Sierra Wireless AirPrime™ Intelligent Embedded Modules MC Series

Air Interface Innovation

Sierra Wireless AirPrime™ MC Series embedded modules deliver reliable, high-quality mobile broadband connectivity with a variety of advanced air interfaces. The AirPrime MC Series can turn any mobile computing or mobile consumer device into a powerful communication tool.

The AirPrime MC Series modules are based on the PCI Express Mini Card standard with a USB 2.0 interface. They are designed to work with EV-DO Rev A, HSPA or HSPA+ networks. All our V modules support voice.

AIRPRIME MC5728V

The AirPrime MC5728V provides OEMs with EV-DO Rev A wireless data access at speeds up to 3.1 Mbps downlink and 1.8 Mbps uplink. It is compatible with widely available CDMA EV-DO Rel 0 and 1x networks.

AIRPRIME MC8700

Expand your product development into applications requiring higher bandwidth and take advantage of the fastest mobile broadband networks available worldwide, offering up to 21 Mbps download speeds with HSPA+ capabilities.

AIRPRIME MC8795V

Designed to provide support for new geographical markets, the HSPA quad-band (850/900/1900/2100 MHz) AirPrime MC8795V features data speeds up to 7.2 Mbps on the downlink and 5.76 Mbps on the uplink.

AIRPRIME MC8790/MC8790V/MC8792V

Wide area wireless data access at speeds up to 7.2 Mbps downlink and up to 5.76 Mbps uplink. These modules offer UMTS/HSPA and quad-band GSM/GPRS/EDGE network access for roaming on high-speed networks worldwide. In addition, antenna diversity improves fringe performance on global HSPA networks using the 850 (900 for the MC8792V), 1900, and 2100 MHz bands.

KEY BENEFITS:
- High performing, reliable modules
- Software and tools accelerate time to market
- Integration and verification support reduce costs and time to market
- Comprehensive SDK and enabling software available for creating a unique connection manager

Sierra Wireless Watcher™ Connection Management Software

Sierra Wireless Watcher makes Sierra Wireless modules easy to use, is highly configurable, and has many advanced network and modem debug capabilities. Watcher can be installed in a matter of minutes, lets users connect with one click connection, and reduces the number and duration of calls to your technical support team. It features a simple and intuitive user interface, and provides GPS management tools for location services.

Watcher is architected to fit the needs of PC OEMs and operators in different markets. It is available in multiple languages, it can have OEM and/or operator branding applied, and the user interface skin can be customized. Watcher comes with the AirCard Updates capability which delivers driver, Watcher, or firmware updates directly to the user as approved by the OEM and the operator.

All AirPrime MC Series embedded modules are compatible with Sierra Wireless Watcher connection management software.

Operating System Compatibility

Embedded Operating Systems

AirPrime MC Series embedded modules support Windows CE, Windows Mobile, and Embedded Linux operating systems.

For all these embedded operating systems, Sierra Wireless provides a complete Software Development Kit (SDK) for both CDMA and HSPA technologies. For Windows Mobile application development, a Radio Interface Layer (RIL) is also available. The SDK is complemented with a rich set of sample applications and utilities, as well as detailed documentation.

Personal Computer Operating Systems

Sierra Wireless is working closely with Microsoft to ensure all our current AirPrime MC Series embedded modules work with Windows XP, Windows Vista, Windows 7 and future OS revisions. Sierra Wireless also supports Windows 7 Mobile Broadband, a Windows 7 System Logo requirement, and was the first vendor mobile broadband to comply with Microsoft's Windows 7 Logo Kit requirements.

Standard support for Windows PC operating systems includes a Windows driver and SDK to enable you to create a unique connection manager if Watcher doesn't meet your specific needs.

Notebook to Network – Faster

For many years, Sierra Wireless's professional services team has worked with the world's leading OEMs integrating our wireless embedded modules into their products.

From RF test chambers, base station simulators, antenna design and modeling software to environmental test capabilities, our team can offer skills and support when and where you need it most.

- **Project management.** To guide the engineering effort and make the process run smoothly. We'll evaluate requirements, prepare a detailed plan, and manage the integration schedule from start to launch.

- **Sales and technical support training.** Classroom, webinar, and online self-study courses are all possible to train your sales, field-service and technical support teams.

- **Marketing communication services.** We bring support in product positioning, product launch strategy, industry market research, and public relations.

- **Design and integration services.** We anticipate the variety of challenges and hurdles our customers will encounter and will work with customers to ensure the right decisions are made, and integration goes smoothly.

- **Platform optimization and RF testing services.** Our first-class testing facilities can recreate demanding field conditions to test for sensitivity, RF desense, or throughput issues that will affect device performance.

- **Regulatory and type approvals services.** We help OEMs through approvals of each organization's technology-specific requirements, ensuring their products launch in a timely manner, and provide quick response to any issues that arise.

- **Operator certification services.** Sierra Wireless has commercialized products and established relationships with more than 80 operators in 40 countries worldwide.

- **Sierra Wireless Satimo Chambers.** Sierra Wireless has invested in two Satimo Stargate 64 RF testing and design chambers to provide fast and reliable RF measurements for any wireless system.

KEY BENEFITS:
- Reduced development time and efforts
- Leveraged expertise to minimize redesign and costs
- Increased sales and sell–through of your product line
- Greater success rate, less re–testing
- Increased margins through value–add services

SIERRA WIRELESS™ | AirPrime™

Sierra Wireless AirPrime™
Intelligent Embedded Modules
MC Series

	MC5728V	MC8790/8790V	MC8792V	MC8795V	MC8700
AIR INTERFACE					
	EVDO REV A	HSUPA	HSUPA	HSUPA	HSPA+
DATA SPEED					
Peak Download Rate	3.1 Mbps	7.2 Mbps	7.2 Mbps	7.2 Mbps	21.1 Mbps
Peak Upload Rate	1.8 Mbps	5.76 Mbps	5.76 Mbps	5.76 Mbps	5.76 Mbps
FREQUENCY BANDS					
	CDMA 1XRTT/EV-DO REV A 800/1900 MHz	HSPA 850/1900/2100 MHz	HSPA 900/1900/2100 MHz	HSPA 850/900/1900/2100 MHz	HSPA 850/900/1900/2100 MHz
APPROVALS					
	FCC, Verizon, Sprint	FCC, IC, CE, GCF, PTCRB, A-Tick, AT&T, Telstra, NTT DoCoMo, Softbank, Bell	FCC, IC, CE, GCF, PTCRB, A-Tick, Optus	FCC, IC, CE, GCF, PTCRB, A-Tick, NTT DoCoMo, Softbank, AT&T	FCC, IC, CE, GCF, PTCRB, A-Tick, Telstra, T-Mobile
POWER					
Standby and Idle	1.9-5.6mA	4-5mA	4-5mA	4-5mA	4-5mA
EVDO REV A max	1000mA				
GSM/GPRS max		2.6A	2.6A	2.6A	2.6A
HSxPA max		720mA	720mA	770mA	1000mA
CPU PERFORMANCES					
IO voltage	2.6V	2.6V	2.6V	2.6V	
AUDIO					
Analog audio	1 x speaker out -1 x micro in	1 x speaker out -1 x micro in	1 x speaker out -1 x micro in	1 x speaker out -1 x micro in	
Digital audio	PCM	PCM	PCM	PCM	
Codec	HR, FR, EFR, AMR	HR, FR, EFR, AMR	HR, FR, EFR, AMR	HR, FR, EFR, AMR	
Echo cancellation & noise reduction	✓	✓	✓	✓	
DTMF	✓	✓	✓	✓	
INTERFACES					
UART	1X 8-Wire	1X 8-Wire	1X 8-Wire	1X 8-Wire	
USB	USB 2.0 Full Speed	USB 2.0 High Speed	USB 2.0 High Speed	USB 2.0 High Speed	USB 2.0 High Speed
ON OFF	✓	✓	✓	✓	✓
Vref	2.6V	2.6V	2.6V	2.6V	
ADC	1	1	1	1	
GPIO	4	4	4	4	
Flash LED output	1	1	1	1	1
SIM interface		1,8V or 3V	1,8V or 3V	1,8V or 3V	1,8V or 3V
ANTENNA DIVERSITY					
	✓	✓	✓	✓	✓
LOCATION SOLUTION					
	gpsOne	gpsOne	gpsOne	gpsOne	
CONTROL OPTIONS					
	AT commands, Sierra API	AT commands, Sierra API	AT commands, Sierra API	AT commands, Sierra API	AT commands, Sierra API
DRIVERS					
Windows® Mobile	✓	✓	✓	✓	
Windows® CE	✓	✓	✓	✓	
Windows®XP	✓	✓	✓	✓	✓
Windows® 7	✓	✓	✓	✓	✓
Windows® Vista	✓	✓	✓	✓	✓
Linux	✓	✓	✓	✓	✓
DEVICE DIMENSIONS					
	51 x 30 x 4.5 mm	51 x 30 x 4.5 mm	51 x 30 x 4.5 mm	51 x 30 x 4.5 mm	51 x 30 x 4.5 mm
OPERATIONAL TEMPERATURE					
Normal (Class A)	-30° to +60°C	-25° to +60°C	-25° to +60°C	-25° to +60°C	-25° to +60°C
Extended (Class B) *	-30° to +75°C	-25° to +75°C	-25° to +75°C	-25° to +75°C	-25° to +75°C

* with performance deviations

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