

# Sierra Wireless AirPrime® Embedded Wireless Modules SL Series

## Future-Proof Your Connected Devices

AirPrime® SL Series offers smart connectivity for consumer and industrial applications. Its standard 25 x 30 mm LGA (Land Grid Array) package allows fully automated manufacturing for high-volume production.

Available in multiple air interfaces versions (EDGE, HSDPA, HSPA+, CDMA 1xRTT and EV-DO), the AirPrime SL Series presents an easy upgrade path to next-generation network technologies.

With its application framework and cloud-based device management services, the smart AirPrime SL Series accelerates your M2M deployment.

AirPrime SL Series modules have a solid track record in several M2M sectors such as transportation, energy, industrial, security, sales & payment, networking, field service and healthcare.

### AIRPRIME SL808X

The AirPrime SL808x offers HSDPA connectivity and quad-band GSM/GPRS/EDGE network access for global coverage. It natively supports the Open AT application framework and a comprehensive set of device management capabilities. Is it available with Embedded SIM as an option.

### AIRPRIME SL809X

The AirPrime SL809x is one of the smallest high-speed HSPA+ modules in the industry, featuring voice, antenna diversity, and GPS support. It includes quad-band GSM/GPRS/EDGE connectivity as well.

### AIRPRIME SL301X/SL501X

The AirPrime SL301x and SL501x offer dual-band CDMA 1xRTT and EV-DO connectivity with GPS and antenna diversity.

### AIRPRIME SL9090

The AirPrime SL9090 is a multimode HSPA+/EV-DO module designed to operate on the main mobile networks in North America with a single product reference. It features GPS and supports quad-band GSM/GPRS/EDGE.



#### KEY BENEFITS

- High scalability for new network technologies
- A single small form factor to address multiple air interfaces for global deployment
- Resists industrial environments and extended temperatures
- Available with an application framework to simplify software development
- Remote upgrade and monitoring via a cloud platform

Smart



# Sierra Wireless AirPrime® Embedded Wireless Modules SL Series

	SL808X	SL809X	SL301X/SL501X	SL9090
<b>AIR INTERFACE</b>				
	GSM/GPRS/EDGE/HSDPA	GSM/GPRS/EDGE/HSPA+	CDMA 1xRTT EV-DO Rev A (SL501x)	GSM/GPRS/EDGE/HSPA+/ EV-DO Rev A/ CDMA 1xRTT
<b>FREQUENCY BANDS</b>				
<b>GSM/GPRS/EDGE WCDMA</b>	850/900/1800/1900 MHz SL8080/81: 850/1900 MHz SL8082/83: 900/2100 MHz SL8084/85: 800/850/2100 MHz	850/900/1800/1900 MHz SL8090: 800/850/1900/2100 MHz SL8092: 900/2100 MHz		850/900/1800/1900 MHz 800/850/1900/2100 MHz
<b>CDMA</b>			800/1900 MHz	800/1900 MHz
<b>APPROVALS</b>				
<b>Regulatory</b>	SL8080/81: FCC, IC, GCF-CC, PTCRB SL8082/83: R&TTE, CE, GCF-CC SL8084/85: CE, GCF-CC, PTCRB, A-Tick compliant	FCC, IC, CE, GCF-CC, PTCRB, A-Tick compliant	FCC	FCC, IC, PTCRB, A-Tick compliant
<b>Carrier</b>	SL8080/81: AT&T, Rogers SL8084/85: Telstra	AT&T, NCC, NTT DoCoMo	Verizon, Sprint	AT&T, Verizon, Sprint, NTT DoCoMo
<b>CURRENT CONSUMPTION</b>				
<b>Alarm (leakage only)</b>	35 µA*	<50 µA*		<50 µA*
<b>Standby and Idle (Sleep)</b>	<2 mA	<2 mA	3.5mA	<2 mA
<b>GSM/GPRS max</b>	2.2A peak @3.6V (+32dBm) 500mA average	2.3A peak @3.6V (+32dBm) 730mA average		2.3A peak @3.6V (+32dBm) 730 mA average
<b>EVDO REV A max</b>			1000mA	1000mA
<b>HSxPA max</b>	570mA @ 3.6V (+23dBm)	682mA @ 3.6V (+23dBm)		1A @ 3.6V (+23dBm)
<b>CPU PERFORMANCE</b>				
<b>Processor</b>	ARM926EJS / QDSP4	ARM1136JS	ARM926EJS	ARM1136JS
<b>Core frequency</b>	184 MHz / 92 MHz	300MHz	192MHz	300MHz
<b>User MIPS Available</b>	✓	✓	✓	✓
<b>AUDIO</b>				
<b>Analog Audio</b>	1x micro in/1x speaker out			
<b>Digital Audio</b>	PCM	PCM (SL8090/92) /I2S (SL8092)	PCM (SL3010/SL5010)	PCM / I2S
<b>Codec</b>	FR, EFR, HR, AMR, QCELP-13K	FR, EFR, HR, AMR	FR, EFR, HR (SL3010/SL5010)	FR, EFR, HR, AMR
<b>Quality</b>				
<b>Echo cancellation &amp; Noise reduction</b>	✓	✓	✓	✓
<b>DTMF</b>	✓	✓	✓	✓
<b>INTERFACES</b>				
<b>UART</b>	1 x 4 Wire or 8 wire	1 x 4 Wire or 8 Wire	1 x 4 Wire	1 x 4 Wire or 8 Wire
<b>USB</b>	1 x USB 2.0 High Speed	1 x USB 2.0 High Speed	1 x USB 2.0 High Speed	1 x USB 2.0 High Speed
<b>SPI</b>	1 x 4-Wire	1 x 4-Wire		1 x 4-Wire
<b>I2C</b>	1			
<b>ADC</b>			2	
<b>GPIO</b>	Up to 5	Up to 3	Up to 5	Up to 4
<b>RTC</b>				
<b>Timers (HW, SW, Capture)</b>				
<b>Interrupts Pins</b>				
<b>Flash LED Output</b>	1	1	1	1
<b>PWM (Buzzer)</b>	1	1	1	1
<b>Tx Burst indicator</b>		1		1
<b>SIM interface</b>	1.8/3V	1.8/3V	1.8V/3V	1.8V/3V
<b>ANTENNA DIVERSITY</b>		✓	✓	✓
<b>LOCATION SOLUTION</b>				
	gpsOne	gpsOneXTRA	gpsOne	gpsOneXTRA
<b>EMBEDDED SIM</b>	Optional			
<b>MANAGEMENT SERVICES</b>	✓			
<b>CONTROL OPTIONS</b>	AT commands, C/C++ language	AT commands	AT commands, CnS	AT commands, QMI
<b>APPLICATION FRAMEWORK</b>	Open AT			
<b>INTERNET SERVICES</b>	TCP/UDP/FTP/HTTP/SMTP/POP3/SNMP/SSL	TCP/UDP	TCP/UDP	TCP/ UDP
<b>DRIVERS</b>	Android, Linux, Windows CE 6.0, Windows Mobile 6.5	Android, Linux, Windows CE 6.0, Windows Mobile 6.5	Windows CE 6.0, Windows Mobile 6.5	Android, Windows CE 6.0, Windows Mobile 6.5, Linux SDK
<b>DEVICE DIMENSIONS</b>	25 x 30 x 2.35 mm	25 x 30 x 2.35 mm	25 x 30 x 2.35 mm	25 x 30 x 2.35 mm
<b>TEMPERATURE RANGE</b>	-40°C to +85°C**	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C

\* Power mode in Alarm Mode can be reduced to less than 1µA with external design.

\*\* Except AirPrime SL8081/83/85. Contact Sierra Wireless for more information.