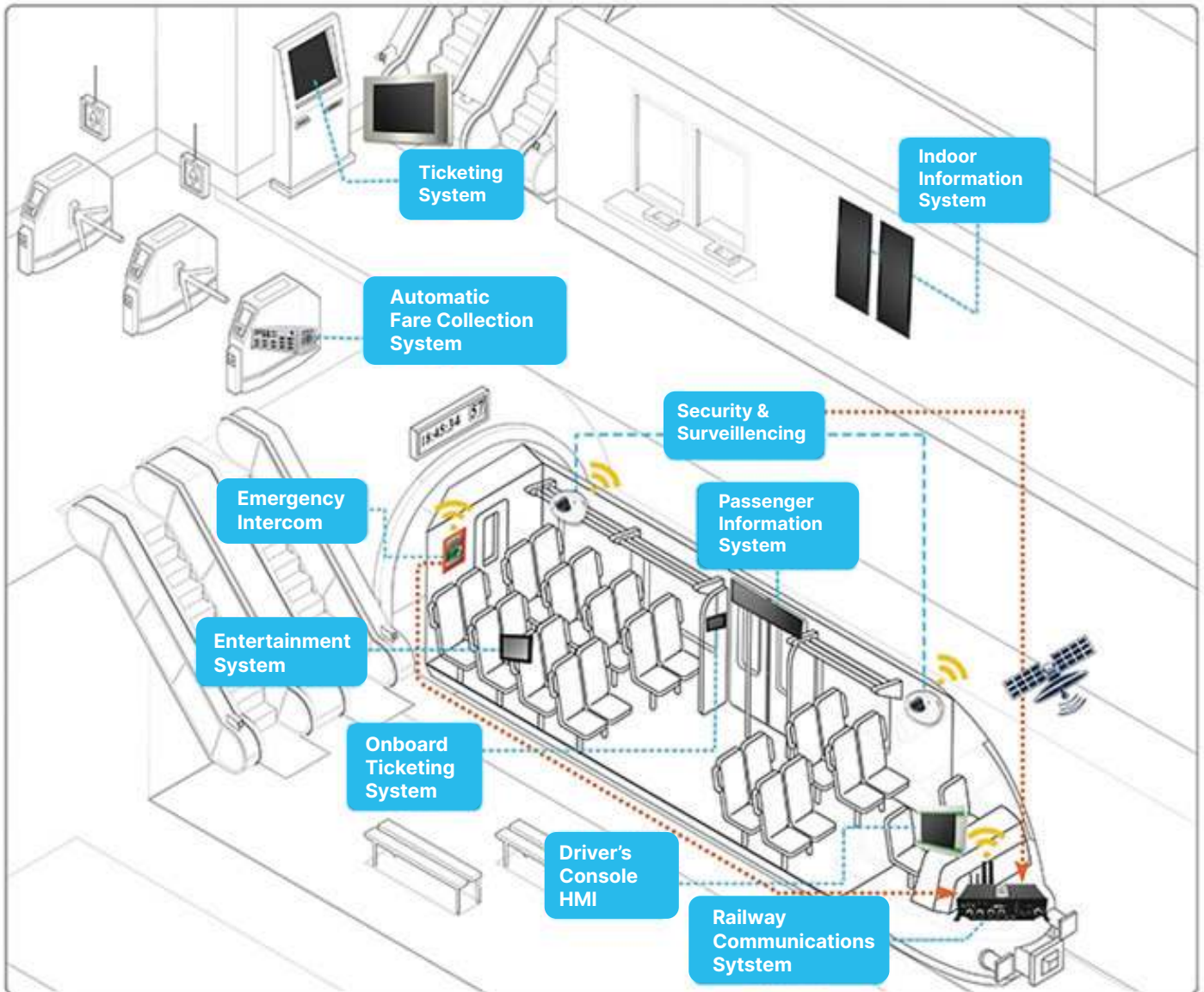# Rail Computers,
Cellular Routers and Network Appliances

Step Global offers advanced Rail Computers, Cellular Routers, and Network Appliances, designed specifically for rail applications. Enhance your rail operations with reliable and high-performance solutions from Step Global, enabling seamless control and efficient communication.

The Applications

The following list of products is only representative of the full range of products that Step Global can provide.
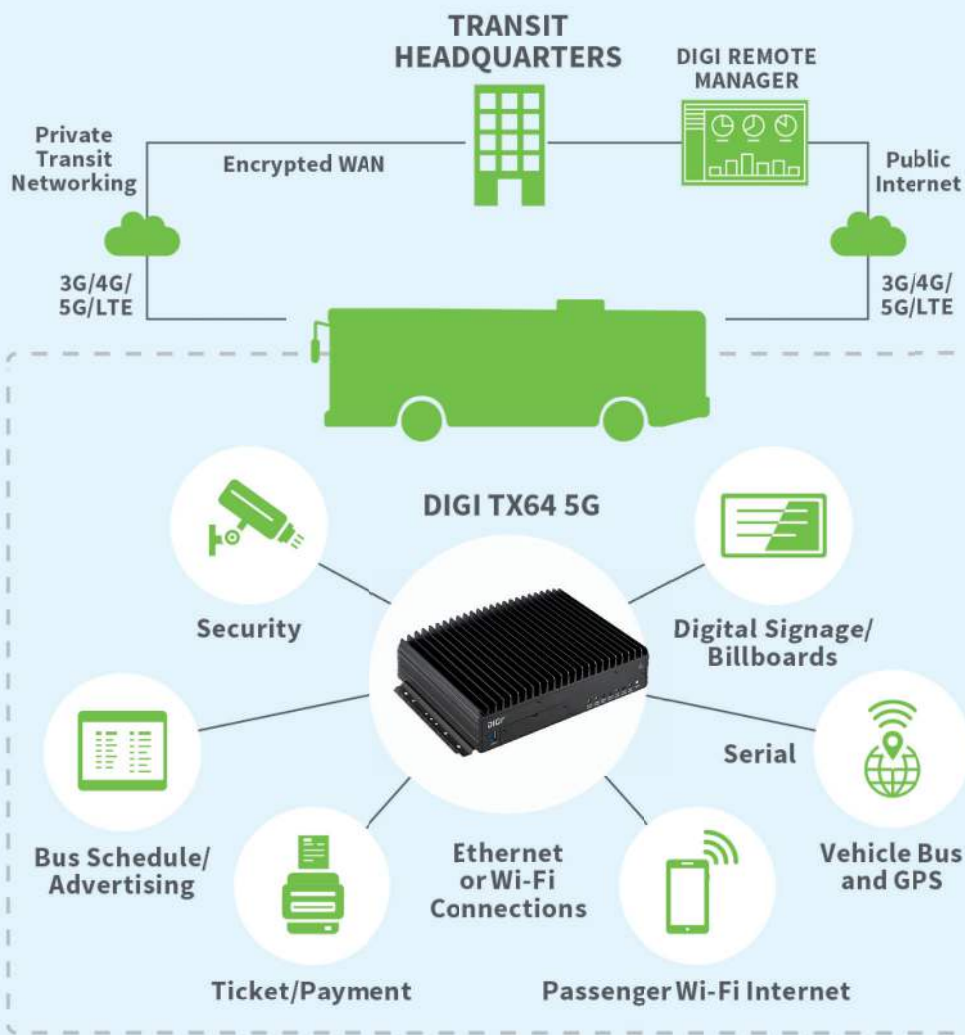

- Ticketing System
- Indoor Information System
- Automatic Fare Collection System
- Security & Surveillencing
- Passenger Information System
- Emergency Intercom
- Entertainment System
- Onboard Ticketing System
- Driver's Console HMI
- Railway Communications Sytstem

Achieve Your 5G Goals with One Solution.

5G

CONNECTIVITY ON THE GO

TRANSIT HEADQUARTERS

DIGI REMOTE MANAGER

Private Transit Networking

Encrypted WAN

Public Internet

3G/4G/5G/LTE

3G/4G/5G/LTE

DIGI TX64 5G

Security

Digital Signage/Billboards

Serial

Bus Schedule/Advertising

Vehicle Bus and GPS

Ticket/Payment

Ethernet or Wi-Fi Connections

Passenger Wi-Fi Internet

DIGI

5G Cellular Routers

Digi TX64 5G

- Quad-core processor
- Segmented private and public data communication across 5G NR Sub-6 GHz, 4G LTE-Advanced Pro and 4G LTE-Advanced modems
- Wired Gigabit Ethernet (4-port) for onboard systems
- Video and vehicle data offload over Wi-Fi 5 4x4 backhaul
- Passenger Wi-Fi over Wi-Fi 5 2x2 access point
- Digi WAN Bonding for 5G/LTE WAN aggregation and immediate failover

Digi TX64 5G Rail

- High-speed 5G NR cellular radio with 4G LTE-Advanced Pro Cat 20 and 3G fallback
- Wired Gigabit M12 Ethernet (4-port) for onboard systems
- Dual concurrent 867 Mbps 802.11ac Wi-Fi interfaces
- Untethered Dead Reckoning combines GNSS with inertial sensors
- Securely deploy, monitor and control devices with Digi Remote Manager®
- Cryptographic co-processor with secure key generation and storage
- Digi WAN Bonding for 5G/LTE WAN aggregation and immediate failover

Digi TX54 FirstNet Ready

- 5G, LTE-A Pro and LTE-A single and dual cellular models
- Primary responder models for critical communications
- Capable of segmenting private and public data communication across dual cellular modules
- High-speed Wi-Fi 5 (802.11ac) for WAN or LAN service and optional dual Wi-Fi radios
- Cryptographic co-processor with secure key generation
- Built-in Digi TrustFence® for device security, secure encrypted connections, ongoing monitoring and support
- Digi Remote Manager® platform for easy setup, mass configuration and management
- Digi WAN Bonding for 5G/LTE WAN aggregation and immediate failover

Digi Remote Manager®

Digi Remote Manager is the technology platform enabling and automating the deployment, monitoring and management of thousands of devices from a single point of command.

iBASE

INTELLIGENT TRANSPORTATION SOLUTIONS

5G

POE

FANLESS

Wide Temperature

EN50155

EN45545-2

Wide Range Operating Temperature from -40°C to +70°C	Fire Protection on Rail Vehicles	Adjustable- According to the Dynamic and Evironmental Conditions	Connect to the Internet From Anywhere
EN50155 Class II Certified E-Mark Certified	**EN45545-2 Certified**	**Proactive Shockproof Protection with Pre-sense 3-axis G-sensor and mutual GPS**	**Boundary-free Design with Dual SIM Card Sockets and Dual WWAN Modules**

Cellular

PUBLIC NETWORK

PRIVATE NETWORK

PRIVATE NETWORK

POLICE
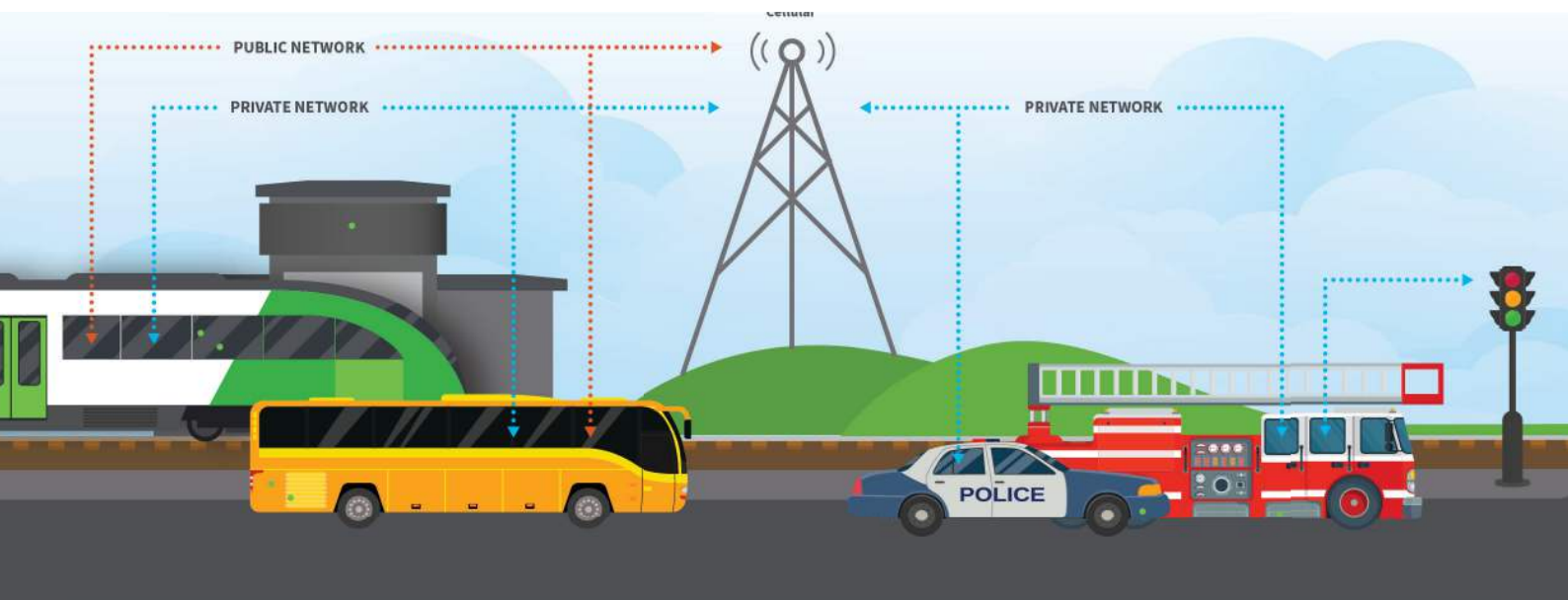
MPT-R Series Railway Computers

MPT-7000R

- EN50155 (2021) certified Fanless and ruggedized design
- Robust M12 connectors for dual GbE, USB and power input
- Dual SIM sockets support WWAN redundancy
- Two removable 2.5" device bay and CFast socket
- Rich I/O interfaces for wireless
- Ignition power control
- Wide-range voltage GPIO interface
- One PCI-E (x4) expansion

MPT-3000R

- EN50155 (2021) certified Fanless and ruggedized design
- Robust M12 connection for dual GbE, USB and power input
- Dual SIM sockets support WWAN redundancy
- Removable 2.5" device bay and CFast socket
- Rich I/O interfaces for wireless,
- SSD, GPS, WWAN and add-on card expansion
- Ignition power control
- Wide-range voltage GPIO interface

MPT-3000RP

- EN50155 certification and IP67 rated
- Fanless and ruggedized design
- Robust M12 connectors for dual GbE, USB and power input
- Dual SIM sockets support WWAN redundancy
- Rich I/O interfaces for wireless, SSD, GPS, WWAN
- Ignition power control
- Wide-range voltage GPIO interface

MPT-8000RH

- EN50155 (2021) / EN45545-2 certified
- AI solution for Transportation Supports 10th Gen Intel® Core™ Desktop processors
- Up to 10x GbE ports (8x with PoE capability) Optional 10G LAN
- Supports Intel® Movidus Vision Acceleration M.2 modules
- Supports Wi-Fi 6 CNVi, dual WWAN channels, RAID 0/1/5
- 1x USB Type-C with graphics output for quick setting and diagnostics

MPT-500R

- Intel® Atom® x6425RE/x6 212RE processors EN50155 (2021) / EN45545-2 certified
- Fanless and ruggedized design
- Robust M12 connection for one 2.5G LAN, dual GbE LAN with PoE, dual USB
- Isolated USB, RS485 ports
- SIM socket with dual WWAN support
- Optional isolated CANbus thru Mini PCIE card
- Wide-range operating temperature from -30°C to +70°C

MPT-1000R

- EN50155 (2017) certified
- Fanless and ruggedized design
- Robust M12 connection for dual GbE, USB
- Onboard isolated CANbus SIM socket supports Dual WWAN
- Add on card slots reset function
- Quick accessible RTC battery

iBASE

INA3600

Enterprise 1U Network Appliance with 10th Gen Intel® Xeon® / Core™ i9/i7/i5/i3 / Pentium® Gold / Celeron® Processor & up to 14 GbE Ports

FWA8708

Enterprise 1U Network Appliance with 9th or 8th Gen Intel® Xeon® / Core™ i7/i5/i3 Processor & up to 16 GbE Ports

INA7600

Performance 2U Network Appliance with Dual 3rd Gen Intel® Xeon® Scalable Processors & up to 66 GbE Ports

FWA8600

Enterprise 1U Network Appliance with Intel® Xeon® Processor D-2100 Series & up to 25 GbE Ports

FWA6706R

Enterprise 1U Network Appliance with Intel® Atom® Processor C3000 Series & 6x GbE & 4x 10GbE Ports

INA3605

Enterprise 1U Network Appliance with Intel® Xeon® E-2300 Processors & up to 16 GbE Ports

FWA8800

Performance 1U Network Appliance with AMD EPYC™ Embedded 3000 Series & up to 17 GbE Ports

INA3604

Enterprise 1U Network Appliance with Intel® Atom® Processor C3000 Series & 6x GbE & 4x 10GbE Ports

FWA8408

Enterprise 1U Network Appliance with 7th or 6th Gen Intel® Xeon® / Core™ i7/i5/i3 Processor & up to 16 GbE PortsT

FWA8406

Enterprise 1U Network Appliance with 7th or 6th Gen Intel® Core™ i7/i5/i3 Processor & 6 GbE Ports

FWA8506

Enterprise 1U Network Appliance with Intel® Atom® Processor C3000 Series & 6x GbE & 4RTx 10GbE Ports

FWA6706R

Entry 1U Network Appliance with Intel® Celeron® Processor N3350 & 6 GbE Ports

Edge Computing / Wide Temperature System

iBASE

AGS103T

Compact IoT Gateway Edge Computing System with Intel® Atom® x6414RE/x-6212RE Processors

AGS102T

Ultra-Compact IoT Gateway Edge Computing System with Intel® Atom® x7/x5, Pentium® & Celeron® Processors

AGS100T

Ultra-Compact IoT Gateway Edge Computing System with Intel® Atom® x7/x5, Pentium® & Celeron® Processors

The Intel® Apollo Lake-based AGS Series intelligent IoT gateway system designed for industrial control and factory automation applications can be used as an IoT gateway platform to connect devices and securely transfer data to clouds, or as a Machine-to-Machine (M2M) gateway, providing interconnection of wired or wireless devices to enhance workflow in various industrial environments.

The AGS102 can be powered by Intel® Atom® processor E3950/E3930 with extended operating temperature (-40°C to 70°C), Intel® Pentium® N4200, and Celeron® N3350 processors (-20°C to 60°C). It supports 4GB DDR3L-1866 DO-DIMM, a 64GB MLC industrial-grade mSATA SSD, dual display ports (DVI-I and DisplayPort), 4x USB 3.0, 2x GbE, 2x COM, a DC-in terminal block for 9V~36V input and over/under/reverse voltage protection.

The rugged aluminium and steel chassis of the AGS102 enhances heat dissipation and features easy expansion with a full-size Mini PCI-E socket, a 2230 M.2 E-Key socket for WLAN & BT, a 3042 M.2 B-Key socket for WWAN & SSD, an mSATA socket (Mini PCI-E), and a 2242 M.2 B-Key socket for mSATA SSD. Aside from a wide-operating temperature range, it supports shock and vibration tolerance standards (IEC 60068-2-64 / MIL-STD-810G), the durability needed to withstand harsh environments. Measuring 160mm (W) x 110mm (D) x 44mm (H), it comes with both DIN-rail and wall mounting kits.

Railway System Solutions

- High-performance CPU with Intel® Core™ processor
- Fanless design for rolling stock products and supports hot-swappable SATA SSD module
- Operation reliability and maintainability

- Real-time network communication for train drivers and control center
- Special design for tough environment and wide operation temperature range
- Fully compliant with E-Mark certificate for rolling stock products
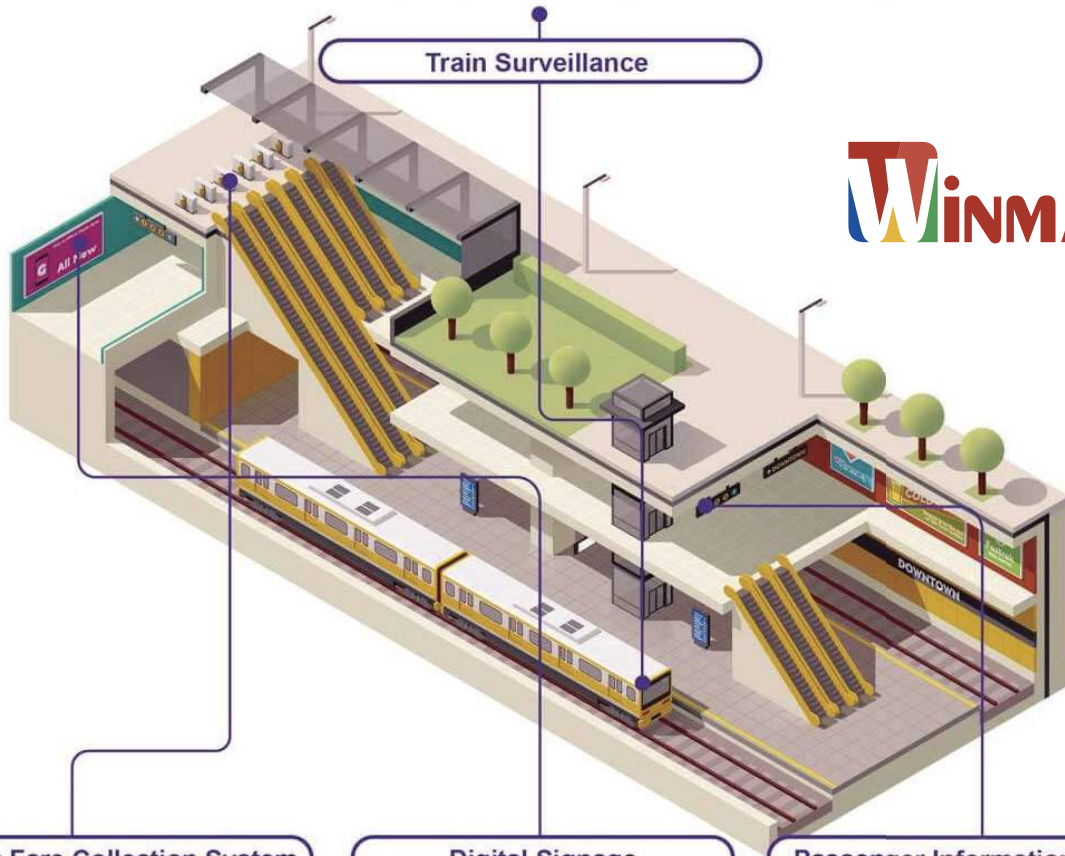
Control Room

W24L100-POA2

- 23.8", 1920 x 1080
- VGA and HDMI input
- Open frame
- VESA mount

FM07A

- Android-based i.MX 6 Dual Core 1 GHz Processor
- 7" 1024 x 600 panel with projected capacitive Multi-Touch screen
- Wide power input 9-24V DC with ignition

EACIL20

- Intel® Apollo Lake N3350 1.1 GHz
- Fanless cooling system
- Compact size 100 x 70 x 31 mm(w/o mounting bracket)

Train Surveillance

Automatic Fare Collection System

Digital Signage

Passenger Information System

EAC PRO-IK90

- 6th Generation Intel® Xeon® E3, 7th Generation Core™ i7/i5/i3 Processors
- HD 4K resolution & 4U Height Design
- Flexibility, Connectivity and Multi-Expansion

IB70SB7-101

- Intel® Celeron® Bay Trail-M N2930, 1.83 GHz
- Flexible storage devices, One 2.5-inch HDD and One Mini PCIe SSD
- Multiple I/Os, Three Serial Ports and Six USB Ports (1 x USB 3.0)

R15FA3S-PCC3-POE

- 15" 1024 x 768 TFT LCD with Projected Capacitive Multi-Touch (PCAP)
- NXP i.MX6 Dual Core 1 GHz (Optional Quad Core)
- Fanless and ultra-low power consumption

Box PC's

One of the standout features of the Winmate M Series Box PC is its flexibility. The system design allows for easy upgrading of memory, replacement of the hard disk, or modification of the display size. This means that businesses can easily adapt the device to meet their changing needs without having to purchase a completely new unit.

The Winmate M Series Box PC is also highly customizable, empowering Total Cost of Ownership (TCO) applications. This means that businesses can choose the exact specifications they need to optimize their operations and increase productivity. The device is compatible with a wide range of peripherals, including displays, keyboards, and mice, making it easy to integrate into existing systems.

IE32SB3-101

Intel® Celeron® N6211 M Series Box PC

IE32SB3-101-6L

Intel® Celeron® N6211 M Series Box PC

ITMH100-6L

Intel® Core™ i5-1135G7 M Series Box PC

ITMH100-EX

Intel® Core™ i5-1135G7 CID2 M Series Box PC

IBMH100

Intel® Atom® E3845 M Series Box PC

ITMH100

Intel® Core™ i5-1135G7 M Series Box PC

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store: www.shop.stepglobal.com

Full IP65 EAC Box PC

The Full IP65 EAC Box PC with M12 Connector is a highly durable, ruggedized computer that is designed to withstand extreme conditions such as temperature fluctuations, moisture, dust, and vibrations. It is built with an aluminum housing and a fanless design, making it resistant to corrosion, electromagnetic interference, and shock. In addition, it comes with an M12 connector, which is a robust and reliable type of connector commonly used in industrial environments.

Moreover, the EAC Box PC with M12 Connector is designed to be completely sealed, achieving an IP65 rating, which means that it is both dust and water-resistant. This makes it an ideal solution for industrial environments where equipment may be exposed

F65EAC-IT32

Full IP65 Rugged Embedded PC with M12 Connector, Intel® Core™ i5-1135G7

F65EAC-IV32

Full IP65 Box PC, Intel® Core™ i7-3517UE

F65EAC-IW32

Full IP65 Rugged Embedded PC with M12 Connector, Intel® Core™ i5-8265U

F65EAC-IK32

Full IP65 Box IPC, Intel® Core™ i5-7200U

Radio Gateway

Winmate's intelligent Radio Gateway is a revolutionary device that allows different radio systems to communicate and work together seamlessly. With the RG100, organizations can easily connect and leverage their existing radio assets, regardless of the radio network, endpoint, or frequency used. The device enables radio users to communicate directly with users on any SIP end device and participate in the same voice conferences. The device supports a wide range of protocols, allowing users to connect with a variety of radio systems. This means that organizations can integrate different radio systems into a single network and communicate with each other effectively.

RG100
Radio Gateway

Router Management

Router Management	Web Based Configuration HTTPS Web Software Upgrade Configuration Backup and Restore Reset to Default Button

IP Network Spec

Network Security Specifications	HTTPS	WAN	Static IP, DHCP
Network Protocol Support	SIP Client, NTP Client, DNS Client, Web Server,DHCP Server, SSH Server	IPv4	Support

IO Ports

USB Port	2x USB 3.0	SD Card Slot	1 x Micro SD Card Slot
SIM Card Slot	1 x SIM card slot	Indicator	Radio, WAN, LAN, Register, Alarm, Power
DIDO	4 x DI, 4 x DO	RJ-45	1 x WAN 1 x LAN 2 x Radio

Certification

Certification	CE, FCC

Power

Power Rating	9~36V DC input(Terminal Block)

System Specification

Memory	4GB RAM	Storage	64GB SSD
Operating System	Ubuntu		

RF Spec

Frequency Range	VHF：134~174MHz or UHF：400~470 MHz	LTE Band	B1/B3/B5/B7/B8/B20/B28/B32
Wi-Fi	802.11 a/b/g/n/ac		

WINMATE

EAC MINI IoT GateWays

EACIM20

A53 Quad-core Industrial
IoT Gateway

EACIL21

EAC Mini IoT Gateway with
Intel® Celeron® N3350

EACIL67

IoT Gateway Mini PC with
Intel® Celeron® N3350

Winmate's IoT Gateway is an advanced embedded system that offers highly versatile and intelligent solutions to
support a wide range of applications, including industrial automation, smart transportation, facility management, and full Internet of Things (IoT) integration. With superior Wi-Fi and LTE connectivity and support for Fieldbus interface, Winmate's IoT gateway platforms provide secure and
scalable computing to enable seamless edge-to-cloud connection, data aggregation, filtering, and data transmission from the edge to the cloud with confidence.

The EACFA20 offers more than a dozen expansion possibilities with its expansion modules, providing abundant options for additional serial interfaces such as CANBUS and digital I/O, or wireless connectivity options with 4G LTE.
The wireless connectivity and necessary connectors allow the EACFA20 to send data directly from manufacturing facilities to cloud servers, making it suitable for various IoT applications like smart factories or machine automation.

STEPGLOBAL