



## Project Profile: RENFE

<b>Customer:</b>	RENFE
<b>Project Type:</b>	Refurbishment
<b>Operator:</b>	RENFE
<b>Franchisee:</b>	RENFE
<b>Train Owner:</b>	RENFE
<b>Train Mfg:</b>	Siemens AG/Alstom
<b>Train Class:</b>	Civia
<b>Number of Trains:</b>	9
<b>Number of Cars:</b>	4/5



## System Overview

The CCTV digital recorder module provides surveillance recording from up to 4 or 8 camera inputs. This recording function operates automatically and continuously without any intervention from the driver. At all times digital images frames for each camera are recorded on the digital video recorder's removable Hard Disk Drive.

TransitCam TC-100 can operate in multi car train applications and provide video to driver displays and across couplers. Ethernet or bi-directional Analogue video is available for train transmission of video to Drivers and Guards Display units.

There is one TransitCam TC-100 unit installed in each 2-car unit. It is housed in a single compact enclosure equivalent to a 4U form factor.



511 Davis Drive, Ste. 300  
Morrisville, NC 27560  
919.472.5000 [www.integrian.com](http://www.integrian.com)



## Project Features

- High quality, full color, digital hardware MPEG-4 image compression
- Maximum capture rate of 200 frames per second (100 frames per second global maximum capture rate over each 4 input)
- Resolution options of CIF, 2CIF and 4CIF
- Removable 80GB or 120GB media storage unit provides 24 to 200 hours of continuous data storage in a typical passenger rail application
- Storage media operates in continuous overwrite mode with older files being overwritten by current video records
- Local LCD text status display for diagnostics and service
- Configurable car number for incorporation in data files and evidence audit
- Internal unit serial number linked into all video records for tractability and evidence audit
- 4 or 8 Video inputs available
- GPS input as standard. Location information is recorded against each second of image captured
- Time and date referenced from GPS data. No time drift, user maintenance or setting requirements for on-train clock calendars
- Internal battery-backed clock calendar maintains time and date while power is off and where GPS signal is not available. Clock calendar is automatically synchronized when GPS signal is next available
- Internal clock calendar allows manual clock adjustments if GPS is not fitted
- Half width 19 inch, 4U rack mount recorder unit
- Integrated, greater than 480 line color camera units, electrically isolated, with incorporated full housing, connector, lens and mounting bracket
- Single coax cable to each camera carries both signal and power
- Isolated RS-232 diagnostics and service port, proves safe in rail applications
- Isolated Ethernet video and network access
- Local video output can be switched to any camera for camera testing and diagnostics



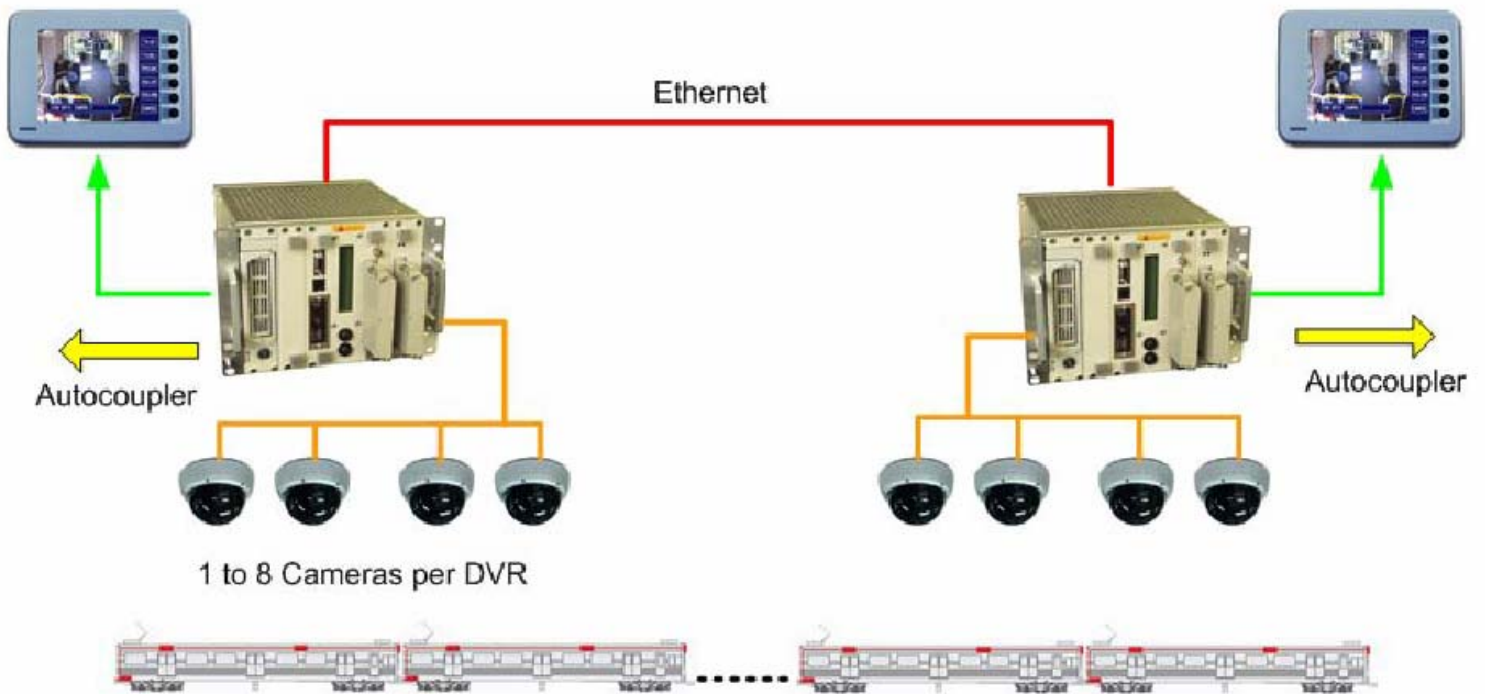
TransitCam TC-100



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## System Architecture



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