

Product Type Approval Certificate

Restricted

This certificate is issued to:

Supplier name and address:	Hitachi Rail STS 11 Viola Place, Eagle Farm, QLD 4009
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In respect of:

Manufacturer:	Hitachi Rail STS
Place of manufacture:	Italy
Product description:	<p>WSP 2G (2nd generation) and FDC 3G (3rd generation) CBI systems, consisting of the hardware and software items listed on the type approval certificate schedules.</p> <p>Cables, connectors and associated hardware items listed in the WSP 2G Operation and Maintenance Manual and FDC 3G Installation and Maintenance Manual form part of this type approval, as these are necessary for the complete interlocking and wayside installation and operation of the WSP 2G and FDC 3G.</p> <p>Note: Type approval does not control application tools for data preparation and validation (WAVE, FAST) used by the TAO in providing engineering services for the product. This is in accordance with T HR SC 01000 SP v1.0 section 29 (section 30 in v2.0).</p>
Use approved for:	<p>Restricted use as part of the Mount Victoria area remodelling only.</p> <p>Use as a computer-based railway signalling interlocking system on the heavy rail network, in accordance with TfNSW standards and the manufacturer's documentation and application constraints (safety and non-safety related).</p>

Manufacturer:	Hitachi Rail STS
Conditions of approval:	<ol style="list-style-type: none"> 1. Use of the WSP 2G and FDC 3G on the TfNSW heavy rail signalling system is restricted to the Mt Victoria Area Remodelling project only until a satisfactory closure of all outstanding matters as agreed by Sydney Trains and Hitachi and completion of operational integration activities. 2. The Technically Authorised Organisation (TAO) shall have authorisation for the life cycle activity for the engineering services supported by specific competency and processes compliant with the generic product safety case. This includes implementation of controls listed in the type approval certificate schedule, and not covered by the TA conditions and limitations. 3. The manufacturer and maintenance TAO shall regularly monitor and liaise regarding cyber security issues, taking action as required to maintain the overall safety and reliability of the installed infrastructure. 4. For all projects implementing the WSP 2G interlocking, a hazard analysis shall be performed to identify and mitigate any cyber security hazards related to the product's operational integration on TFNSW heavy rail environment and for whole of life cycle. The analysis shall cover items v to xiii in section 21.2 of T HR SC 01000 SP ver. 2.0 5. The manufacturer shall 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 type approval can be reviewed and revised or reconfirmed. 6. Connection of any wireless devices such as smart phones and tablets to the Wision2G monitoring system is prohibited.

Manufacturer:	Hitachi Rail STS
Limitations:	<ol style="list-style-type: none"> 1. FDC 3G modules shall be located in separate signalling locations from SSI trackside functional modules (TFM) signal modules. 2. Integration with the Frauscher axle counter system (FAdC) for train detection shall use category 1 or 2 transmission system, in accordance with IEC 62280. 3. Reliance on the disabling of FDC 3G modules GREI, OUTV and INVI for maintenance purposes using WSP 2G diagnostic commands is not permitted. 4. The ethernet communication backbone (normal and standby) for the vital signalling communications shall be fibre optic cables only. 5. Installation of equipment in confined spaces is not permitted. 6. Multicoil / twin relays shall not be used with the FDC 3G 7. WSP 2G and FDC 3G shall not be used in AC traction areas. 8. Blanking plugs shall be fitted and secured to the DB9 ports of the cPCI-3510L Vital CPU modules. 9. FDC 3G subracks installed in location and equipment cases shall be positioned more than 3m from the track. The datum point for the measurement shall be from the toe of the sleeper to the nearest edge of the location case. 10. Start-up delay for the event recorder (ART) shall be configured to less than or equal to the start-up delay for the equipment that it is recording information for. 11. Warning labels prohibiting the use of magnets with in 100mm of the interlocking modules shall be permanently attached to the cabinets and clearly visible. 12. Communication cables and sockets shall be labelled appropriately and detailed in circuit books to mitigate risk of incorrect terminations. 13. This type approval does not include application tools for data preparation and validation (WAVE, FAST) used by the TAO in providing engineering services for this product, which is in accordance with T HR SC 01000 SP v2.0 section 30. The off-line support tools are outside the scope of type approval, and any assurance required is provided by the TAO as part of the engineering services.

Evaluating rail transport operator

Name:	Andrew Gardner
Position:	Director, Signals and Control Systems Engineering, Asset Management Branch, Transport for NSW
Signature:	
Date:	03/06/2022

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