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 SL6087 – *ELECTED "BEST 2G MODULE"*

Elected "Best 2G Module" by the GSMA, the AirPrime SL6087 is a quad-band EDGE module which natively supports the Open AT application framework and a comprehensive set of device management capabilities. It is available with Embedded SIM as an option.

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 adress 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

	SL6087	SL808X	SL809X	SL301X/SL501X	SL9090
AIR INTERFACE					
	GSM/GPRS/EDGE	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
FREQUENCY BANDS					
GSM/GPRS/EDGE	850/900/1800/1900 MHz	850/900/1800/1900 MHz	850/900/1800/1900 MHz		850/900/1800/1900 MHz
WCDMA		SL8080/81: 850/1900 MHz SL8082/83: 900/2100 MHz SL8084/85: 800/850/2100 MHz	SL8090: 800/850/1900/2100 MHz SL8092: 900/2100 MHz		800/850/1900/2100 MHz
CDMA				800/1900 MHz	800/1900 MHz
APPROVALS					
Regulatory	R&TTE, CE, GCF-CC, FCC, PT-CRB, China RTE, ICASA, Anatel	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
Carrier	AT&T, Vodafone	SL8080/81: AT&T, Rogers SL8084/85: Telstra	AT&T, NCC, NTT DoCoMo	Verizon, Sprint	AT&T, Verizon, Sprint, NTT DoCoMo
CURRENT CONSUMPTION					
Alarm (leakage only)	10.4 µA*	35 µA*	<50 µA*		<50 µA*
Standby and Idle (Sleep)	1.9 mA	<2 mA	<2 mA	3.5mA	<2 mA
GSM/GPRS max	1.5mA peak @3.6V 418mA average	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
EVDO REV A max				1000mA	1000mA
HSxPA max		570mA @ 3.6V (+23dBm)	682mA @ 3.6V (+23dBm)		1A @ 3.6V (+23dBm)
CPU PERFORMANCE					
Processor	ARM946 / DSP	ARM926EJS / QDSP4	ARM1136JS	ARM926EJS	ARM1136JS
Core frequency	26-104 MHz	184 MHz / 92 MHz	300MHz	192MHz	300MHz
User MIPS Available	✓	✓	✓	✓	✓
AUDIO					
Analog Audio	1x micro in/1x speaker out	1x micro in/1x speaker out			
Digital Audio	PCM	PCM	PCM (SL8090/92) /I2S (SL8092)	PCM (SL3010/SL5010)	PCM / I2S
Codec	FR, EFR, HR, AMR	FR, EFR, HR, AMR, QCELP-13K	FR, EFR, HR, AMR	FR, EFR, HR (SL3010/SL5010)	FR, EFR, HR, AMR
Quality	VDA2A				
Echo cancellation & Noise reduction	✓	✓	✓	✓	✓
DTMF	✓	✓	✓	✓	✓
INTERFACES					
UART	1 x 4 Wire and 1 x 8 Wire	1x 4 Wire or 8 wire	1x 4 Wire or 8 Wire	1 x 4 Wire	1 x 4 Wire or 8 Wire
USB	1 x USB 2.0 Full Speed	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
SPI	1 x 4-Wire	1 x 4-Wire	1 x 4-Wire		1 x 4-Wire
I2C	1	1			
ADC	2			2	
GPIO	Up to 26	Up to 5	Up to 3	Up to 5	Up to 4
RTC	1				
Timers (HW, SW, Capture)	1				
Interrupts Pins	2				
Flash LED Output	1	1	1	1	1
PWM (Buzzer)	1	1	1	1	1
Tx Burst indicator	1		1		1
SIM interface	1.8/3V	1.8/3V	1.8/3V	1.8V/3V	1.8V/3V
ANTENNA DIVERSITY					
			✓	✓	✓
LOCATION SOLUTION					
	AirPrime XM0110 GPS module and Location Library	gpsOne	gpsOneXTRA	gpsOne	gpsOneXTRA
EMBEDDED SIM					
	Optional	Optional			
MANAGEMENT SERVICES					
	✓	✓			
CONTROL OPTIONS					
	AT commands, C/C++ language	AT commands, C/C++ language	AT commands	AT commands, CnS	AT commands, QMI
APPLICATION FRAMEWORK					
	Open AT	Open AT			
INTERNET SERVICES					
	TCP/UDP/FTP/HTTP/SMTP/POP3/SNMP/SSL	TCP/UDP/FTP/HTTP/SMTP/POP3/SNMP/SSL	TCP/UDP	TCP/UDP	TCP/ UDP
DRIVERS					
		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
DEVICE DIMENSIONS					
	25 x 30 x 2.65 mm	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
TEMPERATURE RANGE					
	-40°C to +85°C	-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.

SIERRA WIRELESS® | AirPrime®