



Sierra Wireless® FX Series Programmable Modems

Programmable and Expandable Modem for M2M Applications

FX SERIES BENEFITS

- Unparalleled expandability
- Fully programmable in standard C/C++ with the Open AT Application Framework
- Supported by AirVantage for building powerful applications

The FX programmable modems offer unparalleled expansion possibilities in a durable, aluminum form-factor designed to operate in harsh conditions. Ideal for industrial applications, this plug-and-play solution brings global 2G or 3G connectivity to any M2M system.

Featuring a C/C++ application framework and a cloud-based device management service, the FX series allows you to simplify and accelerate your M2M deployment.

FXT009/FX100

The FXT009 supports quad-band EDGE while the FX100 provides penta-band HSPA+ connectivity with built-in GPS.

UNPARALLELED EXPANDABILITY

The FX series supports low power mode and comes standard with Audio, Digital I/O, Serial and USB interfaces.

Expand your capabilities with optional X-cards to add functionalities of your choice such as Ethernet-connectivity card FXTE02. Use available Sierra Wireless and third-party X-cards or simply develop your own.

ADVANCED SOFTWARE CAPABILITIES

The FX series features the Open AT® Application Framework to make software application development easier and less expensive. With a 10-year track, its software building blocks and tools are supported by a well-established ecosystem and a forum of an active developer community.

CLOUD SERVICES

- **Device Management:** With AirVantage® Management Service, a secure cloud-based device management application, any number of FX modems can easily be deployed, monitored and upgraded remotely.
- **Application Enablement Platform:** With AirVantage Platform, the FX series is the most versatile hardware platform to quickly integrate actionable machine information into backend systems and applications.

Sierra Wireless
FX SERIES
PROGRAMMABLE MODEMS

	FXT009	FX100
AIR INTERFACE	EDGE	HSPA+
FREQUENCY BANDS		
GSM/GPRS/EDGE	850/900/1800/1900 MHz	850/900/1800/1900
WCDMA		800/850/900/1900/2100
APPROVALS		
Regulatory	R&TTE, CE, GCF, FCC, IC, A-Tick, E-Mark, ICASA, UL, PTCRB	R&TTE, CE, GCF, FCC, IC, PTCRB, A-Tick
Carrier	AT&T, Rogers, Vodafone	
POWER VOLTAGE	DC 4.75V to 32V, 3A peak	DC 4.75V to 32V, 3.7A peak
POWER CONSUMPTION (AT 13.2V)		
Alarm	400 µA	1.25 mA
Standby and Idle	1.9 mA	1.75 mA
GSM/GPRS max	102 mA / 166 mA (GPRS class 10)	110 mA / 185 mA (GPRS class 10)
HSxPA max		243 mA
CPU PERFORMANCES		
Processor	ARM946 / DSP	ARM1136
Core frequency	104 MHz / 26 MHz	480 MHz
User MIPS available	87 MIPS	500 MIPS
AUDIO		
Analog audio	1 x speaker out - 1 x micro in	1 x speaker out - 1 x micro in
Digital audio	with expansion card	PCM
Codec	HR, FR, EFR, AMR	GSM: HR, FR, EFR, AMR, WCDMA: AMR
Quality	VDA2A	
Echo cancellation & noise reduction	✓ (high)	✓
DTMF	✓	✓
INTERFACES		
UART	12 (1 on internal X-card connector) RS 232 (Up to 921.6 Kbps)	12 (1 on internal X-card connector) RS 232 (Up to 921.6 Kbps)
USB	1 USB 2.0 Full Speed (12 Mbps)	1 USB 2.0 Fast Speed (480 Mbps)
SPI	2 on internal X-card connector	2 on internal X-card connector
I2C	1 on internal X-card connector	1 on internal X-card connector
ADC	1 on internal X-card connector	1 on internal X-card connector
DAC	1 on internal X-card connector	-
GPIO	2 (2,6V-15V) + 7 on internal X-card connector	2 (2,6V-15V) + 7 on internal X-card connector
RTC	✓	✓
Timers (HW, SW, Capture)	✓	✓
Interrupts pins	1 on internal X-card connector	1 on internal X-card connector
Flash LED output	Network	Network
PWM (Buzzer)	-	-
SIM interface	SIM socket (1,8V/3V)	SIM socket (1,8V/3V)
X-cards	✓	✓
Ethernet	10BASE-T IEEE 802.3 with optional X-card FXTE02 (operational temperature -30°C to +65°C)	10BASE-T IEEE 802.3 with optional X-card FXTE02 (operational temperature -30°C to +65°C)
ANTENNA DIVERSITY		✓
LOCATION SOLUTION	Third party X-card	GPSOne XTRA™ and Location Library
EMBEDDED SIM		✓
CONTROL OPTIONS	AT commands, C/C++ language	AT commands, C/C++ language
APPLICATION FRAMEWORK	Open AT®	Open AT®
CLOUD SERVICES	✓	✓
HOST OS COMPATIBILITY		
Windows® Mobile, CE, XP, 7, Vista	✓	✓
DEVICE DIMENSIONS	89 x 60 x 30 mm	89 x 60 x 30 mm
OPERATIONAL TEMPERATURE	-30°C to +75°C	-30°C to +75°C

About Sierra Wireless

Sierra Wireless is building the Internet of Things with intelligent wireless solutions that empower organizations to innovate in the connected world. We offer the industry's most comprehensive portfolio of 2G, 3G, and 4G embedded modules and gateways, seamlessly integrated with our secure cloud and connectivity services. OEMs and enterprises worldwide trust our innovative solutions to get their connected products and services to market faster.

For more information, visit www.sierrawireless.com.