



AUSTRALIAN RAIL TRACK CORPORATION

Certificate No.: **S 02 1104 112**

NEW EQUIPMENT & SYSTEM APPROVAL CERTIFICATE

Approval date: 10th April 2013

Approved by: Review Panel

Report no.: TAS-02-1104-BO112

Report date: 11th February 2013

This certificate is issued to:

Supplier: **Bombardier**

In respect of:

Manufacturer: **Bombardier Transportation Australia Pty Ltd**
35-45 Frankston Dandenong Road
Dandenong
Victoria 3175
Australia

Product description: **ML TI21 DIGITAL RECEIVER**

Item identification: See approved item list

Application: ML TI21 Digital Receiver to be used on the entire ARTC network

Relevant Standards: SPS 02 – 'Environmental Conditions';
SPS 21 – 'Audio Frequency Jointless Track Circuits for Main Line'
SPS 25 – 'Signals Circuits Design Standards'

Conditions of Approval:

1. For use in accordance with ARTC signals construction standards and standard typical circuits only.
2. Only components from the list may be utilised.
3. Any changes to the design or materials are not covered by this approval certificate and are to be submitted to ARTC to be re-approved.

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 19011:2003.

Any subsequent change to the design, materials or manufacturing process is not covered by this approval.

Note/Comments: None

Issue date: 19th April 2013

Expiry date:

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Issued by:

John Furness
ARTC Manager Standards

NEW EQUIPMENT & SYSTEM APPROVAL - APPROVED ITEM LIST

Reference no.: **TAS-02-1104-BO12**
 Date: **11th February 2013**
 Product description: **ML TI21 DIGITAL RECEIVER**
 Certificate no.: **S 02 1104 112**

The following lists the individual types (by catalogue number) of TI21 Digital Transmitter Equipment manufactured by Bombardier which are submitted for type approved use in signalling circuits on ARTC infrastructure under Type Approval Certificate **TAS-02-1224-BO127** subject only to any conditions shown on that Certificates and the Conditions of Use shown against individual types.

Catalogue No.	Type	Type Description	Conditions of Use
ML TI21 Track circuit			
L520002390 (50V Relay Drive)	Track receiver	TI21 Digital Receiver Unit Mod strike 3	For use with TI21 track circuits
L520002500	Set up key	Receiver set up key	
L520002329	Mounting Plate	Standard Mounting Plate for TI21 Digital Receiver	
L520008862	Mounting Plate	Rear Connection Mounting Plate for TI21 Digital Receiver	
L520002422	Key	Frequency A Key	
L520002423	Key	Frequency B Key	
L520002424	Key	Frequency C Key	
L520002425	Key	Frequency D Key	
L520002426	Key	Frequency E Key	
L520002427	Key	Frequency F Key	
L520002428	Key	Frequency G Key	
L520002429	Key	Frequency H Key	
520001222	Connector	9-Way Female Straight	
520001224	Connector	9-Way Female right-angle	
	Track Receiver	TI21 Digital Receiver Mod Strike 2	