



## FX86E HIGHLIGHTS

- **Future-Ready:** 5G RedCap (3GPP R17) and LTE in one global SKU.
- **Pre-Certified:** Connect out-of-the-box with major carrier and regulatory certifications, reducing certification delays or costs.
- **Instant Connection:** AutoConnect and AutoSim deliver plug-and-play connectivity. Power up and you're connected—no module integration required.
- **Industrial Grade:** MIL-STD-810H rugged design with IP30, E-Mark, and SAE J1455 certifications for industrial environments and heavy-duty vehicles.
- **Secure & Manageable:** End-to-end security with secure boot and credential storage. Third-party FOTA via secure HTTPS.



## Future-Ready, Industrial-Grade 5G RedCap Connectivity Right Out of the Box

The FX86E is a future-ready, industrial-grade 5G RedCap modem that delivers instant connectivity right out of the box. Combining 5G RedCap (3GPP R17) and LTE in a single global SKU, the FX86E provides plug-and-play connectivity for industrial equipment and heavy-duty vehicles without the complexity and cost of module integration.

### OUT-OF-THE-BOX CONNECTIVITY

The FX86E eliminates traditional integration complexity with AutoConnect and AutoSim technologies. Pre-certified on major carriers and regulatory standards, simply power up the modem and you're connected. This plug-and-play approach is ideal for OEMs who want industrial-grade connectivity without engineering resources for module integration or carrier certification.

### READY NOW, BUILT TO LAST

The FX86E gives you the best of both worlds: 5G RedCap (3GPP R17) for future-ready deployments and LTE support for today's global 4G infrastructure. All in a single SKU with worldwide band support.

### INDUSTRIAL GRADE

The FX86E's rugged, compact housing meets MIL-STD-810H military-grade standards with IP30 protection, E-Mark and SAE J1455 certifications, and CB safety compliance (IEC62368-1)—suited for harsh industrial environments and heavy-duty vehicles. Low power consumption supports solar installations and battery-powered applications.

### PRIVATE NETWORKING

Deploy on public cellular or your own private network. CBRS and Anterix B106 support gives industrial organizations complete flexibility for secure, dedicated connectivity.

### EASY MANAGEMENT

OpenWRT web UI interface provides intuitive, browser-based setup and control for seamless device configuration and network management.

### SECURE

End-to-end security with authentication, network firewall, secure boot, and credential storage. Third-party FOTA via secure HTTPS gives you control with your own cloud infrastructure.

### TRUSTED RELIABILITY

The FX86E is powered by Semtech's EM8695 module backed by 30+ years of wireless expertise—proven technology from a supplier who understands industrial connectivity inside out.

For more information please visit [sierrawireless.com/FX86E](https://sierrawireless.com/FX86E).



**GLOBAL**

Technology 5G RedCap (Sub-6 Ghz) & LTE Cat-4

**FREQUENCY BANDS**

5G RedCap: 5G Sub-6 Ghz (FR1 1CC) n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n30, n38, n40, n41, n48, n66, n70, n71, n77, n78, n79

4G LTE (Cat-4 DL / Cat-3 UL) B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B30, B34, B38, B39, B40, B41, B42, B43, B48, B66, B70, B71, B106

**APPROVALS**

Regulatory FCC, PTCRB, IC, GCF, RED, RCM (Planned)

Telecom & Carrier Planned: AT&T, Verizon, T-Mobile, Telstra, DoCoMo, SoftBank, KDDI, Anterix

**POWER VOLTAGE**

DC 4.75V to 32V

**INTERFACES**

Ethernet 10/100 BASE-T RJ45

USB USB 2.0 Micro-USB

LEDs 1 signal LED, 1 user LED

SIM interface Nano SIM (4FF)

Cellular Antenna 5G/4G Adhesive Mount Puck Antenna - Optional

**MOUNTING OPTIONS**

Bracket for screw/wall and DIN rail mounting

**SERVICES**

Cloud Services Third-party FOTA via secure HTTPS

**DIMENSIONS**

Dimensions 82x60x32 mm including connectors

Weight 158g

**ENVIRONMENTAL**

Operating Temperature -30°C to +75°C (MIL-STD-810H, test methods 501.7, 502.7)

Humidity 95% relative humidity over a temperature range of +20°C to +60°C MIL-STD-810H (test methods 507.7)

Vibration and Shock MIL-STD-810H (test methods 503.7, 514.8 and 516.8) SAEJ1455 (Sec 4.10.4.2 and 4.11.3.4)

Vehicles E-Mark UN ECE Regulation No.10 Rev 7, CB IEC62368-1 and UL Listed SAEJ1455 (Sec 4.13.1, 4.13.2)

ESD 8KV contact discharge, 15KV air discharge

HAZARDOUS LOCATIONS Class 1 Division 2, Zone 2 (planned)

**About Semtech**

Semtech Corporation (Nasdaq: SMTC) is a high-performance semiconductor, IoT systems and cloud connectivity service provider dedicated to delivering high-quality technology solutions that enable a smarter, more connected and sustainable planet. Our global teams are committed to empowering solution architects and application developers to develop breakthrough products for the infrastructure, industrial and consumer markets.

To learn more about Semtech technology, visit us at [Semtech.com](https://www.semtech.com) or follow us on [LinkedIn](#) or [X](#).

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