

**Manufacturer: Abtus Ltd**

**Issue : 2**

**Valid From : 18-05-2018**

## ABT4650 Routescan

### Product Description

The ABT4650 measures X/Y coordinates as single points or full profile scans, referenced to the running edge of the datum rail. The RouteScan also provides the user with accurate track gauge and cant readings whilst the sprung gauging foot ensures repeatability of positioning and measurement.

The unit is lightweight, electrically non-conductive and easily transported making it the ideal tool for a highly time pressured rail environment. Through the use of Bluetooth communication the user can operate the device from a position of safety offering significant benefits over more traditional gauging methods.

Optional extras:

- A target pole for the capture of measurement positions that would otherwise have been obstructed.
- A laser offset which allows the user to take height and distance offset readings from the running rails to a desired object or position such as a Platform or Datum Plate.
- A platform bracket.

### Product Image



### Scope of Acceptance

#### Full Acceptance

The product is to be used to obtain accurate structure surveys i.e. Arched Overbridges, Flat Deck Overbridges and Tunnels, in accordance with the handbook requirements for track access. The data will be created in SC0 format for use in ClearRoute™. The survey data will be used by various industry staff from maintenance, designers, Gauging Engineers, Vehicle builders, to be able to precisely calculate clearances of proposed vehicles.

Network Rail Acceptance Panel (NRAP) hereby authorises the product above for use and trial use on railway infrastructure for which Network Rail is the Infrastructure Manager under the ROGS regulations.

Reviewed by:

Authorised by:



Tom Riley  
Product Acceptance Coordinator



Malcolm Miles  
Professional Head of Plant

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## Specific Conditions

*The following Conditions are specific to the approved product/s contained within this Certificate. These conditions must be adhered to in addition to the Network Rail General Conditions contained within the "General Terms and Conditions" section. Failure to adhere to these conditions may result in the withdrawal or suspension of Acceptance of some, or all of the items contained within the accepted configuration.*

### Manufacturer

See General Terms and Conditions

### User Conditions

Where the equipment is used in a "Red Zone" the equipment and all personnel associated with the equipment's use shall be able to be disengaged from and/or clear from the track to a place of safety at least 10 seconds before the passage of a train.

There are no red zone clearance/timing issues due to the light weight and dimensions of this portable item.

When Equipment is used in live conductor rail areas the safe systems of work and protection arrangements shall as a minimum meet the requirements of Network rail standards NR/WI/ELP/3091 and NR/GN/ELP/27138.

Laser Radiation DO NOT STARE INTO BEAM class 2 laser product Complies with:

- IEC 60825-1 (2001) "Radiation safety of laser products"
- EN 60825-1 (2001) "Radiation safety of laser products".

Appropriate PPE must be worn at all times whilst the equipment is being operated.

Equipment shall only be used in accordance with the current instruction manuals applicable to this certificate.

Users to ensure that the product is kept in calibration. This will ensure that the measurements are within specification.

Users must provide the created SC0 files from the structure surveys to Network Rail's Track Geometry and Gauging NST (National Specialist Team) for review and input into the NGD (National Gauging Database).

Users of the product are responsible for ensuring compliance with the certificate conditions. If a condition is not understood guidance must be sought from Network Rail Acceptance Services.

Each party in the Network Rail supply chain procuring and receiving the product is responsible for ensuring that it is fit for purpose and that the application of use complies with the scope of acceptance.

Any product defect should be taken up immediately with the supplier. If the defect is a design or manufacturing fault likely to affect performance and/or the safe operation of the railway this shall be reported in writing to Network Rail Acceptance Services.

Anyone becoming aware of a change to the product configuration (to the actual product or its application); and a variation to or addition of manufacturing locations or processes, should inform Network Rail Acceptance Services in writing.

All staff required to use the equipment shall be suitably trained and, where appropriate, qualified as competent to use it. Users must have attended the half day training course to ensure that they have the competence to use the equipment correctly.

Products shall be maintained in accordance with the manufacturer's recommendations.

Products shall be repaired / serviced by the manufacturer or its nominated agent only.

Dispose of the product at the end of life in a responsible manner as per the guidelines of the WEEE regulations, including:

- designated collection facilities supported by the distributor take-back scheme;
- through a retailer in-store take-back scheme;
- specific areas at civic amenity collection sites across the UK or at other specific collection facilities.

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## Product Configuration

### System or Complete Assembly

Part No.	Description	Catalogue No.
ABT4650	RouteScan Gauge	0057/075504
ABT4659	Target Pole (Optional extra)	0057/075505
ABT4610	Laser Offset Gauge (Optional extra)	0039/127014
ABT4696	Platform Bracket (Optional extra)	0057/075511

## Assessed Documentation

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.
FM 25692	BSI systems BS EN ISO 9001:2000 Certificate of registration for Abtus Ltd.	15-07-2008	1
Email	Email Mosley to Rennolds with certificate conditions	12-08-2008	1
GM/RT1310	Network Rail RVE Derby - GM/RT1310 Schedule for Abtus RouteScan.	08-08-2008	1
4696-SA-Iss-01	Technical drawing for platform bracket	04-04-2018	2
Emails	Keith Colley – RouteScan Platform Bracket & Platform Gauging Manuals. Updated user manuals and confirming the previous bracket as shown in the ABT4610 manual would be superseded by the ABT4696	30-04-2018 01/05/2018	2 2

## Manuals and Training Materials

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.
4650-1	ABT4650 RouteScan Instruction Manual	1	----- 1
4696-1	ABT4696 Platform Bracket Instruction Manual	1	----- 2
4650-60 AGI2	ABT4650 RouteScan Basic Manual	3	----- 2
4610-1	ABT4610 Laser Offset Gauge Instruction Manual	6	----- 2

## Certificate History

Issue	Date	Issue History
T1	01-09-2008	Trial certificate
1	24-02-2009	First accepted for use
2	18-05-2018	Re-issued to incorporate change request for optional attachments.

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## Contact Details

### Manufacturer

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### Applicant

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### Lead Reviewing Engineer

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## General Terms & Conditions

### 1) General

- 1) This certificate can only be amended by Network Rail Product Acceptance, the Professional Head or nominated delegate. Any alterations made by other persons will invalidate the entire certificate.
- 2) Failure to abide by the requirements in this Certificate of Acceptance may invalidate the certificate, thereby restricting the right to operate the product and / or limiting the future supply and deployment of the product on the infrastructure.
- 3) Upon the review date this certificate and the product it relates to is invalid and not accepted for use. Manufacturers are to make an application for a review prior to the review date.

### 2) Manufacturer

The Manufacturer shall:

- 1) Ensure that all products supplied comply with the standards defined in the Acceptance Requirements or otherwise documented as part of the assessment, including meeting the reliability requirements included in the Acceptance Requirements and in any deed of warranty for the relevant certificate number.
- 2) Notify Network Rail Product Acceptance:
  - a. Within 48 hours, of any deficiencies affecting the quality, functionality or safety integrity of the product (including corrective action undertaken or proposed).
  - b. Of any intended change to the accepted product; changes include:
    - i. a change to the product configuration (to the actual product or its application);
    - ii. a variation to or addition of manufacturing locations or processes;
    - iii. a change in the name or ownership of the manufacturing company;
    - iv. any changes to the ability or intention to support with technical services, spares or repairs.
- 3) The Manufacturer shall provide Network Rail Product Acceptance or National Supply Chain (NSC) at least 12 (twelve) months notice of its intention to discontinue supply or to provide such notice as is reasonable if such discontinuance is outside its control and will offer the opportunity of a Last Time Buy to Network Rail together with date for last order placement and supply of the parts affected. The introduction of proposed alternative products shall be communicated to Network Rail Product Acceptance.
- 4) Provide further copies of operating and maintenance manuals to purchasers / users of the product as necessary (including certificates of conformance, calibration etc).
- 5) Provide further copies of training manuals and an appropriate level of training to purchasers or users of the product as necessary.
- 6) Where applicable, specialist technical support, repairs and servicing of the product shall be carried out by the Original Equipment Manufacturer (OEM) or authorised agent only.
- 7) Network Rail may request information from the manufacturer to prove product compliance with clauses 1 and 2 above and reserve the right to suspend and/or withdraw any application where information is not forthcoming within a reasonable timeframe.
- 8) In accordance with Network Rail's Quality Assurance Policy Statement 2011, where the specification and/or Product Acceptance Certificates specify quality assurance classifications (QA1 to QA5) for the products, the manufacturer shall comply with the specified level of quality assurance for each product and allow Network Rail access to carry out its quality assurance checks.
- 9) The manufacturer shall give Network Rail's representatives access at all reasonable times to its premises and allow them to inspect its quality systems and production methods and, if requested, to inspect, examine and test the products both during and after their manufacture and the materials being used in their manufacture.

### 3) Conditions of Use

Specifiers, installers, operators, maintainers, etc. using the product shall:

- 1) Comply with the certificate conditions. If a condition is not understood guidance must be sought from Network Rail Product Acceptance.
- 2) Check that the application of use complies with the relevant certificate's scope of acceptance.
- 3) Report any defect if it is a design or manufacturing fault likely to affect performance and/or the safe operation of the railway in writing to Network Rail Product Acceptance.
- 4) Inform Network Rail Product Acceptance in writing of a change to the product configuration (or to the actual product or its application).
- 5) Operate, maintain and service the product in accordance with Network Rail standards and Operation and Maintenance manuals as appropriate.
- 6) Be appropriately trained and authorised for the installation, maintenance and use of the product.
- 7) Only send products for repair or reconditioning to the Original Equipment Manufacturer (OEM) or authorised agent.
- 8) Users are to be aware that Product Acceptance is not a substitute for design approval.

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#### **4) Compliance**

Railways and Other Guided Systems (ROGS) Regulations

- 1) Where the product is to be used in areas where Network Rail is not the Infrastructure Manager (e.g. leased stations), the sponsor shall additionally obtain formal consent from the Infrastructure Manager for the locality where the equipment is to be installed. This may include a requirement for additional safety verification. The decision of that Infrastructure Manager is binding, and cannot be overridden by Network Rail except by the escalation processes established in the ROGS regulations
- 2) As required in Railway Group Standard GE/RT8270, at each use of this product the project or group responsible for installation and commissioning shall be required to demonstrate compatibility with:

- a. All rail vehicle types that have access rights over the area affected by the change
- b. Infrastructure managed by others
- c. Neighbours.

Railway Interoperability Regulations

- 3) For interoperable constituents of systems the project or group responsible for installation and commissioning shall be required to demonstrate compliance with the relevant Technical Specifications for Interoperability (TSI) where appropriate.
- 4) An authorisation from the national safety authority (i.e. the Railway Safety Directorate of the Office of Rail Regulation) is required before the equipment is to be used in revenue earning service.

#### **5) Supply Chain Arrangements**

- 1) Certificates of acceptance do not imply any particular quantity of supply nor any exclusivity of supply.
- 2) Products may be purchased by Network Rail or its agents, suppliers or contractors.
- 3) Manufacturers should note that it is not necessary to enter into any exclusive supply arrangements with resellers or other suppliers.