AUSTRALIAN RAIL TRACK CORPORATION

Certificate No.: **TAS-02-1306-IR 136**

NEW EQUIPMENT & SYSTEM APPROVAL CERTIFICATE

Approval date:	25 September 2013
Approved by:	Review Panel
Report no.:	TAS 02-1306-IR136
Report date:	19th September 2013

This certificate is issued to:

Supplier: SIEMENS

In respect of:

Manufacturer: SIEMENS
380 Docklands Drive
Docklands 3008
Victoria, Australia

Product description: **SIEMENS 4210215901 – 4210215908, 421025910 – 421025917 and 3210215101-3210215104 SUBSIDIARY LED RETRO FIT KITS**

Item identification: See approved item list for certificate TAS-02-1306-IR-136

Application: LED subsidiary light signals

Relevant Standards: SPS11 Light Signals
SPS02 Environmental Conditions
ESC-04-01 Signal Sighting and Position
SPS05 Electrical & Electronic Components (Ratings & Construction Requirements)

Conditions of Approval:

1. For use in accordance with ARTC signals construction standards and standard typical circuits only.
2. Medium and Intermediate range retrofit kits are not suitable for use in tunnels
3. TR3 LED light units shall be scheduled for routine replacement after 10 years in service.
4. Maintenance schedules for sites with these units installed shall include requirements to note the number of failed LEDs in each aspect and arrange for replacement when 60% failed.
5. Only components from the list in **Approved Item List** may be utilised.
6. All subsidiary lights signal heads at a site (included in the same circuit book), which use LED signal light units, shall use units from one supplier's range.
7. Selection of Short & Medium Range units to be in accordance with requirements detailed in ESC-04-01.

A general condition of approval is that the supplier remains accredited to ISO 9001 specifically for these products and ARTC is advised on a 12 monthly 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:	Nil
Issue date:	26 September 2013
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Issued by:	

Expiry date: N/A

John Furness - ARTC Manager Standards

NEW EQUIPMENT & SYSTEM APPROVAL - APPROVED ITEM LIST

Reference no.:   TAS 02-1306-IR136

Date: 05th June 2013

Product description: **INVENSYS RAIL 4210215901 – 4210215908 & 421025910 – 421025917 SUBSIDIARY LED RETRO FIT KITS.**

Certificate no.:   **TAS-02-1306-IR 136**

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 No.	Type	Type Description	Conditions of Use
Short Range Wide Beam Subsidiary			Sighting distance ≥ 0.2km.
4210215910	140mm	Green - LED lamp unit.	12Vdc
4210215916	140mm	Yellow - LED lamp unit.	
4210215912	140mm	Red - LED lamp unit.	
4210215914	140mm	White - LED lamp unit.	
Short Range Wide Beam Subsidiary			Sighting distance ≥ 0.2km.
4210215901	140mm	Green - LED lamp unit.	110Vac
4210215907	140mm	Yellow - LED lamp unit.	
4210215903	140mm	Red - LED lamp unit.	
4210215905	140mm	White - LED lamp unit.	
Medium Range Wide Beam Subsidiary			Sighting distance ≥ 0.4km.
4210215911	140mm	Green - LED lamp unit.	12Vdc
4210215917	140mm	Yellow - LED lamp unit.	
4210215913	140mm	Red- LED lamp unit.	
4210215915	140mm	White - LED Stencilled.	
Medium Range Wide Beam Subsidiary			Sighting distance ≥ 0.4km.
4210215902	140mm	Green - LED lamp unit.	110Vac
4210215908	140mm	Yellow - LED lamp unit.	
4210215904	140mm	Red- LED lamp unit.	
4210215906	140mm	White - LED Stencilled.	
Medium Range Wide Beam Subsidiary			Sighting distance ≥ 0.4km.
3210215101	140mm	Green - LED lamp unit.	12Vdc for use without current bleed resistor
3210215103	140mm	Yellow - LED lamp unit.	
3210215102	140mm	Red- LED lamp unit.	
3210215104	140mm	White - LED Stencilled.	