



## Project Profile: Irish Rail

<b>Customer:</b>	Siemens AG
<b>Project Type:</b>	Refurbishment
<b>Operator:</b>	Irish Rail
<b>Franchisee:</b>	DART
<b>Train Owner:</b>	Irish Rail
<b>Train Mfg:</b>	Siemens AG
<b>Train Class:</b>	Class 8100
<b>Number of Trains:</b>	38
<b>Number of Cars:</b>	2



### System Overview

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

One 8-input TransitCam TC-100 is installed in each 2-car pair. Two cameras are provided in the interior of each saloon with one forwards view camera per driving car. A single driver display is installed in each driver cab to allow for the viewing of live surveillance images by drivers.

To minimize cabling while maintaining system functionality, an analogue composite video/serial RS-485 bus system is used for train-line surveillance communications.

All camera cabling is performed using a single halogen-free co-ax cable run. This single cable for each camera supplies both power to the camera and video from the camera to the TransitCam TC-100

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



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## Project Features

- High quality, full color, digital hardware MPEG-4 image compression
- Capture rate of 12.5 frames per second per saloon camera
- Capture rate of 12.5 frames per second per forward view camera
- Resolution of 2CIF
- 120 hours of data storage
- Storage media operates in overwrite mode with older files being overwritten by current video records
- Alarm recording: 10 min prior – 10 min post, first 10 alarms are marked and protected from overwrite; manual intervention required to transfer and clear first 10 alarms for overwrite
- Isolated RS-232 diagnostics and service port (PSU)
- Local LCD text status display for diagnostics and service
- 8 Video inputs, 6 camera configuration
- Time and date received from PIS system over RS485. No time drift, no 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 PIS signal is not available. Clock calendar is automatically synchronized when PIS signal is next available
- Integrated, 480 line color camera units, electrically isolated, incorporate housing, connector, lens and mounting spacer
- Driver Display Unit with intuitive event driven user interface minimizing key press selections
- Single coax cable to each camera carries both signal and power
- Full width 19 inch, 4U rack mount recorder unit



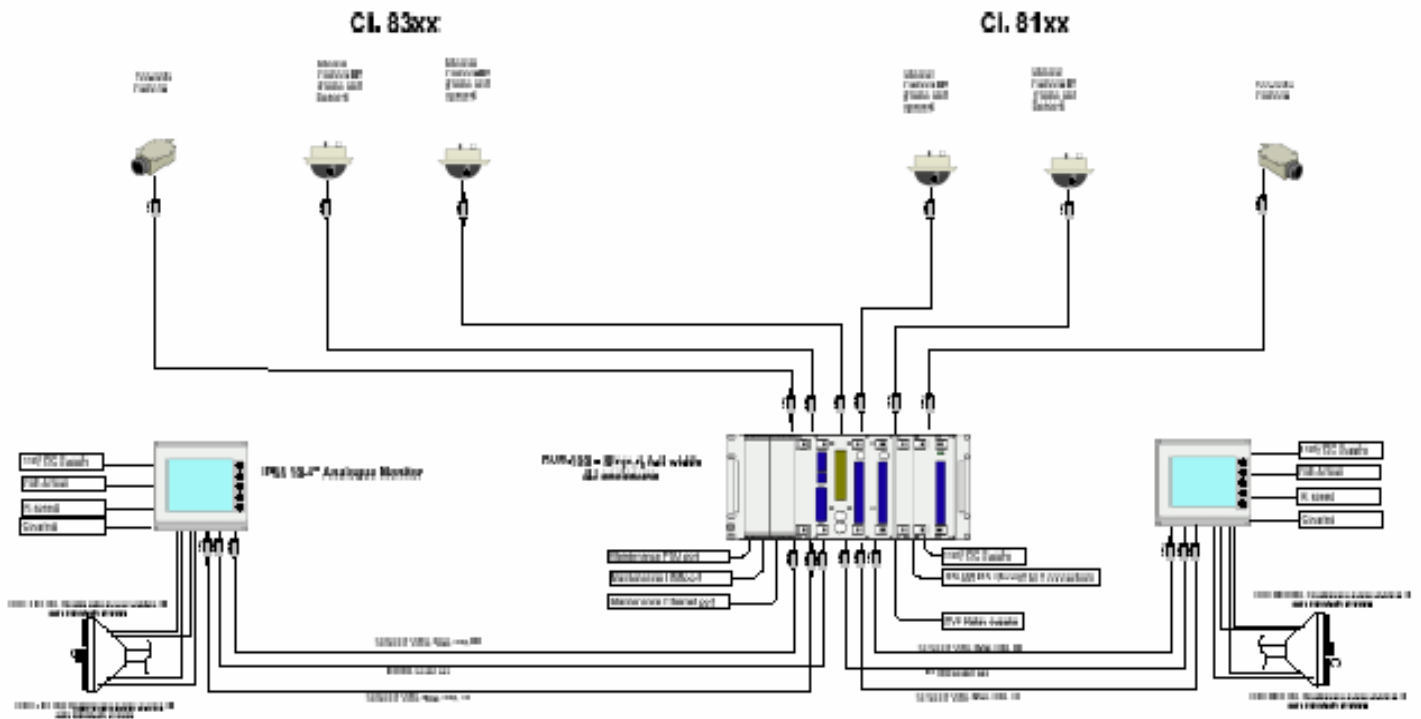
TransitCam TC-100



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## System Architecture



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