BILLION®

Billion M100

Advanced Industrial 4G/LTE Router

Overview

The Billion M100 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 M100 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 M100 features two Gigabit Ethernet interfaces and a RS-232 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

The M100 passed UL Class 1 D2 certification, purpose-built for continuous operation in harsh environments, the M100 supports an extended operating temperature range from -20 to 60º C (-4 to 140º 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
- Local and Remote management via Web GUI, SNMP or CWMP(TR-069)

QoS (Quality of Service)
- Traffic prioritization based-on IP protocol, port number, and IP address

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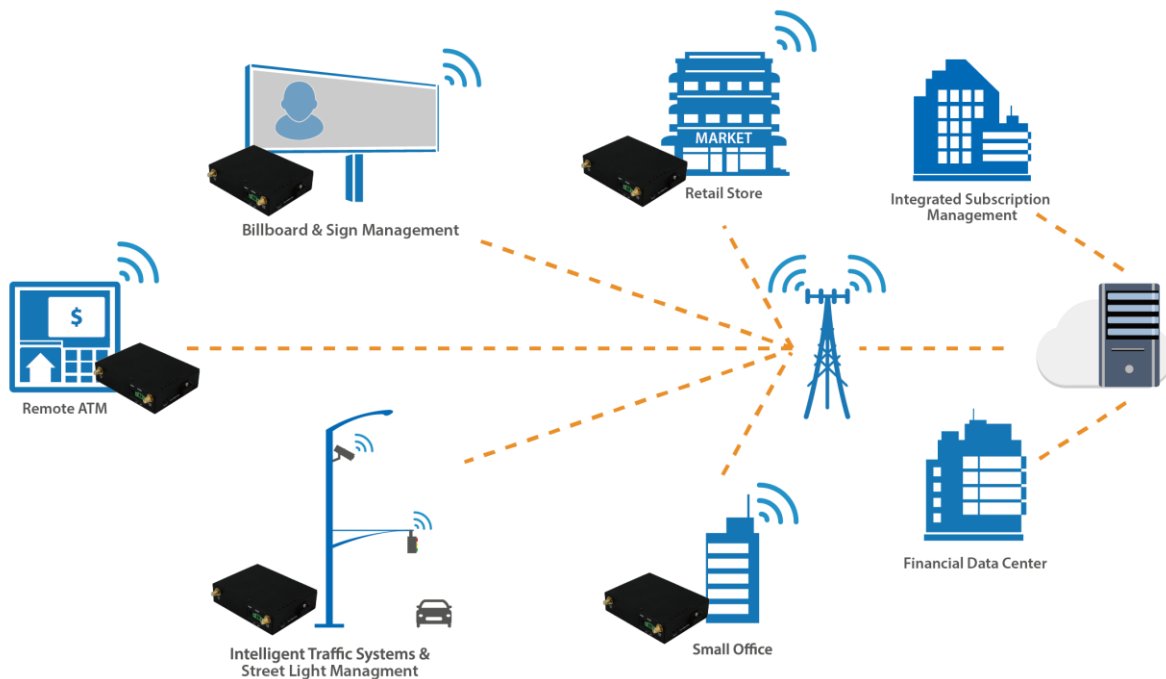- Simplified deployments, easily mounted discretely anywhere

Designed for Industrial Environments
- Hardened enclosure with Industrial-graded components
- Extended Temperature Range
- Flexible Input Voltage selection
- UL Class 1, Division 2 Certified

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

Application Diagram

Billboard & Sign Management

Retail Store

Integrated Subscription Management

Remote ATM

Financial Data Center

Intelligent Traffic Systems & Street Light Managment

Small Office

Features & Specifications

■ Availability and Resilience
- Dual-WAN Interfaces (LTE, EWAN)
- Auto fail-over and failback

■ Supported Frequency Bands
- Primary WAN LTE: FDD and/or TDD (Bands depend on module configuration) *1

■ Network Protocols and Features
- Dual APN*2
- IPv4, IPv6, IPv4/IPv6 dual stack*3,*4
- NAT, Virtual Server and DMZ
- Static Routing, Dynamic Routing (RIP-1/2, OSPF, BGP)
- SNTP, DNS relay and DDNS
- IGMP Snooping and IGMP Proxy
- Supports DHCP server/client/relay
- VRRP

■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
- Password protection for system management
- VPN Passthrough

■ Virtual Private Network (VPN)
- IPSec
- PPTP
- L2TP
- GRE
- OpenVPN

■ Serial RS-232
- DCE, DB-9
- Modbus/TCP, UDP Server, TCP Server, TCP Client, Telnet Server, SSH Server

■ Management
- Web-based GUI for remote and local management
- Firmware upgrade and configuration data upload and download via web-based GUI
- TR-069(CWMP)*4, SNMP
- Universal Plug & Play (UPnP)
- Access control by services or protocols
- Network Time Protocol (NTP)
- Remote System Log monitoring
- Physical layer/protocol diagnostic test tool

■ Hardware Specifications
Physical Interface
- Antenna:
  - 4G/LTE: two (2) detachable antennas
  - GPS: one (1) detachable antenna(option)
- WAN: 4G/LTE (and/or ETH WAN option)
- RS-232 (DCE, DB-9): 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

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. Dual APN is not supported on some specific SKU, please confirm it with our sales.
3. The support IPv6, IPv4/ IPv6 dual stack functions depends on the equipped module's capabilities.
4. Only upon request for Telco/ ISP tender projects.
5. Specifications in this datasheet are subject to change without prior notice.