

# Sierra Wireless AirPrime™ M2M Embedded Solutions

## A Complete Embedded Solution for Easy Connectivity

The seamless integration of hardware, software and services significantly simplifies and accelerates development of embedded M2M applications.

### CHOOSE YOUR WIRELESS MODULE

AirPrime™ Embedded Wireless Modules from Sierra Wireless offer you the ultimate choice for your cellular connectivity needs. From PCI Express MiniCards to surface-mount modules; from modem-only functionality to fully programmable devices; from 2G to 4G; from industrial to automotive applications - you can be sure there's an AirPrime product that is just right for your specific connectivity needs.

### DEVELOP YOUR EMBEDDED APPLICATION FASTER

Unique in the market, AirPrime Embedded Wireless Modules natively support a complete embedded application framework. The Open AT Application Framework consists of an M2M-specific operating system, a range of software libraries, and an integrated development environment based on Eclipse™.

### SIMPLIFY DEPLOYMENT AND OPERATION

AirPrime wireless modules can be remotely managed thanks to AirPrime Management Services, a comprehensive set of device management capabilities. In addition, to support creation of and integration to business applications, AirPrime modules can be connected to the AirVantage M2M Cloud Platform through the AirVantage Ready Agent.



### SIERRA WIRELESS M2M EMBEDDED:

- **Technology experience and leadership** across industries
- **Rugged, reliable wireless modules** for all types of M2M environments
- **Embedded application framework** for easy and fast application development
- **Management services** to remotely manage and upgrade your devices
- **Professional services** to streamline your development process
- **Operator certifications** and long standing relationships worldwide



**AirPrime™**

# Embedded Wireless Modules Product Overview

## A Unique Choice of Wireless Modules

The Sierra Wireless AirPrime family is the industry's broadest portfolio of wireless modules for mobile computing and M2M, and includes a module for every need:

**Automotive 1000:** The AR Series is specifically designed for automotive OEM applications, tolerating up to 1,000 thermal shock cycles. Available in form factor compatible 2G CDMA 1xRTT, 3G EV-DO Rev A and 3G HSPA versions.

**Integrated:** The WMP Series offers application processing and 2G connectivity integrated into a single device. BGA package with a large set of interfaces and an advanced application framework.

**Smart:** The Q and SL Series are programmable modules enabling shared processing. Footprint compatible 2G/3G GSM and CDMA modules with board to board connector (Q Series) or LGA package (SL Series).

**Extension:** The XM Series is a GPS module extension for the SL or Q Series.

**High-speed:** The MC Series is for high-speed networks, including 3G EV-DO, 3G HSPA+ and 4G LTE. Based on the PCI Express MiniCard standard with a USB 2.0 interface.

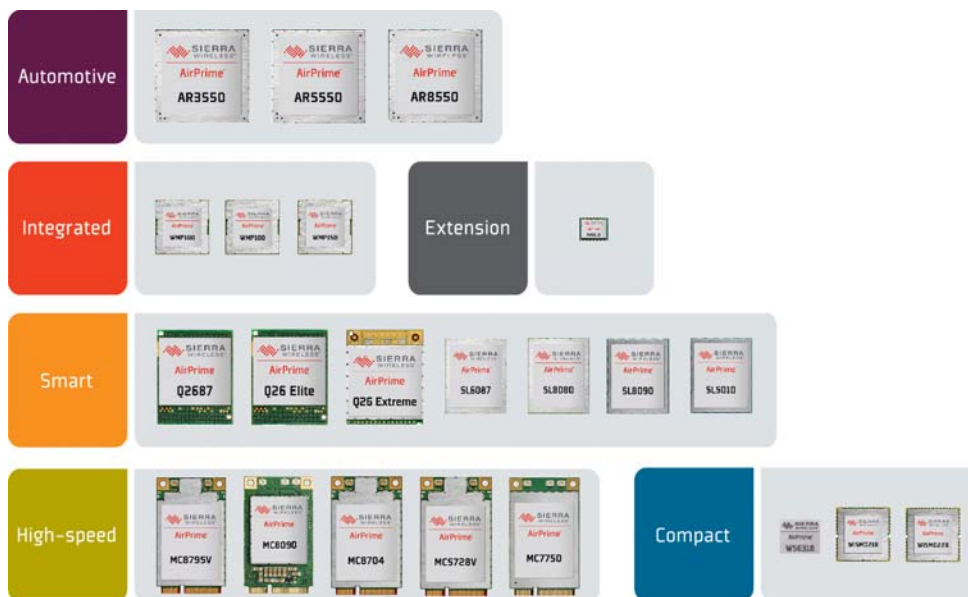
**Compact:** The WS Series provides essential M2M connectivity with highly compact 2G GSM modules, including the smallest module available on the market, the WS6318. LCC (WISMO2x8) or LGA package covered in conformal coating (WS6318) for great resistance.



### EMBEDDED SIM

Sierra Wireless' Embedded SIM solution removes the plastic from a conventional SIM card and embeds the silicon die inside the wireless module. Benefits include:

- Resistance to extreme temperatures, vibration and humidity
- Subscription portability and security
- Reduced size
- Simplified logistics
- Same warranty as the module itself.



AirPrime™

# Application Framework

## Simplify your M2M Application Development

The Sierra Wireless Open AT Application Framework is a complete software package for embedded M2M application development. It offers a range of readily available building blocks to accelerate the application development process and reduce total cost. It includes an operating system, a large set of libraries and a development tool.

### AN OPERATING SYSTEM DESIGNED FOR M2M

Open AT OS is the world's only operating system designed specifically for M2M. It natively provides wireless services (voice call, data call, SMS) and TCP/IP connectivity, and gives access to hardware resources for which the developer would otherwise need an extra processor.

It makes it possible to use an AirPrime wireless module as a standalone processor for simple applications, or as a co-processor for more complex systems. Developers can easily write applications in standard ANSI C/C++, optimized for real-time control and low-level services control. It features:

- Native APIs in ANSI C
- Event driven programming
- TCP/IP
- Pre-emptive multitasking

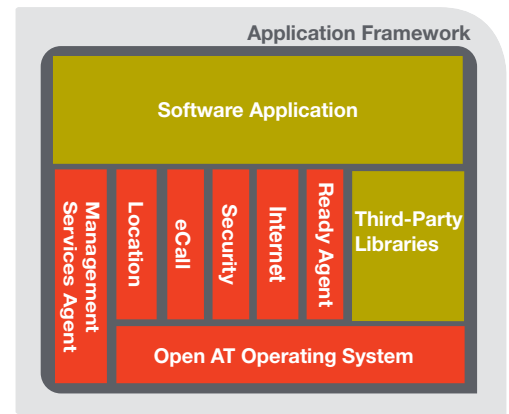
### A WIDE CHOICE OF LIBRARIES

Sierra Wireless offers a range of software libraries to easily add extra features and protocols or additional programming languages. Available libraries include:

- **Location:** Facilitates GPS integration with a power management feature, fast TTFB and assisted-GPS capability.
- **eCall InBand Modem:** Brings emergency call capability, standardized by 3GPP, to in-vehicle systems embedding modem functionality.
- **Security:** Protects your transactions and your data through SSL, a cryptographic engine and jamming detection.
- **TCP/IP and Internet:** Manages multiple UDP/TCP sockets, file transfer (FTP), email (POP3, SMTP), web services (HTTP) and MMS. IP routing features such as DHCP server, port forwarding, DNS proxy and NAT provide a cost-effective gateway solution.
- **Ready Agent:** Connects the modules to the AirVantage M2M Cloud Platform, a scalable and secure services platform with unique device management capabilities and advanced features.
- **Third-Party Libraries:** The WirelessIDEA library from Aplix Corporation enables developers to write their applications in Java.

### EASY-TO-USE DEVELOPMENT TOOL

Sierra Wireless Developer Studio is an integrated development environment for M2M applications, based on Eclipse™.



## AirPrime Management Services

AirPrime Management Services is a cloud-based device management solution which enables you to remotely **monitor** and **upgrade** AirPrime devices in the field through a web portal.

The user interface includes the possibility to create dashboards in order to easily manage devices in the field:

- Monitor key parameters and communication traffic
- Configure devices
- Remotely send AT commands

AirPrime Management Services also enables application software and firmware upgrades over-the-air, including the following features:

- Delta generation (download only the code that has changed, for faster downloads and reduced data volume)
- Upgrade for multiple devices
- Reports

Easy to deploy, secure and scalable, AirPrime Management Services are based on industry standards: OMA-DM and full IP architecture.



## Professional Services

Sierra Wireless supports you with extensive professional services:

### PRODUCT DESIGN

- Application code review
- Customer design review
- Customer product certification

### PRODUCT BUILD

- Tailored delivery
- Tailored product configuration

### AFTER SALES

- Extended warranty
- Module reconfiguration
- Out of warranty repair

For further company and product information, please visit [www.sierrawireless.com](http://www.sierrawireless.com) or contact [sales@sierrawireless.com](mailto:sales@sierrawireless.com)