



Project Profile: Victoria Line Upgrade (VLU)

Customer:	<i>Bombardier Transport UK</i>
Project Type:	<i>New Build</i>
Operator:	<i>Metronet Rail BCV</i>
Train Owner:	<i>Transport for London, LUL</i>
Train Mfg:	<i>Bombardier</i>
Train Class:	<i>VLU</i>
Number of Trains:	<i>47</i>
Number of Cars:	<i>8</i>



System Overview

Each CCTV digital recorder module provides surveillance recording for 4 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's (DVR) removable 80GB Hard Disk Drive, providing in excess of 72hrs of continuous footage. Recording of the PEA (Passenger Emergency Alarm) audio is provided when the operator acknowledges an alarm, this is time-synchronized and recorded on all images to provide the ability to view different camera views of an incident while listening to the recorded audio.

There is one TransitCam TC-100 unit installed in each 2-car unit. It is housed in a single compact enclosure, sealed to IP65 standard and equivalent to a 4U form factor, Half Width.

There are two 12.1" color monitors in each operator's cab which provide viewing of the camera images, and also One Person Operation (OPO) video from either side of the operator's cab. The CCTV images can be sequenced automatically or manually and there is an automatic Alarm display. The OPO display takes precedence with the option to switch to CCTV when the train is traveling below 3mph. Each monitor has automatic backlight adjustment that compensates for the ambient backlight and the option for the operator to adjust the image luminance to suit individual preferences.



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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 camera
- Resolution of 2CIF
- In excess of 72 hours of data storage
- Isolated RS-232 diagnostics and service port
- Storage media operates in 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
- 4 Video input configuration
- Time and date received from TCMS system. 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 TCMS signal is not available. Clock calendar is automatically synchronized when TCMS signal is next available
- Integrated, 480 line color camera units, electrically isolated, incorporate IP65 housing, connector, lens and mounting spacer
- Single coax cable to each camera carries both signal and power
- Local video output can be switched to any camera for camera testing and diagnostics
- Half width, IP65, 4U recorder unit



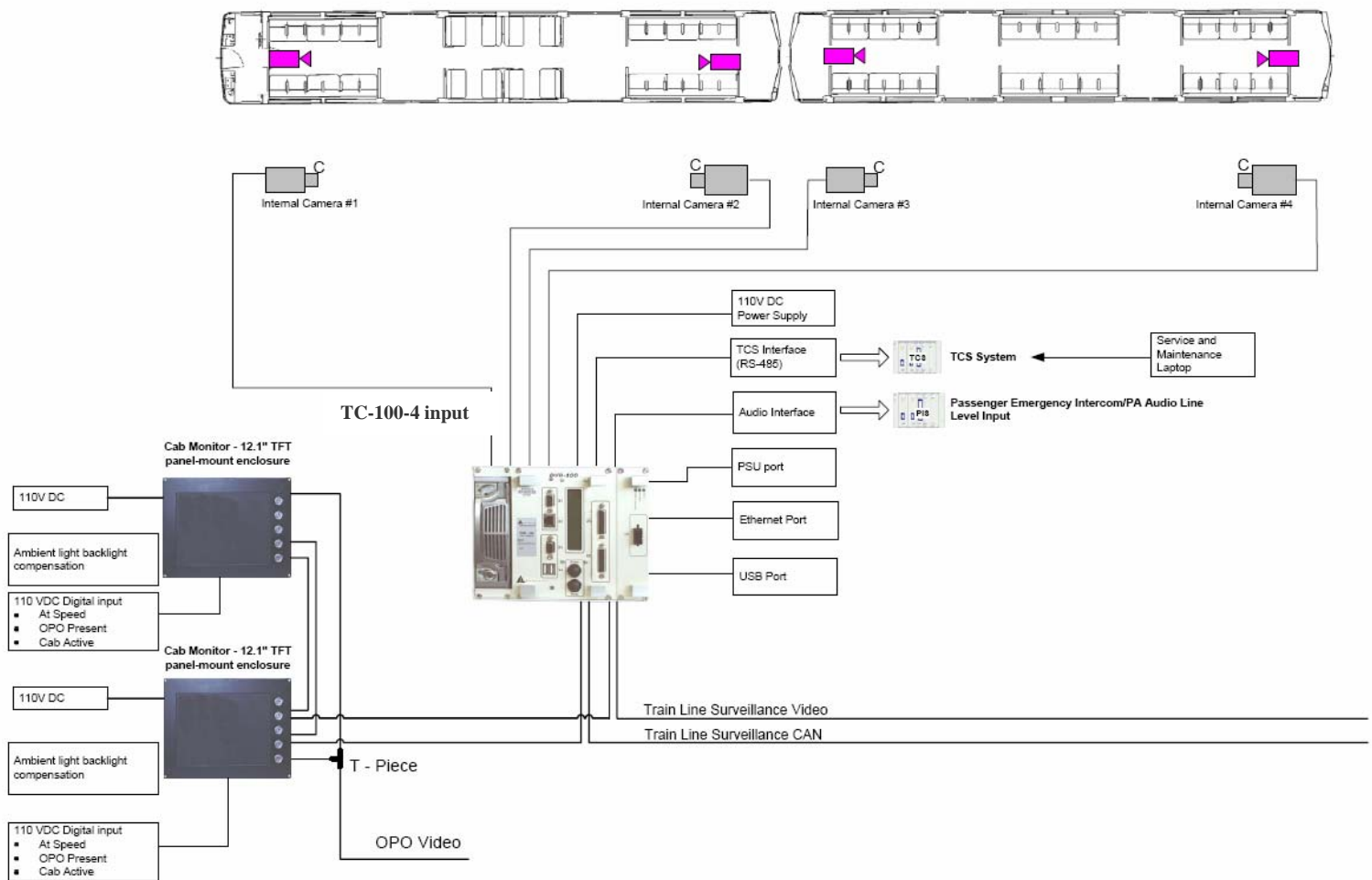
TransitCam TC-100 and Components



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System Architecture



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