

Product Type Approval Certificate

Full Approval

This certificate is issued to:

Supplier name and address:	Austdac Pty Ltd 1/42 Carrington Rd, Castle Hill, NSW, 2154
	Phoenix Contact Australia 7/2-8 South St, Rydalmere, NSW, 2116

In respect of:

Manufacturer:	Carlo Gavazzi Phoenix Contact		
Place of manufacture:	Italy Germany		
Product description:	Dupline Serial Interface Solution as components listed in Annexure 1		
Use approved for:	 In Dupline telemetry systems as a replacement option of the obsolete Dupline Private Line Modems in a point to point or multidrop arrangement. 		
	 Usage in accordance with TfNSW standards, RIM's operational standards and the manufacturer's recommendations. 		

Conditions of approval:

This certificate is based on compliance with the following conditions:

- 1. The O&M asset steward is to regularly monitor cyber security issues. Taking action as required to maintain the overall safety and reliability of the installed infrastructure.
- Conclusion 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.
- The supplier or manufacturer must advise TfNSW AMB of any changes made to the product or system which may alter its identification, performance characteristics, form, fit or processes required for correct usage so that this approval can be revised or reviewed.
- 4. This type approval is based on RP SCS23-0201 "Dupline Serial Interface Solution Type Approval Report" version 1.0 and supporting documents.
- 5. This type approval is a generic product type approval. Each site specific application requires a site specific system assurance. The assurance should be based on the site specific requirements, hazards and conditions. System assurance is still required even if the requirements, hazards and testing of the generic type approval assessment was based on a specific project
- 6. The following design constraints are applicable:
 - a) For heavily polluted environments, the SPEC 8112 is to have an additional enclosure.
 - b) When designing for a multidrop arrangement, the pacing value for the control system is to be calculated and assured using the acceptable engineering practices.
 - c) Dipswitch Configuration settings of the SPEC 8112 to be recorded in the signals circuit book.
 - d) Red and Black wiring is to be used between the 5V PSU and the SPEC 8112 to reduce the likelihood of accidental reverse polarity.

Evaluating rail transport operator

Name:	Andrew Gardner			
Position:	Director Signals & Control Systems Engineering, Asset Management Branch, Safety Environment & Regulations, Transport for NSW			
Signature:	Andrew Gardner Gardner Digitally signed by Andrew Gardner Date: 2023.03.22 15:15:43 +11'00'			
Date:				

Product approval pack reference number: fA13983417

Annexure 1 - Schedule of Associated Items

Item	Manufacture	Part Number	Description
Dupline Modbus interface module Type SPEC 8112	Carlos Gavazzi Group	SPEC 8112	Interface device to convert Dupline Bus into RS485 Modbus
5V DC PSU UNO-PS/1AC/5DC/25W	Phoenix contact	2904374	Power supply for SPEC8112.
DB25F Interface module VIP-3/PT/D25SUB/F	Phoenix Contact	2903782	Terminal block to provide mounting wire termination to the SPEC 8112