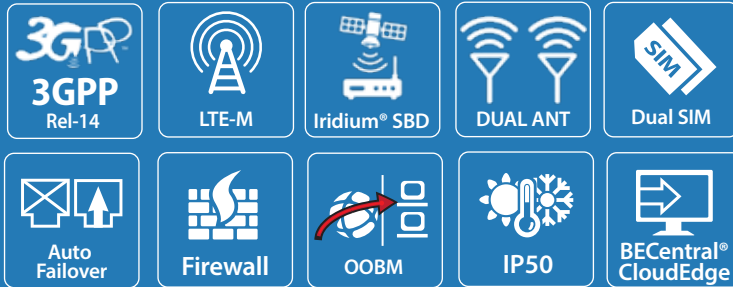


MXConnect® BEC MX-340-IRD

Hybrid LTE-M + Iridium® SBD IoT Gateway



Ideal Use Cases

Remote IoT and M2M Connectivity
Backup Connectivity for Critical Field Assets
Utility Distribution Automation and Monitoring
SCADA, RTU and Remote Telemetry
Energy, Pipeline, and Industrial Field Operations
Environmental and Remote Asset Monitoring
Critical Communications Beyond Terrestrial Coverage

Hybrid LTE-M + Satellite Connectivity

The MX-340-IRD combines LTE-M cellular connectivity with Iridium® Short Burst Data® satellite communications and integrated GNSS for remote IoT applications where terrestrial coverage may be unavailable or unreliable.

LTE-M or Iridium SBD can be selected as the preferred connection. In typical deployments, LTE-M serves as the primary path, with automatic failover to Iridium SBD when cellular connectivity is lost and automatic fallback when service is restored.

With Ethernet, serial interfaces, digital I/O, secure routing, and BECentral® CloudEdge management, the MX-340-IRD supports remote monitoring, telemetry, control, and critical communications across distributed field assets.

Intelligent Satellite Messaging

The MX-340-IRD identifies, prioritizes, buffers, and forwards critical information over Iridium SBD when required. This can include alarms, telemetry, equipment status, GNSS location, selected Modbus or DNP3 data, and customer-defined payloads.

This application-aware approach helps maintain essential communications without treating the satellite link as a conventional broadband connection.

Reliable Connectivity for Remote Operations

Designed for distributed field environments, the MX-340-IRD provides resilient connectivity for remote equipment, field cabinets, RTUs, controllers, sensors, and other critical IoT assets.

Its rugged industrial design, wide operating temperature range, flexible power input, and multiple interfaces make it well suited for utility, energy, transportation, industrial, and remote infrastructure deployments.



Hybrid Connectivity and Network Resilience

- LTE-M cellular connectivity
- Iridium® Short Burst Data® satellite connectivity
- User-selectable preferred connectivity path
- Automatic LTE-M-to-SBD failover and fallback
- Global Iridium satellite coverage

Intelligent Satellite Data Handling

- Application-aware SBD message processing
- Prioritization of critical information
- Store-and-forward data buffering
- Alarm and event messaging
- Telemetry and equipment status
- Customer-defined application payloads

Industrial-Grade Design

- Rugged and hardened metal housing
- Extended temperature range (-40 to 70°C)
- Flexible input voltage (10 to 56 VDC)
- IP50 ingress protection
- DIN rail and wall-mount installation
- Compact form factor for space-constrained installation

Management

- BECentral® CloudEdge support
- Web-based GUI for remote and local management
- Remote monitoring, alerts, diagnostics, and reporting
- API support for third-party integration
- SNMP v1/v2/v3, MIB-I and MIB-II support

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Features & Specifications

Availability and Resilience

- LTE-M, Iridium SBD, and Ethernet WAN connectivity
- User-selectable preferred communications path
- Automatic LTE-M / Iridium SBD failover and fallback
- Load balancing across supported IP-based WAN connections
- Application-aware satellite data prioritization and buffering

Cellular and Satellite Connectivity

• LTE Cat M1, 3GPP Release 13/14

- : Frequency Bands
- : 1, 2, 3, 4, 5, 8, 12, 13, 18, 19, 20, 25, 26, 28, 66, 71, 85
- : Operation: Half-duplex
- : Channel Bandwidth: 1.4 MHz
- : Modulation: QPSK / 16QAM
- : Data Rate: up to 588 kbps DL / 1.2 Mbps UL

• Iridium® Satellite Connectivity

- : Iridium® Short Burst Data® (SBD®) over global LEO satellite network
- : L-band: 1616 to 1626.5 MHz
- : Satellite Tx Power: up to 32.2 dBm
- : Two-way SBD messaging
- : Message Size: up to 340 bytes MO / 270 bytes MT
- : Global pole-to-pole coverage

Global Navigation Satellite System (GNSS)

- Integrated GNSS Engine
- Supports GPS, GLONASS, BeiDou, and Galileo
- LTE-concurrent GNSS operation

Serial Port

- RS-232 / RS-422 / RS-485 serial connectivity

Digital IO

- Alarm IO

Network Protocols and Features

- IPv4, IPv6, IPv4 / IPv6 dual stack
- IPv6 in IPv4 (6RD) / IPv4 in IPv6 (DS-Lite) / IPv6-464XLAT
- Dual APN
- Keep Alive
- NAT, static routing and RIP-1/2
- Dynamic Domain Name System (DDNS)
- Virtual server and DMZ

Firewall

- Built-in NAT Firewall
- Stateful Packet Inspection
- Prevents DoS attacks including Land Attack, Ping of Death, etc.
- Access Control
- IP / MAC / URL / Domain Filtering

Utility Protocols and Standards

- PTP Ethernet (Precision Time Protocol Ethernet)
- Modbus/TCP
- DNP3/TCP
- IEC 61850-90-5 R-GOOSE
- IEC 61850-3
- IEEE 1613
- IEEE 2030.5

Management

- BECentral® CloudEdge Management
- Web-based GUI for remote and local management
- SNMP v1/v2/v3, MIB-I and MIB-II support
- Syslog monitoring
- SMS Control function for status and reboot

Hardware Specifications

Physical Interface

- One LTE-M antenna connector
- One shared Iridium SBD / GNSS antenna connector
- Ethernet LAN/WAN: 2-port GbE, Auto MDI/MDI-X
- Serial: 2 x DB9
- Digital Input: 1 x 2 Terminal Block
- Console: 1 x 3 Terminal Block
- SIM slot (2FF)
- Reset button
- Power Connector: 1 x 3 Terminal Block
- LED indicators

Physical Specifications

- Dimensions: 4.8 (W) x 1.5 (H) x 3.8 (D) in. (125 x 97 x 40 mm)
- Weight: 1.36 lbs (0.62 kg)

Power Requirements

- Input: 10 to 56 VDC

Operating Environment

- Operating Temperature: -40° to 70°C (-40° to 158°F)
- Humidity: 20 ~ 95% non-condensing

IP Rating

- IP50

Hardware Interfaces

