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 OpenAT



The AirPrime SL808x offers HSDPA connectivity and guad-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



COMMOPRISEDEM COMMOPRISED	AIR INTERFACE	SL808X	SL809X	SL301X/SL501X	SL9090
SECURION	THE INTERCEMENT	GSM/GPRS/EDGE/HSDPA	GSM/GPRS/EDGE/HSPA+		GSM/GPRS/EDGE/HSPA+/ EV- DO Rev A/ CDMA 1xRTT
MAPPROVINCE SLESSIBLE FLOC. IC. GEF-COL CEL C.	GSM/GPRS/EDGE	SL8080/81: 850/1900 MHz SL8082/83: 900/2100 MHz	SL8090: 800/850/1900/2100 MHz		850/900/1800/1900 MHz
REGULATORY				800/1900 MHz	800/1900 MHz
Carrier SL-SB008/1-78T, Popers ATR, No.C., NTT Do.CoMo Mercon, Sprint, NTT Do.CoMo Do.		PTCRB SL8082/83: R&TTE, CE, GCF-CC SL8084/85: CE, GCF-CC,		FCC	
Marm (lakage only) Si Ju^* Si	Carrier	SL8080/81: AT&T, Rogers	AT&T, NCC, NTT DoCoMo	Verizon, Sprint	
Standby and Idle (Skep)	CURRENT CONSUMPTION				
GSMIPRS max 2A3 peak 83 6V (+328 dBm) (1928 dBm	Alarm (leakage only)	35 μA*	<50 μA*		<50 μA*
SONUMEN SONUM Average SONUM Average SONUM Average TOOMMA TOOMMA	Standby and Idle (Sleep)			3.5mA	
### BYA max	GSM/GPRS max				
Mary	EVDO REV A max	oodiin average	routin average	1000mA	
Processor		570mA @ 3.6V (+23dBm)	682mA @ 3.6V (+23dBm)	•	
Core fingsuency 184 MHz / 92 MHz 300MHz 192MHz 300MHz AUDIO AUDIO Core PCM / 2S Core Core Core Core Core Core PCM / 2S Core Core <t< td=""><td>CPU PERFORMANCE</td><td></td><td></td><td></td><td></td></t<>	CPU PERFORMANCE				
User MID Audio	Processor	ARM926EJS / QDSP4	ARM1136JS	ARM926EJS	ARM1136JS
ADDIO		184 MHz / 92 MHz	300MHz	192MHz	300MHz
Analog		✓	✓	✓	✓
Option PCM PCM (SL2009/32) / 2/S (SL809/22) PCM (SL2010/SL5010) PCM / IZS Codec FR, EFR, HR, AMR, OCELP-13K FR, EFR, HR, AMR FR, EFR, HR, SL3010/SL5010) PCM / IZS Codec codec FR, EFR, HR, AMR FR, EFR, HR, AMR FR, EFR, HR, SL3010/SL5010) PCM / IZS Concentration of Monte of Miles 1 x 4 Wire x 4 Wire x 4 Wire x 4 Wire DITERTACES USB 1 x 4 Wire or 8 Wire 1 x 4 Wire 1 x 4 Wire 1 x 4 Wire 1 x 4 Wire					
Codec FR, EFR, HR, AMR, OCELP-13K FR, EFR, HR, AMR FR, EFR, HR, SL3010/SL5010) FR, EFR, HR, AMR Quality Cho cancellation & Noise reduction V <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
Quality				*	
Echo cancellation & Noise reduction		FR, EFR, HR, AMR, QCELP-13K	FR, EFR, HR, AMR	FR, EFR, HR (SL3010/SL5010)	FR, EFR, HR, AMR
NTERFACES					_
NTERFACES UART		•	•	•	
N. 4 Wire or 8 wire 1x 4		✓	✓	✓	✓
USB 2.0 High Speed		1 v 4 Mine on Queino	1 v 4 Mino on 9 Mino	1 × 4 Mire	1 v 4 Wire or 9 Wire
SPI 1 x 4-Wire 1 x 4-Wire 1 x 4-Wire I2C 1 ADC 1 2 GPIO Up to 5 Up to 3 Up to 5 Up to 4 RTC Timers (HW, SW, Capture) Up to 4 Interrupts Pins Up to 3 Up to 5 Up to 4 Flash LED Dutput 1 2 2 2 2 2 2 2 2 2 2				•	
Page				1 X USB 2.0 High Speed	
ADC Opto 10			1 X 4-Wile		1 X 4-WIII 6
GP10 Up to 5 Up to 3 Up to 5 Up to 4 RTC Timers (FW, SW, Capture) Interrupts Pins Int				2	
RTC		Un to 5	Up to 3	•	Un to 4
Timers (HW, SW, Capture)		- Op 10 0	0) 00	- Op 10 0	- Op 10 4
Interrupts Pins					
Flash LED Output					
PWM (Buzzer) 1 2 3 2 3 3 3 3 3 3 3 4 3 4 4 2 3 4 2 2 3 2 2 4 2 <		1	1	1	1
SIM interface		1	1	1	1
ANTENNA DIVERSITY LOCATION SOLUTION ✓<	Tx Burst indicator		1	•	1
CCATION SOLUTION gpsOne	SIM interface	1.8/3V	1.8/3V	1.8V/3V	1.8V/3V
LOCATION SOLUTION gpsOne gpsOneXTRA gpsOne gpsOneXTRA EMBEDDED SIM MANAGEMENT SERVICES ✓ CONTROL OPTIONS AT commands, C/C++ language AT commands AT commands, CnS AT commands, QMI APPLICATION FRAMEWORK TOP/UDP/FTP/HTTP/SMTP/ POP3/SNMP/SSL TCP/UDP TCP/UDP TCP/UDP TCP/UDP TCP/UDP TCP/UDP Android, Linux, Windows CB 6.0, Windows Mobile 6.5 Android, Linux, Windows CB 6.0, Windows Mobile 6.5 Mindows Mobile 6.5 Windows CB 6.0, Windows CB 6.0, Windows Mobile 6.5 Android, Windows CB 6.0, Windows CB 6.0, Windows Mobile 6.5 Android, Windows Mobile 6.5 Android, Windows CB 6.0, Windows Mobile 6.5 Android, Windows Mobile 6.5	ANTENNA DIVERSITY				
EMBEDDED SIM CPUIDP/FTP/HTTP/SMTP/ POP3/SNMP/SSL FCP/UDP POP3/SNMP/SSL TCP/UDP POP3/SNMP/SSL TCP/UDP POP3/SNMP CE 6.0, Windows Mobile 6.5 Android, Linux, Windows CE 6.0, Windows Mobile 6.5 Android, Windows CE 6.0, Windows CE 6.0, Windows Mobile 6.5 Windows CE 6.0, Windows CE 6.0, Windows CE 6.0, Windows CE 6.0, Windows Mobile 6.5 Windows CE 6.0, Windows CE 6.0, Windows CE 6.0, Windows Mobile 6.5 Vindows CE 6.0, Windows CE 6.0, Windows CE 6.0, Windows Mobile 6.5 Vindows CE 6.0, Windows CE 6.0, Windows Mobile 6.5 Vindows CE 6.0, Windows CE 6.0, Windows Mobile 6.5 Vindows CE 6.0, Windows CE 6.0, Windows Mobile 6.5 Vindows CE 6.0, Windows CE 6.0, Windows Mobile 6.5 Vindows CE 6.0, Windows CE 6.0, Windows Mobile 6.5 Vindows CE 6.0, Windows CE 6.0, Windows Mobile 6.5 Vindows CE 6.0, Windows Mobile 6.5 Vindows CE 6.0, Windows Mobile 6.5 Vindows CE 6.0, Windows CE 6.0, Windows Mobile 6.5 Vindows CE 6.0, Windows CE 6.0, Win			✓	✓	✓
EMBEDDED SIM Optional MANAGEMENT SERVICES AT commands, C/C++ language AT commands AT commands, CnS AT commands, QMI APPLICATION FRAMEWORK Open AT INTERNET SERVICES TCP/UDP/FTP/HTTP/SMTP/ POPS/SNMP/SSL DRIVERS Android, Linux, Windows CE 6.0, Windows Mobile 6.5 Mindows Mobile 6.5 DEVICE DIMENSIONS 25 x 30 x 2.35 mm 25 x 30 x 2.35 mm EMPERATURE RANGE	LOCATION SOLUTION				
MANAGEMENT SERVICES		gpsOne	gpsOneXTRA	gpsOne	gpsOneXTRA
MANAGEMENT SERVICES	EMBEDDED SIM				
MANAGEMENT SERVICES CONTROL OPTIONS AT commands, C/C++ language AT commands AT commands, CnS AT commands, QMI APPLICATION FRAMEWORK Open AT INTERNET SERVICES TCP/UDP/FTP/HTTP/SMTP/ PCP/SMMP/SSL DRIVERS Android, Linux, Windows CE 6.0, Windows CE 6.0, Windows Mobile 6.5 DEVICE DIMENSIONS 25 x 30 x 2.35 mm EMPERATURE RANGE		Optional			
CONTROL OPTIONS AT commands, C/C++ language AT commands AT commands, CnS AT commands, QMI APPLICATION FRAMEWORK Open AT INTERNET SERVICES TCP/UDP/FTP/HTTP/SMTP/ PCP/SMMP/SSL DRIVERS Android, Linux, Windows CE 6.0, Windows CE 6.0, Windows CE 6.0, Windows Mobile 6.5 DEVICE DIMENSIONS 25 x 30 x 2.35 mm 25 x 30 x 2.35 mm AT commands, CnS AT commands, QMI AT commands, CnS AT commands, CnS AT commands, CnS AT commands, QMI AT commands, CnS AT commands, CMS AT commands, CnS AT commands, CMS AT commands, CMS AT commands, QMI AT commands, CnS AT commands, CMS AT commands,	MANAGEMENT SERVICES.				
CONTROL OPTIONS AT commands, C/C++ language AT commands AT commands, CnS AT commands, QMI APPLICATION FRAMEWORK Open AT INTERNET SERVICES TCP/UDP/FTP/HTTP/SMTP/ POP3/SNMP/SSL TCP/UDP TCP/UDP TCP/UDP TCP/UDP TCP/UDP TCP/UDP TCP/UDP TCP/UDP DEVICE DIMENSIONS Android, Linux, Windows CE 6.0, Windows Mobile 6.5 Mindows Mobile 6.5 Windows Mobile 6.5 Windows Mobile 6.5 Windows Mobile 6.5 S x 30 x 2.35 mm 25 x 30 x 2.35 mm		✓			
AT commands, C/C++ language	CONTROL OPTIONS				
APPLICATION FRAMEWORK		AT commands, C/C++ language	AT commands	AT commands, CnS	AT commands, QMI
NTERNET SERVICES TCP/UDP/FTP/HTTP/SMTP/ POP3/SNMP/SSL	APPLICATION FRAMEWORK				
TCP/UDP/FTP/HTTP/SMTP/ POP/SNMP/SSL		Open AT			
DRIVERS Android, Linux, Windows CE 6.0, Windows Mobile 6.5 Android, Linux, Windows CE 6.0, Windows CE	INTERNET SERVICES		TCP/UDP	TCP/UDP	TCP/ UDP
Android, Linux, Windows CE 6.0, Windows CE 6.0, Windows CE 6.0, Windows CE 6.0, Windows Mobile 6.5 DEVICE DIMENSIONS 25 x 30 x 2.35 mm	DRIVERS	. C7 O/OININI /OOL			
Windows Mobile 6.5 Windows Mobile 6.5 Mobile 6.5 dows Mobile 6.5 Linux SDK DEVICE DIMENSIONS 25 x 30 x 2.35 mm TEMPERATURE RANGE		Android, Linux, Windows CE 6.0,	Android, Linux, Windows CE 6.0,	Windows CE 6.0, Windows	Android, Windows CE 6.0, Win-
25 x 30 x 2.35 mm TEMPERATURE RANGE	DELUCE DIVERSE	Windows Mobile 6.5		Mobile 6.5	
TEMPERATURE RANGE	DEVICE DIMENSIONS				
	TEMPERATURE BANCE	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
-40°C to +85°C -40°C to +85°C -40°C to +85°C	TEMPERATURE RANGE	4000 to 10500**	40°0 ±- +05°0	4000 + 0500	4000 to 10500
		-40°C to +85°C**	-4U°C to +85°C	-40°C to +85°C	-40°C to +85°C

 $^{^{\}star}$ Power mode in Alarm Mode can be reduced to less than 1 μA with external design.



 $^{^{\}star\star}$ Except AirPrime SL8081/83/85. Contact Sierra Wireless for more information.