



AUSTRALIAN RAIL TRACK CORPORATION

Certificate No.: **S-07-1327-WE139**

NEW EQUIPMENT & SYSTEM APPROVAL CERTIFICATE

Approval date: 11th March 2014

Approved by: Operations Safety & Environment Review Group

Report no.: TAS-07-1327-WE139

Report date: 30th September 2013

This certificate is issued to:

Supplier: **Madison Technologies Pty Ltd**

In respect of:

Manufacturer: **Westermo Teleindustri**
SE-640 40 Stora Sundby
Sweden

Product description: **TD36 (485) LV MODEM**

Item identification: **Modem**

Application: Typically used for communication equipment.

Relevant Standards: ARTC Standards:
SPS 02 – 'Environmental Conditions';
SPS 05 – 'Electrical & Electronic Components (Ratings & Construction Requirements)';
SCP 23 – Design of Microlok II Interlockings

Conditions of Approval:

1. For use in accordance with ARTC standards SDS25 and standard typical configurations developed and approved specifically for the Microlok II and Westermo TD36 LV Modem.
2. Usage for situations with limited communications links available. Where network connections are available other type approved modems should be used.
3. Where the modem is to be used as part of any other vital communications design, the safety critical aspects of the data transmission shall be managed by the vital communication devices and not the modems themselves. For use only on data communications links that meet category 3 of EN 50159:2010. The system is not approved for use with category 4 or 5 communications networks including radio data links.
4. Although the TD36 (485) LV can operate from a supply of 22-264Vac or 14 - 300Vdc it is recommended a 24Vdc supply is used. This shall be battery back up power supply for the CBI.
5. Ensure a minimum space of 25mm top and bottom and 10mm left and right of the equipment is provided for ventilation/heat dissipation. The mounting of the unit shall ensure that there is correct earthing and is away from electrical noise on the equipment rack.
6. Only equipment detailed in the referenced list of the Type Approval Certificate may be used for the data link with Microlok Computer Based Interlockings for vital and non-vital links.
7. The configuration settings of the WestermoTD36 (485) LV Modem shall be documented in a Work Instruction ESW-05-03 as part of the first installation. Further that these are used for all installations and Plug-n-Play configuration set up is prohibited.
8. The processes for the use of the maintenance terminal to the modem shall be detailed and include appropriate security measures.

A general condition of approval is that the supplier remains accredited to ISO 9001 specifically for these products and ARTC is advised on a 2 yearly basis that accreditation is current. ARTC reserves the right to conduct its own audit of the

manufacture and supply of these components to AS 19011.

Any subsequent change to the design, materials or manufacturing process is not covered by this approval. The manufacturer should notify ARTC of any modification or changes in order to obtain a valid certificate.

Note/Comments: None
Issue date: 13th March 2014
Page: 1 of 2
Issued by:

Expiry date: N/A


John Furness
ARTC Manager Standards

NEW EQUIPMENT & SYSTEM APPROVAL - APPROVED ITEM LIST

Reference no.: TAS-07-1327-WE139
Date: 30th September 2013
Product description: WESTERMO TD36 (485) LV MODEM
Certificate no.: S-07-1327-WE139

The following lists the individual items (by catalogue number) are approved for use on ARTC infrastructure under the above referenced New Equipment & System Approval Certificate number, subject to any conditions shown on that Certificate and the Conditions of Use shown against individual items.

Catalogue/Part No.	Item Type	Description	Product name	Conditions of Use
3618-0010	Modem	Industrial backup PSTN and Leased Line Modem	Westermo TD36 (485) LV	Vital communications