

Sierra Wireless AirPrime® Embedded Wireless Modules MC Series

High-Speed Connectivity for Industrial Applications and Mobile Computing

Sierra Wireless AirPrime® MC Series embedded modules deliver high speed connectivity with a variety of advanced air interfaces, including LTE frequencies, designed for industrial M2M and mobile computing solutions.

These modules support LTE, HSPA+, HSPA+ and EV-DO to address networks worldwide and are delivered with a comprehensive set of SDKs and enabling software.

AirPrime MC Series are standard PCI Express Mini Cards with a USB2.0 interface and industrial specifications* to simplify integration and provide an easy upgrade path to new network technologies.

MC73xx

LTE/HSPA+/GSM/GPRS/EDGE/EV-DO Rev A/1xRTT modules, with data speeds up to 100Mbps downlink and 50 Mbps uplink and based on the latest chipset. MC7354/50/50-L/04 feature LTE Quality of Service, VoLTE**/CSFB voice on 3G/2G/CDMA 1xRTT network and an extended set of LTE bands covering worldwide operators.

MC9090

HSPA+/EVDO module with multimode functionality to switch from one operator to another in North America with one single product reference. It features industrial temperature rating, voice and support quad-band GSM/GPRS/EDGE.

MC8805

HSPA+, GSM/GPRS/EDGE modules and support 42 Mbps downlink and 5.76 Mbps uplink speeds for worldwide market.

MC77xx

LTE/HSPA+ or LTE/EV-DO modules, with data speeds up to 100Mbps downlink and 50Mbps uplink.

MC809x

HSPA+ tri-band or dual-band modules for global deployments, as well as quad-band GSM/GPRS/EDGE and voice support.

MC870x

HSPA+ quad-band modules, offering up to 21 Mbps download speed. MC8704 supports voice.

MC5728V

EV-DO Rev A module providing compatibility with widely available CDMA EV-DO Rel 0 and 1x networks and voice support.

*Industrial specifications apply to MC73xx, MC9090, MC8805, MC809x

**VoLTE feature is coming soon



KEY BENEFITS:

- Easy to integrate: Standard PCI Express Mini Card form factor with industrial specifications*
- High-speed cellular connectivity with the latest technologies and multi-operator support
- Easy upgrade path to new network technologies

Essential



AirPrime®

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Embedded Wireless Modules

MC Series

Specifications

	MC528V	MC809x	MC9090	MC870x	MC77xx
AIR INTERFACE	EV-DO Rev A, 1xRTT	HSPA+, GSM/GPRS/EDGE	HSPA+, GSM/GPRS/EDGE, EV-DO Rev A, 1xRTT	HSPA+, GSM/GPRS/EDGE	LTE, HSPA+, GSM/GPRS/EDGE, EV-DO Rev A (MC7750), 1xRTT (MC7750)
DATA SPEED					
Peak Download Rate	3.1Mbps	14.4Mbps	HSPA+ 14.4Mbps EVDO 3.1Mbps	21.1 Mbps	100 Mbps
Peak Upload Rate	1.8Mbps	5.76Mbps	HSPA+ 5.76Mbps EVDO 1.8Mbps	5.76 Mbps	50 Mbps
FREQUENCY BANDS					
LTE					MC7700: 2100(B1), AWS(B4), 700(B17) MC7710: 2100(B1), 1800(B3), 2600(B7), 900(B8), 800(B20) MC7750: 700(B13)
WCDMA		MC8090: 850/1900/2100 MHz MC8092: 900/2100 MHz	800/850/1900/2100 MHz	850/900/1900/2100 MHz	MC7700: 2100(B1), 1900(B2), 850(B5) MC7710: 2100(B1), 900(B8)
CDMA 1xRTT/EV-DO Rev A	800/1900 MHz		800/1900 MHz		MC7750: 800(BC0), 1900(BC1)
GSM/GPRS/EDGE		850/900/1800/1900 MHz	850/900/1800/1900 MHz	Quad-band	Quad-Band
APPROVALS					
Regulatory	FCC, IC	MC8090: FCC, IC, PTCRB MC8092: CE, GCF-CC	FCC, IC, PTCRB, NCC	CE, FCC, IC, NCC, PTCRB, GCF-CC	MC7700: FCC, IC, NCC, PTCRB, JATE/TELEC MC7710: CE, GCF-CC, NCC MC7750: FCC, IC, NCC
Carrier	Verizon, Sprint, Aeris	AT&T, NTT DoCoMo	AT&T, Sprint, Verizon	Bell, Telstra, Telus (MC8704), NZ Telecom (MC8704), AT&T (MC8705)	MC7700: AT&T, NTT Docomo, Bell, Telus, Roger MC7710: T-Mobile MC7750: Verizon
CPU PERFORMANCES					
IO voltage	1.8 V	1.8 V	1.8 V	1.8V (MC8704)	1.8V
AUDIO					
Analog audio	1 x speaker out -1 x micro in				
Digital audio	PCM	PCM	PCM	MC8704: I2S	
Codec	HR, FR, EFR, AMR			(MC8704): AMR-NB, GSM-EFR, GSM-FR, GSM-HR, GSM CTM	
Echo cancellation & noise reduction	✓	✓	✓	MC8704: ✓	
DTMF	✓	✓	✓	MC8704: ✓	
INTERFACES					
UART	1X 8 wire	1X 4-Wire	1X 8 wire		
USB	USB 2.0 High Speed	USB 2.0 High Speed	USB 2.0 High Speed	USB 2.0 High Speed	USB 2.0 High Speed
Main Radio Disable	✓	✓	✓	✓	✓
Vref	2.6V	1.8V	1.8V		
ADC	1				
GPIO	4	4	4	6	4
Flash LED output	1	1	1	1	1
SIM interface		1.8 or 3V	1.8 or 3V	1.8 or 3V	1.8 or 3V
ANTENNA					
U.FL Antenna Connectors	2	3	3	2	3
Diversity	✓	✓	✓	✓	✓
MIMO					✓
GPS Bias					✓
LOCATION SOLUTION	Standalone, gpsOne™	Standalone, A-GPS, gps XTRA	Standalone, A-GPS, gps XTRA	Standalone, A-GPS, gps XTRA	Standalone, A-GPS, gps XTRA, Glonass
CONTROL OPTIONS	AT commands, CnS	AT commands, CnS	AT Commands, Gobi API	AT Commands, CnS	AT Commands, Gobi API
TCP/IP	TCP/UDP	TCP/UDP	TCP/UDP		
DRIVERS					
Windows [®] Mobile 6.5	✓	✓	✓	✓	
Windows [®] CE 6.0	✓	✓	✓	✓	
Android	✓	✓	✓	✓	✓
Linux	✓	✓	✓	✓	✓
DEVICE DIMENSIONS	51 x 30 x 4.5mm	51 x 30 x 4.5mm	51 x 30 x 4.5mm	51 x 30 x 4.5mm	51 x 30 x 4.75mm
OPERATIONAL TEMPERATURE	-30°C to +75°C	-40°C to +85°C	-40°C to +85°C	-25°C to +75°C	-25°C to +60°C

Sierra Wireless AirPrime[®]

Embedded Wireless Modules

MC Series

Specifications

	MC8805	MC7305	MC7304	MC7330
AIR INTERFACE				
	DC-HSPA+, HSPA+, GSM/GPRS	LTE,HSPA+,GSM/GPRS	LTE,HSPA+,GSM/GPRS	LTE,HSPA+,GSM/GPRS
DATA SPEED				
Peak Download Rate	42Mbps	100 Mbps	100 Mbps	100 Mbps
Peak Upload Rate	5.76 Mbps	50 Mbps	50 Mbps	50 Mbps
FREQUENCY BANDS				
LTE		2100(B1),1800(B3), 2600(B7),900(B8), 800(B20)	2100(B1),1800(B3), 2600(B7),900(B8), 800(B20)	2100 (B1), 850 (B19), 1500 (B21)
WCDMA	2100(B1) 1900(B2), 850(B5), 900(B8)	2100(B1),1900(B2) 850(B5), 900(B8)	2100(B1),1900(B2) 850(B5), 900(B8)	2100(B1), 850(B5), 850(B6), 850(B19)
CDMA 1xRTT/EV-DO Rev A				
GSM/GPRS/EDGE	Quad-Band	Quad-Band	Quad-Band	Quad-Band
APPROVALS				
Regulatory	CE, GCF, NCC	CE, GCF, NCC	CE, GCF-CC, NCC	JATE/TELEC, NCC
Carrier	Telefonica	Telstra	Planned: Telstra, Vodafone	NTT Docomo
CPU PERFORMANCES				
IO voltage	1.8V	1.8V	1.8V	1.8V
AUDIO				
Analog audio				
Digital audio			PCM/I2S	PCM/I2S
Codec				
Echo cancellation & noise reduction			✓	✓
DTMF			✓	✓
INTERFACES				
UART				
USB	USB 2.0 High Speed	USB 2.0 High Speed	USB 2.0 High Speed	USB 2.0 High Speed
Main Radio Disable	✓	✓	✓	✓
GNSS Disable	✓	✓		✓
Vref				
ADC				
GPIO	4	4	4	4
Flash LED output	1	1	1	1
SIM interface	1.8 or 3V	1.8 or 3V	1.8 or 3V	1.8 or 3V
ANTENNA				
U.FL Antenna Connectors	2	3	3	3
Diversity	✓	✓	✓	✓
MIMO	✓	✓	✓	✓
GPS Bias			✓	✓
LOCATION SOLUTION				
	Standalone, A-GPS, gps XTRA, Glonass	Standalone, A-GPS, gps XTRA, Glonass	Standalone, A-GPS, gps XTRA, Glonass	Standalone, A-GPS, gps XTRA, Glonass
CONTROL OPTIONS				
	AT Commands, Gobi API	AT Commands, Gobi API	AT Commands, Gobi API	AT Commands, Gobi API
TCP/IP				
DRIVERS				
Windows [®] 7	✓	✓	✓	✓
Windows [®] 8	✓	✓	✓	✓
Windows [®] Mobile 6.5	✓	✓	✓	✓
Windows [®] CE 6.0	✓	✓	✓	✓
Android	✓	✓	✓	✓
Linux	✓	✓	✓	✓
DEVICE DIMENSIONS				
	51 x 30 x 2.7mm	51 x 30 x 2.7mm	51 x 30 x 2.7mm	51 x 30 x 2.7mm
OPERATIONAL TEMPERATURE				
	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C

Sierra Wireless AirPrime® Embedded Wireless Modules MC Series

Specifications

	MC7355	MC7354	MC7350	MC7350-L
AIR INTERFACE				
	LTE,HSPA+,GSM/GPRS/EDGE,EV-DO Rev A, 1xRTT	LTE,HSPA+,GSM/GPRS/EDGE, EV-DO Rev A, 1xRTT	LTE,EV-DO Rev A,1xRTT	LTE Only
DATA SPEED				
Peak Download Rate	100 Mbps	100 Mbps	100 Mbps	100 Mbps
Peak Upload Rate	50 Mbps	50 Mbps	50 Mbps	50 Mbps
FREQUENCY BANDS				
LTE	1900(B2), AWS(B4) 850(B5), 700 (B13), 700(B17), 1900(B25)	1900(B2), AWS(B4) 850(B5),700 (B13),700(B17),1900(B25)	AWS(B4), 700(B13) 1900PCS(B25)	AWS(B4), 700(B13)
WCDMA	2100(B1), 1900(B2), AWS(B4), 850(B5), 900(B8)	2100(B1), 1900(B2), AWS(B4),850(B5), 900(B8)		
CDMA 1xRTT/EV-DO Rev A GSM/GPRS/EDGE	800(BC0), 1900(BC1), 1700(BC10) Quad-Band	800(BC0), 1900(BC1), 1700(BC10) Quad-Band	800(BC0), 1900(BC1), 1700(BC10)	
APPROVALS				
Regulatory	FCC, IC, PTCRB, NCC	FCC, PTCRB, NCC	FCC, NCC	FCC, NCC
Carrier	AT&T, Sprint, Verizon	Planned: AT&T, Verizon, Sprint	Verizon, Sprint	Verizon
CPU PERFORMANCES				
IO voltage	1.8V	1.8V	1.8V	1.8V
AUDIO				
Analog audio				
Digital audio		PCM/I2S	PCM/I2S	PCM/I2S
Codec				
Echo cancellation & noise reduction		✓	✓	✓
DTMF		✓	✓	✓
INTERFACES				
UART				
USB	USB 2.0 High Speed	USB 2.0 High Speed	USB 2.0 High Speed	USB 2.0 High Speed
Main Radio Disable	✓	✓	✓	✓
GNSS Disable	✓			
Vref				
ADC				
GPIO	4	4	4	4
Flash LED output	1	1	1	1
SIM interface	1.8 or 3V	1.8 or 3V	1.8 or 3V	1.8 or 3V
ANTENNA				
U.FL Antenna Connectors	3	3	3	3
Diversity	✓	✓	✓	✓
MIMO	✓	✓	✓	✓
GPS Bias		✓	✓	✓
LOCATION SOLUTION				
	Standalone, A-GPS, gps XTRA, Glonass	Standalone, A-GPS, gps XTRA, Glonass	Standalone, A-GPS, gps XTRA, Glonass	Standalone, A-GPS, gps XTRA, Glonass
CONTROL OPTIONS				
	AT Commands, Gobi API	AT Commands, Gobi API	AT Commands, Gobi API	AT Commands, Gobi API
TCP/IP				
DRIVERS				
Windows® 7	✓	✓	✓	✓
Windows® 8	✓	✓	✓	✓
Windows® Mobile 6.5	✓	✓	✓	✓
Windows® CE 6.0	✓	✓	✓	✓
Android	✓	✓	✓	✓
Linux	✓	✓	✓	✓
DEVICE DIMENSIONS				
	51 x 30 x 2.7mm	51 x 30 x 2.7mm	51 x 30 x 2.7mm	51 x 30 x 2.7mm
OPERATIONAL TEMPERATURE				
	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C