



## Sierra Wireless® FX30 Octave™ IoT Gateway

### FX30 BENEFITS

- **Global & Scalable:** Pre-provisioned with SIM for global LTE connectivity. Pre-certified for global deployments.
- **Small & Rugged:** Purpose-built to fit into machines and infrastructure equipment, and meets harsh industrial environmental requirements.
- **Highly Programmable:** Enables secure data collection, data orchestration, actions, and edge-to-cloud integration via the Octave platform.
- **Extensible:** Comprehensive built-in interfaces to connect easily to any system, plus flexible hardware expansion.



FX30



FX30S

## Ruggedized, Industry-Certified IoT Gateway for Octave™ Platform

### SETTING A NEW STANDARD FOR IOT EMBEDDED PLATFORMS

The FX30 is the industry's smallest, most rugged programmable LTE cellular gateway. As part of an integrated, secure device-to-cloud platform, the FX30 enables rapid, scalable, and global IoT deployments for any connected machine or infrastructure.

### PROGRAMMABLE AND MANAGEABLE

The FX30 ships with Octave™, Sierra Wireless's all-in-one platform for connecting industrial assets to the cloud. Octave helps industrial companies scale from proof of concept to commercial deployment more easily than ever by letting them securely extract and orchestrate data from industrial equipment to cloud infrastructure, all while efficiently managing their connected machines.

Integrating device modules and gateways, wireless connectivity, and cloud APIs, Octave ensures you have the data you need, exactly when you need it. Providing a simple JavaScript framework, it enables powerful combinations of data processing rules both in the cloud and at the resource-constrained edge. With a single pane of glass to monitor, control, update and maintain connected edge devices and assets—including the lifecycle of the devices themselves, as well as their SIM connectivity—Octave empowers industrial companies to act on the data that matters most to them.

The FX30 is also available with the Legato® Open Source Linux platform.



### INDUSTRIAL GRADE

The FX30 provides superior performance in harsh environments with its small, rugged aluminum form factor. It meets MIL-STD-810 standard for vibration and mechanical shock, and maintains operation in extended temperatures from -30°C to +75°C, making it the ideal embeddable solution for any industrial machine.

FX30 is pre-certified for large deployments, meeting a comprehensive range of regulatory and industry standards worldwide.

### SCALABLE AND EXTENSIBLE

Offering unparalleled flexibility, the FX30 is available in both Ethernet and Serial variants, and supports an IoT Connector expansion slot to enable hardware extensions. The IoT Connector enables an unlimited range of sensors, and wired and wireless networks, such as Ethernet, Wi-Fi, Bluetooth, Zigbee, RS485, CANbus.

The FX30 offers best-in-class low power consumption, consuming less than 1W in idle mode and 2mW in ultra-low power mode, making it ideal for solar and battery powered applications.

The FX30 Octave includes a SIM pre-provisioned for global connectivity, providing LTE Cat-M1/NB1 LPWA connectivity with 2G fallback.

For more information please visit [sierrawireless.com/FX30](http://sierrawireless.com/FX30).

	FX30 LTE-M Global	FX30S LTE-M Global
<b>AIR INTERFACE</b>	LTE Cat-M1/NB1, EDGE, GSM, GPRS	
<b>FREQUENCY BANDS</b>		
<b>4G LTE</b>	B1, B2, B3, B4, B5, B8, B12, B13, B17, B18, B19, B20, B26, B28	
<b>3G UMTS/HSPA+</b>	-	
<b>2G EDGE/GSM/GPRS</b>	850, 900, 1800, 1900	
<b>APPROVALS</b>		
<b>Regulatory</b>	FCC/IC, CE&RoHS, REACH, RCM, Safety IEC60950-1, UL Listed, GCF, PTCRB, E-Mark	
<b>Telecom &amp; Carrier</b>	Sierra Wireless	
<b>POWER VOLTAGE</b>	DC 4.75V to 32V	
<b>POWER CONSUMPTION</b>		
<b>Ignition Off</b>	400 $\mu$ W	
<b>Ultra Low Power Mode</b>	2 mW	
<b>Idle mode</b>	1.2W	0.4W
<b>4G LTE max</b>	4.2W, burst 7.9W (USB at 110Mbps and Ethernet at 94Mbps)	3.2 W, burst 7.5W (USB at 110Mbps and Serial continuous)
<b>RADIO MODULE</b>	WP7702	
<b>APPLICATION PROCESSOR</b>		
<b>Processor</b>	ARM® Cortex™-A7	
<b>Core frequency</b>	1.3GHz	
<b>RAM (reserved for app processor)</b>	128MB	
<b>Flash (reserved for app processor)</b>	256MB (min 100,000 write cycles)	

	Specification
<b>INTERFACES</b>	
<b>Ethernet</b>	FX30 only: 10/100BASE-T RJ45
<b>UART</b>	FX30S only: Configurable RS232/RS485 Sub-D9
<b>USB</b>	USB V2.0 Micro-B connector
<b>LEDs</b>	1 signal LED, 1 user LED
<b>I/Os</b>	3 configurable I/Os
<b>Audio</b>	PCM (on IoT Connector)
<b>Push button</b>	For user app (GPIO)
<b>SIM interface</b>	2FF
<b>Cellular Antenna</b>	SMA
<b>GNSS Antenna</b>	SMA with active bias
<b>HARDWARE EXTENSION</b>	1xIoT Connector (1xUSB, 1xUART, 1xSPI, 1xI2C, 4xGPIO, 1xADC, 1xSDIO, 1xPCM)
<b>MOUNTING OPTIONS</b>	Bracket for screw/wall and DIN rail mounting
<b>LOCATION SERVICES</b>	A-GPS, GLONASS, GALILEO
<b>CONTROL OPTIONS</b>	AT Commands, Legato® shell, Legato® applications

	Specification
<b>EMBEDDED SOFTWARE</b>	
<b>Application Framework</b>	Octave platform or Legato® open source
<b>Linux Distribution</b>	Octave Platform based on Legato® Open-Source Linux
<b>DRIVERS</b>	USB driver for Linux, WIN7, WIN8
<b>CLOUD SERVICES</b>	Octave platform, FOTA Upgrades, Global Connectivity, Device and Embedded Apps Management
<b>DIMENSIONS</b>	75 x 60 x 32 mm excluding connectors; FX30: 82x60x32mm including connectors; FX30S: 86x60x32mm including connectors
<b>WEIGHT</b>	158g
<b>ENVIRONMENTAL</b>	
<b>Operational Temperature (Class B)</b>	-30°C to +75°C
<b>Humidity</b>	95% relative humidity over a temperature range of +20°C to +60°C
<b>Vibration and Shock</b>	Vibration spec: MIL-STD-810G, Method 514.6C, Category 4CWV (Composite Wheeled Vehicle); Mechanical shock spec: MIL-STD-810G, Method 516.6; Procedure I (Functional Shock)
<b>ESD</b>	8KV contact discharge, 15KV air discharge

#### About Sierra Wireless

Sierra Wireless (NASDAQ: SWIR) (TSX: SW) is an IoT pioneer, empowering businesses and industries to transform and thrive in the connected economy. Customers Start with Sierra because we offer a device-to-cloud solution, comprised of embedded and networking solutions seamlessly integrated with our IoT services. OEMs and enterprises worldwide rely on our expertise in delivering fully integrated solutions to reduce complexity, turn data into intelligence and get their connected products and services to market faster. Sierra Wireless has more than 1,400 employees globally and operates R&D centers in North America, Europe and Asia.

For more information, visit [www.sierrawireless.com](http://www.sierrawireless.com).

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