

MXConnect® BEC MX-340-D2C

Hybrid IoT Gateway with Direct-to-Cell Connectivity



Ideal Use Cases

Remote IoT and M2M Connectivity
Backup Connectivity for Critical Field Assets
Utility Distribution Automation and Monitoring
Remote Infrastructure and Cabinet Connectivity
Energy, Transportation, and Industrial Field Operations
SCADA, RTU, and Sensor Backhaul
Connectivity Beyond Reliable Terrestrial Coverage

Direct-to-Cell Connectivity for Remote IoT Deployments

The MX-340-D2C extends IoT connectivity beyond traditional terrestrial cellular coverage by supporting standard LTE Cat 4 connectivity and Direct-to-Cell capability where enabled by participating operators. Designed for low- to moderate-bandwidth IoT and field applications, the gateway provides a practical connectivity option for monitoring, control, telemetry, and remote access use cases across utility, energy, transportation, and industrial environments.

With LTE Cat 4 performance, Ethernet connectivity, serial interfaces, digital I/O, secure routing, and flexible deployment options, the MX-340-D2C supports reliable connectivity for remote equipment, field cabinets, sensors, controllers, meters, RTUs, and other distributed IoT assets.

Reliable Edge Connectivity for Hard-to-Reach Locations

Built for distributed field environments, the MX-340-D2C helps organizations connect, monitor, and manage remote assets where reliable communications are difficult to maintain. With LTE Cat 4, Direct-to-Cell support, Ethernet, serial interfaces, digital I/O, secure VPN, automatic failover, and BECentral® CloudEdge management, the gateway helps reduce site visits and improve visibility across remote infrastructure.

Its compact industrial housing, wide operating temperature range, flexible power input, and ruggedized design make it suitable for field cabinets, remote sites, utility infrastructure, transportation assets, and other distributed edge environments.

Valuable insights and Essential Network Visibility at the Edge

Seamless Integration with BECentral® CloudEdge. The platform simplifies deployments of any scale with zero-touch provisioning and provides visual dashboards with real-time analytics, detailed reporting, historical analysis, performance monitoring, proactive alerts/notifications, and API extensibility for 3rd party integration.

LTE Connectivity and Network Resilience

- 4G/LTE Cat 4. (Max.) 150 Mbps (DL) / 50 Mbps (UL)
- Direct-to-Cell LTE support
- Terrestrial and satellite-enabled IoT connectivity
- Multi-WAN and Automatic Failover
- Dual SIM and eSIM

Enterprise Class Routing and Secured VPN

- BGP and OSPF Dynamic Routing Protocols
- IPsec VPN, OpenVPN, PPTP, and GRE support
- Secure remote access for distributed field assets
- Supports reliable connectivity for telemetry, monitoring, and control applications

Industrial-Grade Design

- Rugged and Hardened Metal Housing
- Extended Temperature range (-40 to 75°C)
- Flexible input voltage (10V - 56V.)
- IP50 ingress protection
- DIN rail and wall-mount installation

Management

- BECentral® CloudEdge support
- Web-based GUI for remote and local management
- Remote monitoring, alerts, diagnostics, and reporting
- SNMP, TR-069, and API support, if applicable



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Features & Specifications

Availability and Resilience

- Multiple WAN ports (4G/LTE, D2C and ETH WAN,)
- Terrestrial LTE Cat 4 connectivity
- Direct-to-Cell (D2C) connectivity
- Automatic WAN failover
- Dual SIM support
- Load balancing for outbound traffic

Supported Frequency Bands

• 4G / LTE (Cat. 4)

- : Support Frequency Bands (FDD & TDD)
- : 1, 2, 3, 4, 5, 7, 8, 12, 13, 18, 19, 20, 25, 26, 28, 38, 39, 40, 41
- : WCDMA: 1, 2, 4, 5, 6, 8, 19
- : GSM: 1, 3, 5, 8
- : Channel Bandwidth: 1.4 / 3 / 5 / 10 / 15 / 20 MHz
- : Modulation: 64QAM DL / 16QAM UL

• Direct-to-Cell (D2C)

- : Supports D2C operation where enabled by participating network operators
- : D2C bands, bandwidth, service availability, and performance vary by operator and region

• Data Transmission

- LTE-FDD: up to 150 Mbps DL / 50 Mbps UL
- LTE-TDD: up to 130 Mbps DL / 30 Mbps UL
- Direct-to-Cell: data rates vary by operator, satellite coverage, service configuration, and network conditions

Global Navigation Satellite System (GNSS)

- Embedded GNSS Engine
- Supports GPS, GLONASS, BeiDou, Galileo, and QZSS

Serial Port (RS-232/RS-422/RS-485)

- DNP3/TCP, Modbus/TCP, Telnet Server, SSH Server, UDP Server/ Client, TCP Server/ Client

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
- Universal Plug and Play (UPnP) compliant
- Dynamic Domain Name System (DDNS)
- Virtual server and DMZ
- SNTP, DNS relay, IGMP proxy and IGMP snooping, MLD proxy and MLD snooping for video service

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

Dyanmic Routing

- BGP and OSPF

VPN/Tunneling

- IPsec, OpenVPN, PPTP, L2TP VPN Tunneling
- OpenVPN VPN Tunneling
- PPTP VPN Tunneling
- L2TP VPN Tunneling
- GRE (up to 8 tunnels)
- Embedded PPTP / L2TP / IPsec / OpenVPN Client and Server
- IKE Key Management
- MPPE Encryption for PPTP
- IPsec DES, 3DES and AES encryption

Utility Applications

- 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

- Quick Installation Wizard
- Web-based GUI for remote and local management
- Firmware upgrade and configuration data upload and download via web-based GUI and over-the-air
- Supports DHCP server/client/relay
- TR-069 supports remote management
- BECentral® CloudEdge Management
- SNMP v1, v2, v3, MIB-I and MIB-II support
- Syslog monitoring
- SMS Control function for status and reboot

Hardware Specifications

Physical Interface

- Two LTE/D2C antenna connectors: Main / Diversity
- One GNSS antenna connector
- Ethernet LAN: 2-port Gigabit Interfaces auto-crossover (MDI/ MDI-X) switch
- Serial: DB8 Male x (2)
- Digital Input: 1x2 Terminal Block
- Console: 1x3 Terminal Block
- Dual SIM Card Slot (2FF)
- Reset button
- Power Connector: 1x3 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: 1.36lbs (0.62kg)

Power Requirements

- Input: DC 10V - 56V

Operating Environment

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

IP Rating

- IP50

Hardware Interfaces

