

Product Type Approval Certificate

Full

This certificate is issued to:


Supplier name and address:	Hitachi Australia Pty Ltd 123 Epping Road North Ryde NSW 2113
-----------------------------------	---

In respect of:

Manufacturer:	Hitachi Ltd
Place of manufacture:	Japan
Product description:	<p>Compact ETCS generic product (C-ETCS) onboard subsystem tailored to meet TfNSW standards identified as baseline AU21_ETCS_BL04 comprised of system version AU21011, hardware version FH101, software version AT012. This implements ETCS baseline 3 maintenance release 1.</p> <p>The generic application is defined in:</p> <ul style="list-style-type: none"> • Hitachi Safety Case Addendum (AU21-D01-0015-001). • Hitachi Software release notes (HAUL-ET1-TEC-RNT-GENERIC-001-SOFTWARE RELEASE NOTES AU21011 REV A). • Hitachi System Version List (4D855254_SGT & Waratah System Version List). <p>Items outside the scope of this approval are: specific train type application; separate event recorders (TRU/JRU) modified for ETCS; radio communications equipment; Driver Machine Interface configuration for Human Factors.</p>

Manufacturer:	Hitachi Ltd
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. 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. 2. 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. 3. Type Approval PTA SC011 2018R2 is superseded by this approval. 4. The Driver Machine Interface product will be evaluated as part of the specific type approval for a train set type. 5. The supplier 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.

Evaluating rail transport operator

Name:	Andrew Gardner
Position:	Director, Signals and Control Systems Engineering, Asset Management Branch, Transport for NSW
Signature:	
Date:	01/11/2022

Product approval pack reference number: qT813134