

Sierra Wireless AirPrime[®] Embedded Wireless Modules MC Series

High-speed connectivity in a mini-card form factor

Sierra Wireless AirPrime[®] MC Series supports the latest 4G and 3G networks in North America, Europe, and Asia. Optimized for low power consumption, the MC Series is ideal for today's mobile computing, networking, and industrial IoT applications.

DEPLOY ON THE WORLD'S FASTEST LTE NETWORKS

The MC Series supports 3G and 4G global networks, including LTE Advanced, with automatic fallback to 3G and 2G networks depending on the module variant.

ENABLE LOCATION BASED SERVICES

GNSS tracking lets you locate, monitor, and deploy location-based applications and services with module variants supporting GPS, GLONASS, Beidou, and Galileo satellite systems.

INCORPORATE CLOUD CONNECTED SOLUTIONS

Update firmware, manage applications, and utilize product data over-the-air with AirVantage[®] cloud connectivity (some module variants require a Linux SDK).

SWITCH NETWORKS ANYTIME

The MC74xx module variants allow device manufacturers to store up to three different firmware variants on-board, while the MC73xx has the same functionality via host download, simplifying logistics and supply chain management.

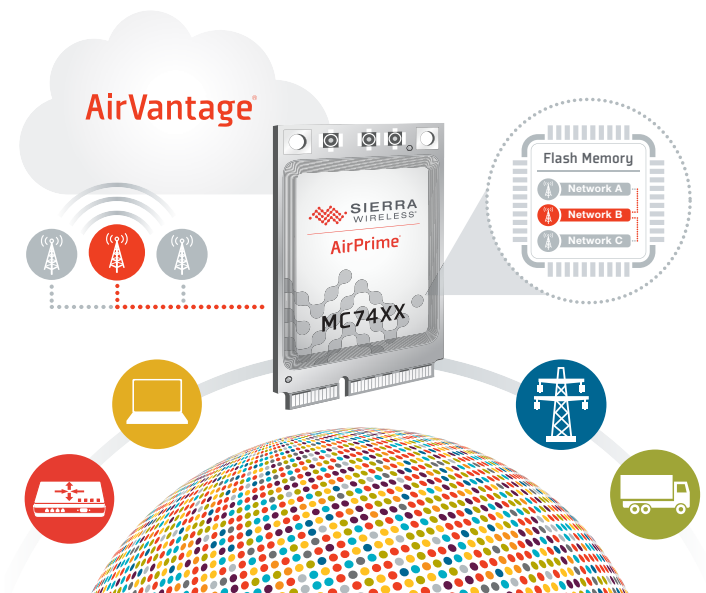


Image shown in actual size
(51 x 30 x 2.7mm)

EASY TO INTEGRATE AND MANAGE

The MC Series can be managed remotely with AirVantage[®] Management Service, enabling device manufacturers to securely upgrade device firmware over-the-air. This can extend the life of your products and solutions by future-proofing remote assets, expanding service quality, and saving customers time and operating costs.

Essential

Sierra Wireless AirPrime[®] Embedded Wireless Modules MC Series

Specifications

| | MC7455* | MC7430* | MC73XX | MC870X | MC9090/MC809X |
|---------------------------------|--|---|--|--|--|
| AIR INTERFACE | LTE-FDD, LTE-TDD HSPA+ | LTE-FDD, LTE-TDD HSPA+, TD-SCDMA | "LTE,HSPA+,GSM/GPRS/EDGE, EV-DO Rev A, 1xRTT (MC7354/50)" | HSPA+,GSM/GPRS/EDGE | "HSPA+,GSM/GPRS/EDGE, EVDO (MC9090)" |
| DATA SPEED | | | | | |
| Peak Download Rate | 300 Mbps | 300 Mbps | 100 Mbps | 21.1 Mbps | "HSPA+ 14.4Mbps EVDO 3.1Mbps (MC9090)" |
| Peak Upload Rate | 50 Mbps | 50 Mbps | 50 Mbps | 5.76 Mbps | "HSPA+ 5.76Mbps EVDO 1.8Mbps (MC9090)" |
| FREQUENCY BANDS | | | | | |
| LTE | B1-B5, B7, B12, B13, B17, B20, B25, B26, B29, B30, B41 | B1, B3, B5, B7, B8, B18, B19, B21, B28, B38-B41 | "MC7304: B1, B3, B7, B8, B20 MC7330: B1, B19, B21 MC7354: B2, B4, B5, B13, B17, B25 MC7350: B4,B13,B25" | | |
| WCDMA | B1, B2, B3, B4, B5, B8 | B1, B5, B6, B8, B9, B19 | MC7304: B1, B2, B5, B8 MC7330: B1, B5, B6, B19 MC735: B1, B2, B4, B5, B8 | 850/900/1900/2100 MHz | MC9090: 800/850/1900/2100 MHz MC8090: 850/1900/2100 MHz MC8092: 900/2100 MHz |
| TD-SCDMA | | B39 | | | |
| CDMA 1xRTT/EV-DO Rev A | | | MC7354/50: BC0,BC1,BC10 | | 800/1900 MHz (MC9090) |
| GSM/GPRS/EDGE | | | Quad-Band MC7350: None | Quad-band | Quad-Band |
| APPROVALS | | | | | |
| Regulatory | Planned: FCC, IC, CE, NCC, GCF, PTCRB | Planned: JRF/JPA, NCC | MC7304: CE, GCF, NCC, FCC MC7330: JRF/JPA, NCC MC7354: FCC, PTCRB, NCC MC7350: FCC, NCC | CE, FCC, IC, NCC, PTCRB, GCF-CC | MC9090: FCC, IC, PTCRB, NCC MC8090: FCC, IC, PTCRB MC8092: CE, GCF-CC |
| Carrier | Planned: AT&T, Verizon, Sprint, Vodafone, Telefonica, Orange | Planned: docomo, Telstra | MC7304: Telstra, Vodafone MC7330: docomo MC7354: AT&T, Verizon, Sprint MC7350: Verizon Sprint | MC8704: Bell, Telstra, Telus, NZ Telecom MC8705: AT&T | MC9090: AT&T, Sprint, Verizon MC8090: AT&T MC8092: docomo |
| CPU PERFORMANCES | | | | | |
| IO voltage | 1.8V | 1.8V | 1.8V | 1.8V (MC8704) | 1.8 V |
| INTERFACES | | | | | |
| UART | | | | | "MC9090: 1X 8 wire MC809x: 1x 4-Wire" |
| USB | "USB 3.0 USB 2.0 High Speed" | "USB 3.0 USB 2.0 High Speed" | USB 2.0 High Speed | USB 2.0 High Speed | USB 2.0 High Speed |
| Main Radio Disable | ✓ | ✓ | ✓ | ✓ | ✓ |
| Vref | 1.8V | 1.8V | 1.8V | 1.8V | 1.8V |
| GPIO | 4 | 4 | 4 | 6 | 4 |
| Flash LED output | 1 | 1 | 1 | 1 | 1 |
| Audio | PCM/I2S** | PCM/I2S** | PCM/I2S | MC8704: I2S | PCM |
| SIM interface | 2x 1.8 or 3V | 2x 1.8 or 3V | 1.8 or 3V | 1.8 or 3V | 1.8 or 3V |
| ANTENNA | | | | | |
| Connectors | Main, Aux/GNSS, GNSS | Main, Aux/GNSS, GNSS | MC7354: Main, Aux/GNSS, GNSS MC7350/04/30: Main, Aux, GNSS | Main, Aux/GNSS | Main, Aux, GNSS |
| Diversity | ✓ | ✓ | ✓ | ✓ | ✓ |
| MIMO | ✓ | ✓ | ✓ | ✓ | ✓ |
| GNSS Bias | ✓ | ✓ | ✓ | ✓ | ✓ |
| LOCATION SOLUTION | | | | | |
| Satellite Systems | GPS, Glonass, Beidou, Galileo | GPS, Glonass, Beidou, Galileo | GPS, Glonass | GPS | GPS |
| Modes*** | Standalone, SUPL 2.0, XTRA 3.0 | Standalone, SUPL 2.0, XTRA 3.0 | Standalone, SUPL 2.0, XTRA 2.0 | Standalone, SUPL 1.0, XTRA 1.0 | Standalone, SUPL 1.0, XTRA 1.0 |
| CONTROL OPTIONS | APIs, AT Commands | APIs, AT Commands | APIs, AT Commands | APIs, AT Commands | APIs, AT Commands |
| 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 | 50 x 30 x 2.7mm | 51 x 30 x 4.5mm | 51 x 30 x 4.5mm |
| OPERATIONAL TEMPERATURE | TBD | TBD | -40°C to +85°C | -25°C to +75°C | -40°C to +85°C |

* Available in 2H 2015

**FW support for voice is a future FW update

***Exact GPS modes supported may be SKU and Operator dependent