 SSD: 7.11lbs (3.2kg)

## ENVIRONMENTAL

<b>Operating Temperature</b>	-13° to 131°F / -25° to 55°C
<b>Storage Temperature</b>	-40° to 158°F / -40° to 70°C
<b>Temperature Control</b>	Integrated heater, cold start management, monitored with software/LED indication, high temperature alarm

## POWER

<b>Power Supply</b>	24VDC, 37.5VDC, 72VDC, 110VDC, EN50155 compliant
<b>Internal Battery</b>	Available with internal battery for systematic shutdown
<b>Failsafe</b>	Delayed shutdown available with internal battery

## REGULATORY

<b>EMC</b>	EN61000-4-5, EN61000-6-4, EN55016-2-1, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-6, EN55011, EN50121-3-2, EN50155
<b>Environmental</b>	CE, EN50155, EN60068-2-1, EN60068-2-2, EN60068-2-30
<b>Shock and Vibration</b>	EN61373, EN50155
<b>Fire Safety</b>	EN45545

## GENERAL

<b>Options Ordered Separately</b>	Video Investigation Station; external 802.11g/n wireless module; spare drive caddy; mobile cameras; vehicle cables and harnesses; status and tag buttons, spare battery pack, LCD monitor and HDMI cable
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### 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

