

Sierra Wireless AirPrime™ Wireless Embedded Modules Q Series

A Single Form Factor for Multiple Technologies

Conceived for rapid mounting in electronic machine-to-machine equipment, the Sierra Wireless AirPrime Q Series of intelligent embedded modules allows you to make one single product design which can communicate on any cellular protocol, anywhere around the world. All AirPrime Q Series intelligent embedded modules are footprint compatible to smooth product development and simplify upgrading.

Choose an AirPrime Q Series intelligent embedded module when you need one or more of the following:

- Programmable capabilities*
- Multi-standard wireless
- Future-proof bearer evolution
- A field replaceable product

In addition, any AirPrime Q Series modules that support Open AT® include an embedded TCP/IP stack that can be controlled with simple AT commands.

AIRPRIME Q26 EXTREME

The dual-mode 2G/3G/3G+ AirPrime Q26 Extreme supports peak data rates up to 7.2 Mbps HSDPA and 2 Mbps HSUPA with automated 2G/3G handover.

AIRPRIME Q26 ELITE

The Q26 Elite features the Qualcomm QSC6055 chipset and integrates Qualcomm gpsOne® technology, making it uniquely suited for fleet management and tracking applications with E911 requirements. It supports an extended temperature range of -40°C to +85°C.

AIRPRIME Q2687

With an extended temperature range of -40°C to +85°C, the Q2687 intelligent embedded module offers a wide range of interfaces including USB, UART, SPI and a parallel data bus, as well as data bearers up to EDGE. Certified for use in the North American market.

AIRPRIME Q2686

Equipped with on-board audio recording facilities, the Q2686 is well suited for alarm systems and IVR (Interactive Voice Response) product designs. It also supports an extended temperature range of -40°C to +85°C.

EMBEDDED SIM

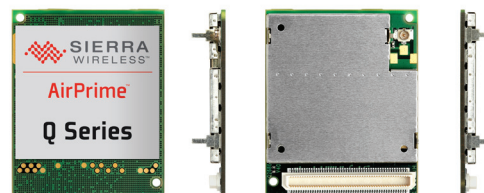
All 3GPP AirPrime Q Series products are available with Embedded SIM as an option. Sierra Wireless's Embedded SIM solution removes the plastic from a conventional SIM card and embeds the silicon die inside the intelligent embedded module.

* 3GPP versions only



KEY BENEFITS:

- Industrial board-to-board connector for easy integration
- Form-factor compatibility
- High-speed data transmission on any cellular network
- Software designed for M2M
- Remote monitoring and upgrade
- European Union's RoHS compliant
- Manufactured by ISO/TS 16949-certified OEM



AirPrime™

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	Q2686	Q2687	Q26 Extreme	Q26 Elite
AIR INTERFACE				
	GSM/GPRS	GSM/GPRS/EDGE	HSDPA 7.2 Mbps HSUPA 2 Mbps	CDMA 1xRTT
FREQUENCY BANDS				
GSM/GPRS/EDGE	850/900/1800/1900 MHz	850/900/1800/1900 MHz	850/900/1800/1900 MHz	
WCDMA			850/1900/2100 MHz	
CDMA 1xRTT				800/1900 MHz
APPROVALS				
Regulatory	R&TTE, CE, GCF, FCC, PTCRB, China	R&TTE, CE, GCF, FCC, PTCRB, China	R&TTE, CE, GCF, FCC, PTCRB, China	FCC, IC, CDG 1&2
Carrier		AT&T		
POWER				
Alarm	17uA	17uA	17uA	
Standby and Idle	2.5mA	2.5mA	2.5mA	5mA
GSM/GPRS max	400mA max GPRS class 10	400mA max GPRS class 10	600mA max GPRS class 10	
HSxPA max			820mA max; HSDPA full power	
CPU PERFORMANCES				
Processor	ARM946 / DSP	ARM946 / DSP	ARM946 / DSP	ARM9
Core frequency	26-104 MHz	26-104 MHz	26-104 MHz	192 MHz
User MIPS available	87 MIPS	87 MIPS	87 MIPS	
I/O voltage	1V8-2V8	1V8-2V8	1V8-2V8	1V8-2V8
AUDIO				
Analog audio	2 x speaker out -2 x micro in	2 x speaker out -2 x micro in	2 x speaker out -2 x micro in	2 x speaker out -2 x micro in
Digital audio	✓	✓	✓	
Codec	HR, FR, EFR, AMR	HR, FR, EFR, AMR	GSM: HR, FR, EFR, AMR WCDMA: AMR	EVRC/QCELP/EVRC-B
Quality	VDA2A	VDA2A	VDA2A	
Echo cancellation & noise reduction	✓	✓	✓	✓
DTMF	✓	✓	✓	✓
INTERFACES				
UART	2	2	2	2
USB	USB 2.0 Full Speed (12 Mbps)	USB 2.0 Full Speed (12 Mbps)	USB 2.0 Full Speed (12 Mbps)	Device 2.0 (Full Speed)
SPI	2	2	2	
I2C	1	1	1	1
ADC	2	2	2	2
DAC	1	1	1	1
GPIO	Up to 44	Up to 44	Up to 45 GPIO's	Up to 20*
RTC	✓	✓	✓	✓
Timers (HW, SW, Capture)	✓	✓	✓	n/a
Interrupts pins	2	2	3	n/a
Flash LED output	1	1	1	1
PWM (Buzzer)	1	1	1	1
Keyboard interface	5x5	5x5	5x5	5x5
SIM interface	1.8V/3V	1.8V/3V	SIM and U-SIM	RUIM
ANTENNA DIVERSITY				
			✓	
LOCATION SOLUTION				
	AirPrime XM0110 GPS module and Location Library	AirPrime XM0110 GPS module and Location Library	AirPrime XM0110 GPS module and Location Library	gpsOne
EMBEDDED SIM				
	✓	✓		
CONTROL OPTIONS				
	AT commands, C/C++ language; Lua script	AT commands, C/C++ language; Lua script	AT commands, C/C++ language; Lua script	AT commands
EMBEDDED APPLICATION FRAMEWORK				
	Open AT® OS	Open AT® OS	Open AT® OS	
MANAGEMENT SERVICES				
	✓	✓	✓	
TCP/IP				
	TCP/UDP/FTP/HTTP/SMTP/POP3/SNMP/SSL	TCP/UDP/FTP/HTTP/SMTP/POP3/SNMP/SSL	TCP/UDP/FTP/HTTP/SMTP/POP3/SNMP/SSL	TCP/UDP
DRIVERS				
Windows® Mobile/CE	✓	✓	✓	
Windows®XP/Vista	✓	✓	✓	✓
Windows® 7	✓	✓	✓	✓
Linux	✓	✓	✓	✓
DEVICE DIMENSIONS				
	32 x 40 x 4 mm	32 x 40 x 4 mm	32 x 40 x 6.55 mm	32 x 40 x 6.63 mm
TEMPERATURE				
	-40°C to +85°C	-40°C to +85°C	-30°C to +75°C	-40°C to +85°C

* Multiplexed