Sierra Wireless AirPrime™ Embedded Wireless Modules MC Series

Air Interface Innovation

Sierra Wireless AirPrime™ MC Series embedded modules deliver high speed connectivity with a variety of advanced air interfaces.

The AirPrime MC Series modules are based on the PCI Express Mini Card standard with a USB 2.0 interface.

These modules are designed to work with 3G (EV-DO Rev A, HSPA, HSPA+) or 4G (LTE) networks and are delivered with a comprehensive set of SDKs and enabling software.

The AirPrime MC Series can turn any mobile computing, networking or field service devices into a powerful communication tool.

AIRPRIME MC7700/MC7710/MC7750

Designed to provide support for new LTE capable networks, the AirPrime series of LTE modules feature data speeds up to 100Mbps downlink and 50Mbps UPA uplink. The AirPrime MC7750 supports LTE and EV-DO networks, while the AirPrime MC7700 and MC7710 support LTE and HSPA+ in different frequency bands.

AIRPRIME MC8704/MC8705

Developed for applications requiring higher bandwidth and running on fast mobile broadband networks available worldwide, these modules offer up to 21 Mbps download speeds with HSPA+ capabilities. The MC8704 supports voice.

AIRPRIME MC8090/MC8092

These modules offer tri-band (850/1900/2100 MHz) or dual-band (900/2100 MHz) HSPA+ connectivity for roaming on high-speed networks at speeds up to 14.4 Mbps downlink and up to 5.76 Mbps uplink, as well as quad-band GSM/GPRS/EDGE and voice support.

AIRPRIME MC5728V

MC5728V provides you 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 and supports voice.

AIRPRIME MC8305/MC8355

Dedicated to Mobile Computing devices to provide access to 3G global networks, the AirPrime MC8305 single mode (HSPA) and MC8355 dual mode (HSPA, CDMA) modules offer speeds up to 14.4 Mbps downlink and 5.76 Mbps uplink. They also provide GPS capabilities and a Gobi application programming interface.

KEY BENEFITS:

- Global access to high speed networks
- Integration and verification support help reduce costs and time to market
- Fast deployment with sofware and tools
- A unique connection manager thanks to comprehensive SDK and enabling software

High Speed

Sierra Wireless AirPrime™
Embedded Wireless Modules
MC Series

	MC77xx	MC870x	MC809x	MC5728V	MC83x5
AIR INTERFACE					
	LTE/HSPA+ LTE/EV-DO (MC7750)	HSPA+	HSPA+	EVDO Rev A	HSPA+ (MC8305) HSPA+/EVDO Rev A (MC8355)
DATA SPEED					
Peak Download Rate	100 Mbps	21.1 Mbps	14.4 Mbps	3.1 Mbps	HSPA 14.4 Mbps EVDO 3.1 Mbps (MC8355)
Peak Upload Rate	50 Mbps	5.76 Mbps	5.76 Mbps	1.8 Mbps	HSPA 5.76 Mbps EVDO 1.8 Mbps (MC8355)
FREQUENCY BANDS					
LTE	700(B17)/AWS (MC7700) 800/900/1800/2100/2600 MHz (MC7710) 700(B13) MHz (MC7750)				
WCDMA	850/1900/2100 MHz (MC7700) 900/2100 MHz (MC7710)	850/900/1900/2100 MHz	850/1900/2100 MHz (MC8090) 900/2100 MHz (MC8092)		850/900/1900/2100/AWS
CDMA 1xRTT/EV-DO Rev A	800/1900 MHz (MC7750)			800/1900 MHz	800/1900 MHz
GSM/GPRS/EDGE	850/900/1800/1900 MHz (MC7700) 900/1800/1900 MHz (MC7710)	850/900/1800/1900 MHz	850/900/1800/1900 MHz		850/900/1800/1900 MHz
APPROVALS					
Regulatory	FCC, IC, NCC (MC7750) FCC, IC, NCC, PTCRB, JATE/ TELEC (MC7700) CE, GCF-CC, NCC (MC7710) Planned	FCC, PTCRB (MC8705) CE, FCC, IC, NCC, PTCRB, GCF-CC	FCC, IC, PTCRB (MC8090) CE, GCF-CC (MC8092)	FCC	FCC, IC, CE, PTCRB, GCF-CC, CDG, A-Tick, NCC
Carrier	Verizon (MC7750) AT&T, NTT Docomo (MC7700) T-Mobile (EU) (MC7710) Planned	Bell, AT&T (MC8705) Bell, Telstra (MC8704) Planned	Targets: AT&T, NTT DoCoMo (MC8090)	Verizon, Sprint	AT&T, Verizon, Sprint, Vodafone, Telefonica, Orange, TIM, T-Mobile (Europe)
CPU PERFORMANCES					
IO voltage	1.8V	1.8V (MC8704)	1.8V	2.6V	
AUDIO					
Analog audio				1 x speaker out -1 x micro in	
Digital audio		I2S (MC8704)	PCM	PCM	
Codec		AMR-NB, GSM-EFR, GSM-FR, GSM-HR, GSM CTM (MC8704)		HR, FR, EFR, AMR	
Echo cancellation & noise reduction			✓	✓	
DTMF			✓	✓	
INTERFACES					
UART			1X 4-Wire (8 wire optional)	1X 8-Wire	
USB	USB 2.0 High Speed	USB 2.0 High Speed	USB 2.0 High Speed	USB 2.0 Full Speed	USB 2.0 Highspeed
ON OFF	✓	✓	✓	✓	✓
Vref			1.8V	2.6V	
ADC				1	
GPIO	6	6 (MC8704)	3	4	1
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					
U.FL Antenna Connectors	3	2	3	2	2
Diversity	✓	✓	✓	✓	✓
MIMO	✓				
GPS Bias	✓				
LOCATION SOLUTION					
	gpsOne™ (MC7700/MC7710) Standalone GPS (MC7750)	gpsOne™	gpsOne™	gpsOne™	gpsOne™
CONTROL OPTIONS					
	AT commands, Gobi API	AT commands, CnS	AT commands, CnS	AT commands, CnS	AT commands, Gobi API
TCP/IP					
			TCP/UDP	TCP/UDP	
DRIVERS					
Windows® Mobile 6.5		✓	✓	✓	✓
Windows® CE 6.0		✓	✓	✓	✓
Android	✓	✓	✓		✓
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 3.05 mm
OPERATIONAL TEMPERATURE					
Normal (Class A)	-25° to +60°C	-25°C to +60°C	-30°C to +70°C	-30°C to +60°C	-30°C to +70°C
Extended (Class B) *		-25°C to +75°C	-40°C to +85°C	-30°C to +75°C	-30°C to +85°C

* with performance deviations

SIERRA WIRELESS™ | **AirPrime™**