

PANDAS OCS Monitoring Service



The Over Head Monitoring System (OHMS) monitors large disturbances between the pantograph and Overhead Catenary System (OCS) interface during routine passenger service and provide alerts to allow your team to investigate occurrences, providing a proactive maintenance plan and optimizing your OCS uptime.

The OHMS has been developed by Transmission Dynamics UK and has been in revenue service for over 2 years.

OHMS consists of the following three components:

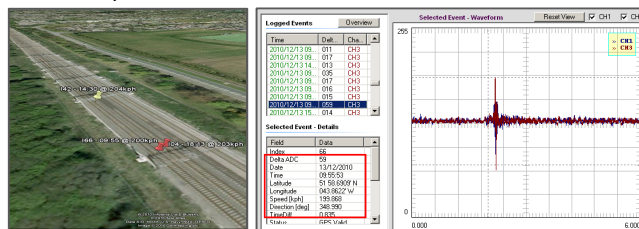
Accelerometers: Two Accelerometers are mounted on either side of the pantograph head to continuously monitor the changes in acceleration/impacts on the head.

DPM: The Acquisition and Data Processing Module (DPM) is mounted on the pantograph frame. It continuously monitors the signals from the head mounted accelerometers at 330Hz. Connection is wireless via class 1 Bluetooth module to the car mounted receiver module. The unit is powered by batteries and extended by PV solar cells and will last approximately 6 months. Alarm events are downloaded to the receiver unit immediately following any major impact event.

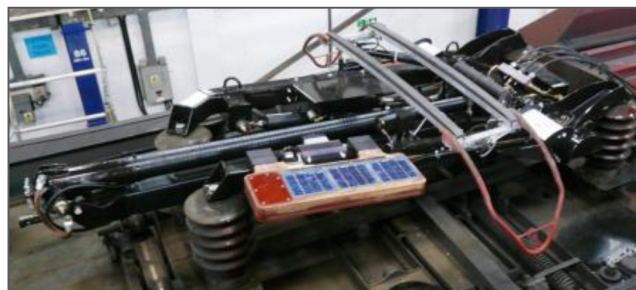
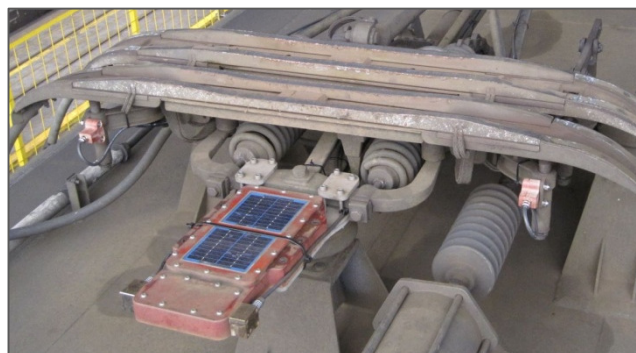
RSRU: The car mounted Receiver and Signal Relay Unit (RSRU) receives the signal from the DPM wirelessly via Blue tooth and can be mounted as far as 100m from the pantograph. The RSRU can be configured to transmit a signal to the driver or via GSM will alert maintenance staff immediately via text or email. Daily activity can be downloaded via SD card to and allow for long term trending.



- Pantograph mounted module measures impact severity between pantograph head and OCS
- On Board GPS for precise event location, speed, time, and direction stamp
- Operates in routine passenger service throughout the day providing real-time, immediate event tracking and updates



- Instantaneous notification with full report (email, SMS)
- Event location accuracy: +/- 20m
- User defined "low alarm" and "high alarm levels"
- Remotely re-programmable via mobile network
- EMI certified for operation in demanding Rail Environment
- Service Proven reliability: Routine operation for over 2 years
- Easily configurable to mount on any pantograph



**Winner of the 2011 UK RBA
Engineering Excellence Award**



Transmission Dynamics



Class 91 Locomotive, East coast line, England

