

Rail-ID Xpress

High-Performance Industrial Computing Platform for Railway Applications

Features

- 5-in-1 cellular and Wi-Fi antenna system with GPS antenna
- Fanless/passive cooling design with aluminum alloy chassis
- Intel® Core™ i3/i5/i7 Whiskey Lake U-Series processors
- Wide voltage input: 9V–36V with reverse polarity protection
- TPM 2.0 security encryption
- 4 × Intel Gigabit LAN
- Dual display output: HDMI + VGA
- Expansion via M.2 and Mini-PCIe (Wi-Fi/3G/4G optional)
- CE, FCC Class A, RoHS, CCC certifications

Applications

- Public Safety and mission-critical connectivity
- Railway yard management and signaling integration
- Transportation connectivity and fleet control
- Industrial automation and motion control
- Medical and healthcare systems
- Data acquisition platforms

Overview

- Processor options: Intel® Core™ i3-10110U / i5-8260U / i7-10810U
- Memory: 1 × DDR4 SODIMM, up to 32 GB
- Storage: 1 × M.2 2280, 1 × 2.5" HDD, RAID 0/1 supported
- Graphics: Intel UHD Graphics, dual display (HDMI + VGA)
- I/O: 4 × LAN, 4 × USB 3.0, 2 × USB 2.0, up to 4 × COM
- Expansion: M.2 SATA, Mini-PCIe (SIM slot embedded), GPIO optional
- Power: 9–36V DC input, auto power-on, watchdog, Wake-on-LAN
- Operating Systems: Windows 10/11, Linux

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The Rail-ID Xpress is a rugged, industrial computer designed for railway and transportation environments. With an all-aluminum alloy chassis and Intel® Whiskey Lake U-Series processors (Core™ i3, i5, i7), it delivers stable performance for mission-critical applications.

The platform supports a wide voltage input (9–36V), TPM 2.0 hardware-level encryption, and a rich set of LAN, USB, and COM ports. Its compact form factor and flexible mounting options make it suitable for yard management, on-board computing, and industrial automation systems.



PROCESSOR & MEMORY

Processor options

Intel® Core™ i3-10110U (Dual-core, 4 threads, 2.1 GHz base, 4.1 GHz turbo, 4 MB cache)

Intel® Core™ i5-8260U (Quad-core, 8 threads, 1.6 GHz base, 3.9 GHz turbo, 6 MB cache)

Intel® Core™ i7-10810U (Hexa-core, 12 threads, 1.1 GHz base, 4.9 GHz turbo, 12 MB cache)

Memory

1 × DDR4 2133/2400 MHz SODIMM slot

Max. support: 32 GB

GRAPHICS & DISPLAY Chipset

Integrated Intel UHD Graphics

Display ports

1 × HDMI

1 × VGA (supports synchronous and asynchronous dual display)

I/O INTERFACES

Front I/O

2 × USB 2.0

2 × COM

1 × VGA

Rear I/O

4 × Intel 1000M LAN

4 × USB 3.0

1 × HDMI

1 × Audio (Mic + Speaker)

2 × COM (RS232/422/485 optional)

1 × Phoenix power connector (2-pin)

1 × Power switch

EXPANSION

1 × M.2 M-Key 2280 slot (SATA protocol only)

1 × Mini-PCIe slot (Wi-Fi/3G/4G optional, with SIM slot)

GPIO: 8 input / 8 output (optional)

1 × USB 2.0 (optional)

STORAGE

1 × M.2 2280

1 × 2.5" HDD

RAID 0/1 supported via BIOS

POWER

Input voltage

DC 9V–36V wide range

Reverse polarity protection

Other functions

TPM 2.0

Auto power-on

Timing boot

Wake-on-LAN

PXE boot

Watchdog (0–255 levels)

MECHANICAL

Dimensions

280 × 143 × 40 mm

Weight

1.45 kg

Material

Aluminum alloy chassis

Color

Titanium gray (custom options available)

Mounting

Desktop, wall mount, embedded, VESA

PACKAGE CONTENTS

Rail-ID Xpress unit

Power adapter (12V/5A)

Power cord (China, US, EU, UK, optional plug)

ENVIRONMENTAL & COMPLIANCE

Operating temperature

0°C to +50°C (with commercial HDD)

–20°C to +60°C (with industrial SSD)

Humidity

5%–95%, non-condensing

Certificates

CE, FCC

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