

Product Type Approval Certificate

Full

This certificate is issued to:


Supplier name and address:	Downer Rail 39 Delhi Road North Ryde NSW 2113
-----------------------------------	---

In respect of:

Manufacturer:	Downer Rail
Place of manufacture:	Australia
Product description:	<p>Specific application of the type approved Hitachi Compact ETCS (C-ETCS) onboard subsystem [PTA SC 011 2018R3] using the modified generic product baseline AU21_ETCS_BL04 comprised of system version AU21011, hardware version FH101, software version AT012 with the EKE Electronics DMI integrated into eTIS, interfacing to the eTIS Event Recorder and using the Knorr-Bremse speed sensors fitted to the Waratah train set type.</p> <p>The specific application is defined in:</p> <ul style="list-style-type: none"> • CER03111 Rev H CN01 ATP SPECIFIC APPLICATION SAFETY CASE (SASC) • ISA Report EUFI29-22003012-I1 • Railway System Certificate EUFI29-22003012-C2 • S.P1807.40.6 Safety Assessment Report • S.P1807.80.9 SA Certificate (Configuration CER03178 Rev G; SASC CER03111 Rev. H) • CER03178 Rev G CN01 CN13 ATP Onboard System Configuration Description <p>The Hitachi Compact ETCS onboard subsystem is configured by Hitachi.</p> <p>Items outside the scope of this approval are: separate event recorders (TRU/JRU) modified for ETCS; radio communications equipment and Driver Machine Interface configuration for Human Factors.</p>

Manufacturer:	Downer Rail
Use approved for:	<p>ETCS Level 1 Automatic Train Protection onboard subsystem for the A-Set (Waratah) and B-Set (Sydney Growth Trains) train set types.</p> <p>Usage in accordance with TfNSW standards, manuals and procedures as well as supplier documents and constraints.</p> <p>Conclusions about the suitability for use under any other circumstances are not made. Reliance on this approval by any other organisation is done so entirely at that organisation's own risk.</p>
Conditions of approval:	<p>This type approval is based on compliance with the following conditions:</p> <ol style="list-style-type: none"> 1. This type approval is dependent on the Hitachi C-ETCS ATP onboard subsystem product generic application type approval PTA SC 011 2018R3 with the following notes: <ol style="list-style-type: none"> a) The Driver Machine Interface product (EKE DMI v2.4) has been evaluated and included in this specific type approval for train set types. 2. The TAO is to have authorisation for the life cycle activity for the engineering service supported by specific competency and processes compliant with the product safety case. 3. Type Approval PTA SC016 2018R3 is superseded by this approval. 4. Temporary concession CN 00494-2022_ts-00003.3-1.1 - DMI-2.4 is now expired. 5. The manufacturer and maintenance TAO are to regularly monitor and liaise regarding cyber security issues. Taking action as required to maintain the overall safety and reliability of the installed infrastructure. 6. The supplier TAO must advise TfNSW AMB of any changes made to the product or system which may alter its identification, performance characteristics, form, fit, function, security or processes required for correct usage so that this approval can be reviewed and revised or reconfirmed.
Limitations:	N/A

Evaluating rail transport operator

	Andrew Gardner
Position:	Director, Signals and Control Systems Engineering, Asset Management Branch, Transport for NSW
Signature:	
Date:	19/12/2022

Product approval pack reference number: qT813167