



Billion M150

Advanced Industrial 4G/LTE Router

Overview

The Billion M150 Advanced Industrial 4G/LTE Router is a high performance fixed wireless platform enabling real-time 4G Cellular data connectivity for your existing serial devices and Ethernet network. The M150 provides a reliable and cost-effective alternative solution for business continuity. The platform can served as the primary connection or backup connection when wired connections fail, are unavailable or non-existent.

High Availability and Network Resilience

The M150 features two Gigabit Ethernet interfaces and a RS-232/ RS-485 Serial interface enabling wireless data connectivity for a broad range of applications and vertical machine-to-machine (M2M) market segments. Intelligent software supports configurable LAN/WAN options, and enterprise level functionality such as: SPI firewall, Quality of Service (QoS), auto failover for unparalleled uptime and network redundancy.

Designed for Industrial Environments

M150 is designed for continuous operation in harsh environments, the M150 supports an extended operating temperature range from -20 to 60° C (-4 to 140° F) and a flexible input voltage range of 9-56V DC making it suitable for diverse environments and applications. To enable simple, reliable and efficient integration the ultra-compact, lightweight and low profile design incorporates highly flexible mounting options to ensure that the device and can be easily mounted discretely anywhere.

High performance & reliability and easy to manage and access

- Offers 4G/LTE and/or Ethernet IP broadband connectivity (3G Fallback is optional)
- Automatic failover for network resilience and reliable connectivity
- Option GPS for real-time asset tracking and location data-based application^{*4}
- Local and Remote management via Web GUI, SNMP or CWMP(TR-069)

Serial Port (DB-9 female)

- RS-232/ RS-485
- Supports Modbus/TCP, Telnet Server, SSH Server, UDP Server/ Client, TCP Server/ Client

Ultra-Compact and Lightweight Design

- Small form factor M2M with affordable price
- Fits in the palm on your hand
- Simplified deployments, easily mounted discretely anywhere

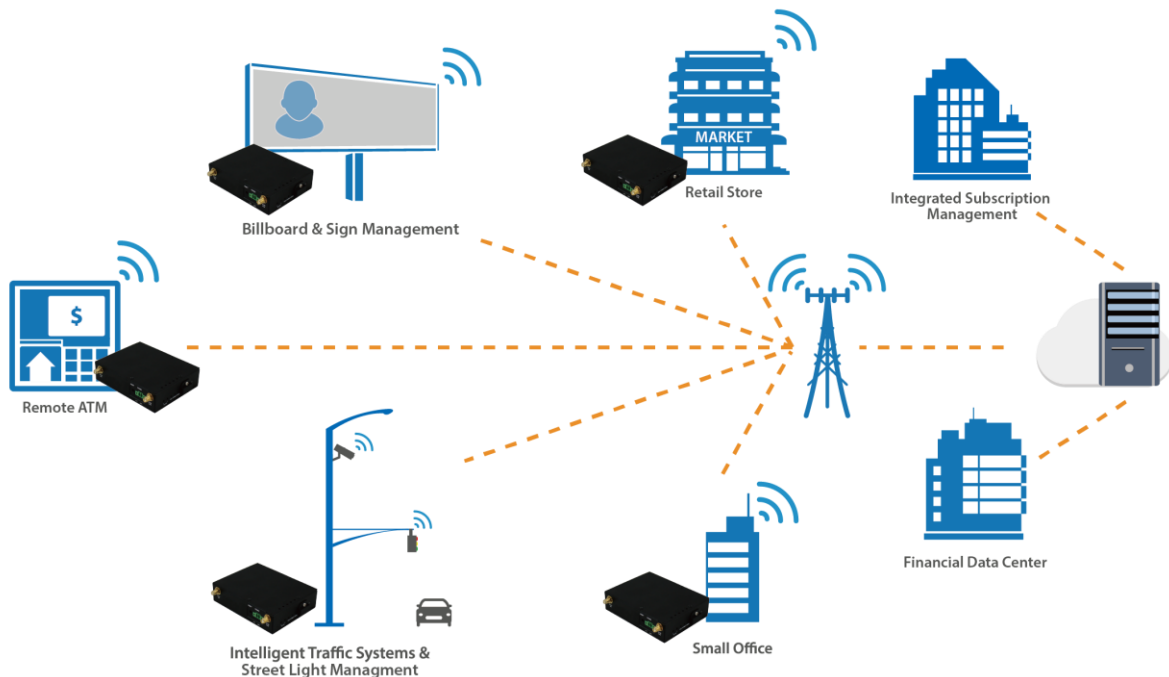
Designed for Industrial Environments

- Hardened enclosure with Industrial-graded components
- Extended Temperature Range
- Flexible Input Voltage selection

Ideal Solution for

- Digital signage, Remote surveillance, Vending Machines, Retail Point-of-Sales (PoS), Remote patient care/maintenance services, SCADA

Application Diagram



Features & Specifications

■ Availability and Resilience

- Dual-WAN Interfaces (LTE, GbE WAN)

■ Embedded 4G/LTE*¹

- Embedded high performance 4G/LTE module
- Frequency bands and data rate depend on equipped LTE module.

■ Network Protocols and Features

- Dual WAN Failover/ Failback
- Dual WAN Load Balancing
- IPv4, IPv6, IPv4/IPv6 dual stack²
- Dual APN³
- Keep Alive
- IP Pass-Through
- NAT, Virtual Server and DMZ
- Static Routing, Dynamic Routing (RIP v1/v2, OSPF, BGP)
- SNTP, DNS relay and DDNS
- Universal Plug and Play (UPnP) compliant
- Supports DHCP server/ client/ relay

■ Firewall

- Built-in NAT Firewall
- Stateful Packet Inspection (SPI)
- Prevents DoS attacks including Land Attack, Ping of Death, etc.
- Access Control
- IP Filtering, MAC Filtering, URL Filtering
- VPN Pass-through

■ Virtual Private Network (VPN)

- IPSec
- PPTP
- L2TP
- GRE
- OpenVPN

■ Serial Port (RS-232 / RS-485)

- DB-9 female
- RS-232 / RS-485
- Modbus/TCP, Telnet Server, SSH Server, UDP Server/ Client, TCP Server/ Client

■ Global Navigation Satellite System (GNSS)⁴

- GPS (and/or GLONASS) system

■ Management

- Password protection for system management
- Web-based GUI for remote and local management
- Firmware upgrades and configuration data upload and download via Web-based GUI
- TR-069 (CWMP)², SNMP
- 3G/ 4G LTE Usage Allowance
- Remote System Log monitoring
- Scheduling Auto-Reboot
- Physical layer/protocol diagnostic test tool

■ Hardware Specifications

Physical Interface

- WAN: 4G/LTE (and/or ETH WAN option)
- Serial Port(DB-9 female): one(1) port
- Ethernet LAN: 2-port 10/100/1000Mbps auto-crossover (MDI/ MDI-X) switch
- SIM Card: one(1) slot
- Reset Button
- Power Connector: 2-pin connector
- LED Indicators
- Antenna:
 - 4G/LTE: two(2) detachable antennas
 - GPS: one(1) detachable antenna(option⁴)

Power Specifications

- Input: DC 9V~56V

Physical Specifications

- Dimensions: 4.29"(W) x 1.17"(H) x 3.43"(D)
(109mm x 29.7 mm x 87 mm)

Operating Requirements

- Operating: -20°C to 60°C (-4°F to 140°F)
- Humidity: 20 ~ 95% non-condensing

Notes:

1. The 4G LTE is dependent on your local service provider.
2. Only upon request for Telco/ ISP tender projects.
3. Dual APN is not supported on some specific SKU, please confirm it with our sales.
4. The support for GPS and/or GLONASS functions depends on the equipped module's capabilities.
5. Specifications in this datasheet are subject to change without prior notice.

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