



### Sierra Wireless® EM Series Embedded Modules

# High-speed connectivity in a future-proof form factor

Sierra Wireless® AirPrime® EM Series supports the latest 4G and 3G networks in North America, Europe, and Asia. The PCI Express M.2 form factor allows easy integration into smaller and thinner devices. Optimized for low power consumption, the EM Series is ideal for today's mobile computing, networking, and industrial IoT applications.

#### GLOBAL 4G LTE COVERAGE ON A SINGLE MODULE

Deploy anywhere in the world on a single EM75xx LTE-Advanced Pro module that supports a wide selection of 4G bands in North America, Europe, and Asia — simplifying manufacturing and inventory management.

#### ADDITIONAL SPEED BOOST ON UNLICENSED BANDS

Enhance network performance by aggregating licensed and unlicensed spectrum using LTE-LAA, and enable secure and stable private networks using CBRS band.

#### ENABLE PUBLIC SAFETY NETWORKS

Provide a reliable and highly secure network for public safety agencies and first responders by supporting public safety networks in North America and Europe.

#### DEPLOY ON THE WORLD'S FASTEST LTE NETWORKS

The EM Series supports 4G global networks, including LTE Advanced Pro, 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 on the EM75xx and EM74xx module variants with AirVantage® cloud connectivity.

## WHY BASE YOUR DESIGN ON THE NEXT-GEN M.2?

- Smaller and thinner
- Enhanced pin functionality
- Future-proof form factor

#### SWITCH NETWORKS ANYTIME

The EM75xx and EM74xx module variants allow device manufacturers to store up to three different firmware variants on-board, while other variants have the same functionality via host download, simplifying logistics and supply chain management.



|                                           | EM7565                                                                                                                     | EM7455                                                                  | EM7430                                             | EM7355                                                  | EM7305                                  |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------|-----------------------------------------|
| Target Region                             | Global                                                                                                                     | Americas/EMEA                                                           | APAC                                               | Americas                                                | EMEA/Australia                          |
| 4G LTE                                    |                                                                                                                            |                                                                         |                                                    |                                                         |                                         |
| Category                                  | Cat-12                                                                                                                     | Cat-6                                                                   | Cat-6                                              | Cat-3                                                   | Cat-3                                   |
| Frequency Bands                           | B1, B2, B3, B4, B5, B7, B8,<br>B9, B12, B13, B18, B19,<br>B20, B26, B28, B29, B30,<br>B32, B41, B42, B43, B46,<br>B48, B66 | B1-B5, B7, B12, B13, B20,<br>B25, B26, B29, B30, B41                    | B1, B3, B5, B7, B8, B18, B19,<br>B21, B28, B38-B41 | B2, B4, B5, B13, B17, B25                               | B1, B3, B7, B8, B20                     |
| 3G                                        |                                                                                                                            |                                                                         |                                                    |                                                         |                                         |
| 1 Technology supported                    | HSPA+                                                                                                                      | HSPA+, UMTS                                                             | HSPA+, UMTS                                        | HSPA+, UMTS                                             | HSPA+                                   |
| Frequency Bands                           | B1, B2, B3, B4, B5, B6, B8,<br>B9, B19                                                                                     | B1, B2, B3, B4, B5, B8                                                  | B1, B5, B6, B8, B9, B19                            | B1, B2, B4, B5, B8                                      | B1, B2, B5, B8                          |
| 2 Technology supported<br>Frequency Bands |                                                                                                                            |                                                                         | TD-SCDMA<br>B39                                    |                                                         |                                         |
| 2G                                        |                                                                                                                            |                                                                         |                                                    |                                                         |                                         |
| 1 Technology supported                    |                                                                                                                            |                                                                         |                                                    | EDGE, GSM, GPRS                                         | EDGE, GSM, GPRS                         |
| Frequency Bands                           |                                                                                                                            |                                                                         |                                                    | 850, 900, 1800, 1900                                    | 850, 900, 1800, 1900                    |
| 2 Technology supported<br>Frequency Bands |                                                                                                                            |                                                                         |                                                    | CDMA<br>BCO, BC1, BC10                                  |                                         |
| PEAK DL/UL RATE                           | 600 Mbps/ 150 Mbps                                                                                                         | 300 Mbps/ 50 Mbps                                                       | 300 Mbps/ 50 Mbps                                  | 100 Mbps/ 50 Mbps                                       | 100 Mbps/ 50 Mbps                       |
| LOCATION SOLUTION                         |                                                                                                                            |                                                                         | 500 Willps/ 50 Willps                              |                                                         |                                         |
| Satellite Systems*<br>FIRMWARE            | GPS, Galileo, Glonass, Beidou                                                                                              | GPS, Glonass, Beidou, Galileo                                           | GPS, Glonass, Beidou, Galileo                      | GPS, Glonass                                            | GPS, Glonass                            |
| Secure Boot                               | ✓                                                                                                                          |                                                                         |                                                    |                                                         |                                         |
| Pre-certified Firmware                    | ✓                                                                                                                          |                                                                         |                                                    |                                                         |                                         |
| USB DRIVERS                               |                                                                                                                            |                                                                         |                                                    |                                                         |                                         |
| Windows® 7                                |                                                                                                                            | $\checkmark$                                                            | $\checkmark$                                       | $\checkmark$                                            | $\checkmark$                            |
| Windows® 8                                | ✓                                                                                                                          |                                                                         |                                                    |                                                         |                                         |
| Windows® 8.1, 10                          | ✓                                                                                                                          | ✓                                                                       | ✓                                                  | ✓                                                       | ✓                                       |
| Linux, Android RIL                        | ✓                                                                                                                          | √                                                                       | ✓                                                  | ✓                                                       | √                                       |
| NTERFACES                                 |                                                                                                                            |                                                                         |                                                    |                                                         |                                         |
| 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                      |
| PCle                                      | ✓                                                                                                                          |                                                                         |                                                    |                                                         |                                         |
| SIM Interface 1.8V/3V                     | 1                                                                                                                          | 2                                                                       | 2                                                  | 1                                                       | 1                                       |
| APIS, AT COMMANDS                         | ✓                                                                                                                          | V                                                                       | ✓                                                  | V                                                       | ✓                                       |
| HARDWARE                                  | (2                                                                                                                         | (2202.2                                                                 | (2202.2                                            | (2202.2                                                 | (2202.2                                 |
| Dimensions                                | 42 x 30 x 2.3 mm                                                                                                           | 42 x 30 x 2.3 mm                                                        | 42 x 30 x 2.3 mm                                   | 43 x 30 x 2.3 mm                                        | 42 x 30 x 2.3 mm                        |
| Antenna<br>Connectors: Main.              |                                                                                                                            |                                                                         |                                                    |                                                         |                                         |
| Aux/GNSS, GNSS                            | ✓<br>                                                                                                                      | ✓                                                                       | ✓                                                  | ✓                                                       | ✓                                       |
| Diversity                                 | ✓                                                                                                                          | ✓                                                                       | ✓                                                  | ✓                                                       | <ul> <li>✓</li> </ul>                   |
| MIMO                                      | ✓                                                                                                                          | ✓                                                                       | ✓                                                  | ✓                                                       | ✓                                       |
| GNSS Bias                                 | ✓                                                                                                                          | √                                                                       | ✓                                                  |                                                         | √                                       |
| APPROVALS                                 |                                                                                                                            |                                                                         |                                                    |                                                         |                                         |
| Regulatory                                | FCC, IC, CE, PTCRB, GCF, NCC                                                                                               | CE, FCC, GCF, IC, NCC, PTCRB                                            | CE, GCF, JRF/JPA, NCC                              | FCC, IC, NCC, PTCRB                                     | CE, FCC, GCF, NCC                       |
| Carrier                                   | Planned: AT&T, Verizon,<br>docomo, Telstra, Vodafone                                                                       | AT&T, Bell, Rogers, Sprint,<br>Telus, US Cellular, Verizon,<br>Vodafone | docomo, Telstra, KDDI,<br>Softbank                 | AT&T, Bell, Rogers, Sprint,<br>Telus, T-Mobile, Verizon | Orange, Telefonica, Telstra<br>Vodafone |
| CONNECTIVITY<br>Optional embedded SIM     | √                                                                                                                          |                                                                         |                                                    |                                                         |                                         |
| OPTIONAL CLOUD SERVICES                   |                                                                                                                            |                                                                         |                                                    |                                                         |                                         |
| Free Unlimited FOTA<br>upgrades           | •                                                                                                                          | $\checkmark$                                                            | $\checkmark$                                       | $\checkmark$                                            | $\checkmark$                            |
| Device Management                         |                                                                                                                            | $\checkmark$                                                            | √                                                  |                                                         | ✓                                       |
| Application Enablement                    |                                                                                                                            | √                                                                       | √                                                  |                                                         | ✓                                       |
| Connectivity                              |                                                                                                                            |                                                                         |                                                    |                                                         |                                         |
| Management                                |                                                                                                                            | $\checkmark$                                                            | $\checkmark$                                       |                                                         | ✓                                       |

#### **About Sierra Wireless**

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

Sierra Wireless is building the Internet of Things with intelligent wireless solutions that empower organizations to innovate in the connected world. We offer the industry's most comprehensive portfolio of 2G, 3G, and 4G embedded modules and gateways, seamlessly integrated with our secure cloud and connectivity services. OEMs and enterprises worldwide trust our innovative solutions to get their connected products and services to market faster.

For more information, visit www.sierrawireless.com.



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