VAL050 On-board Validator
Barcode/NFC/RFID ticket validator

Fast, accurate, robust and reliable ticket reader for validating tickets and passes on any media

The VAL050 On-board Validator is designed for use in a variety of public transportation automatic fare collection systems.

It combines a proven multimedia ticket reader with an open architecture Linux computer to create a mobile ticket validator. Designed for straight forward and simple integration with third party software and an optional remote display the VAL050 provides a truly flexible solution for applications including ticket offices and vehicle fitment.

The validator combines barcode and NFC/RFID reading functionality to provide a single point of presentation for tickets and travel passes – whether presented on a paper ticket, smartcard or mobile phone.

There are 4 coloured (RGB) LEDs and a programmable speaker to confirm ticket reads.

Features
• Robust design for long-term front-line use
• Single point of presentation barcode/NFC/RFID reader
• Unique, optimised focal distance improves card and mobile phone reading performance
• LED’s for effective user feedback

Applications
• Ticket Offices
• Buses
• Trams
**Mechanical**

- **External dimensions:** 119.8W x 144.1H x 114.9D mm
- **Body:** Grey PC/ABS
- **Glass:** 4mm Toughened White Soda Lime; BS EN60068-2-75 & IEC 62262:2002

**Power supply**

- 9-36 volts from vehicle supply
- Input protected by automotive grade power conditioning circuitry

**Environmental**

- **Temperature:** Operating: -20°C to +50°C; Storage: -40°C to +70°C
- **Humidity:** 5-90% humidity, non-condensing
- **Shock and Vibration:** IEC 61373
- **Fire retardance:** EN 13501-1
- **EMC Approvals:**
  - FCC 47 CFR Part 15 Class A

**Communications and host**

- **Wired:** Ethernet
- **Host:** 1.0GHz ARM Cortex-A9 processor; 512-1024MB Ram; 32-128 GB eMMC storage, Linux OS, full API and device access for developers
- **LED indicators:** 4 x RGB LEDs
- **Sound:** Speaker with digital control for audio playback

**Reader – Barcodes**

- Reads following barcode symbologies:
  - 2D: IATA resolution 792, PDF417, Aztec, DataMatrix and QR codes
- **Performance:** Will read 2D barcodes from paper, mobile phones and tablets

**Reader – Contactless NFC/RFID**

- Reads NFC-enabled mobile phones and contactless smart and banking cards.
- **EMV Level 1**
- **NFC tags:**
  - NFC type 1 tags
  - NFC type 2 tags (Mifare Classic)
  - NFC type 2 tags (Mifare Plus)
  - NFC type 3 tags (Felica)
  - NFC type 4 tags – ISO14443-4 Type A
  - NFC type 4 tags – ISO14443-4 Type B

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**Dimensions**

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119.8W x 144.1H x 114.9D mm
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