SIERRA WIRELESS®

WP Series
Legato™

## Sierra Wireless® WP Series Embedded Modules

# Expect more, do more with the next-gen WP

Sierra Wireless® AirPrime® WP Series provides an integrated device-to-cloud architecture enabling IoT developers to build a Linux-based product on a single module and seamlessly send valuable user and product data to the cloud. Offering an application processor running the open source Legato™ platform, GNSS receiver, and cellular modem with an ultra-low power domain, WP modules reduce system complexity and get you to market faster.

### SIMPLIFY SYSTEM DEVELOPMENT WITH A DEVICE-TO-CLOUD ARCHITECTURE

- All the key hardware components of your connected product in a compact form factor to save board space and reduce total BOM (bill of materials)
- Integrated Legato platform that maintains your Linux distribution and includes an application framework, development tools, and community support
- Integrated AirVantage® cloud services make it easy to access product and user data into your backend enterprise applications.

### FUTURE-PROOF YOUR PRODUCT DESIGNS

- CF3™ (common flexible form factor) module design provides worldwide coverage on 2G, 3G, 4G networks, is compatible with HL Series of modules, and capable of supporting new wireless technologies
- The professionally maintained open source Legato platform for IoT enables you to reuse software components and applications in future designs with no vendor lock-in
- AirVantage cloud services with big data storage grows with your deployments and can power future revenue-generating services as your business evolves

### KEEP YOUR PRODUCTS DEPLOYED FOR YEARS IN THE FIELD

- New ultra-low power domain can reduce power consumption by 200x opening new use-cases for cellular where 100% connectivity to the network is not required
- Application sandbox within the Legato platform hosts your proprietary software and provides a secure place for 3rd party applications to enable future services for your customers
- Unlimited FOTA (firmware over-the-air) powered by AirVantage maintains optimized connectivity as networks evolve and keeps your data transmission protected as new security threats arise

## ULTRA-LOW POWER DOMAIN

Ideal for remote solar or battery-powered applications, the WP Series integrated power management feature can reduce power consumption by 200x compared to previous modules, enabling new use-cases for cellular. For example:

- Devices that only need to transmit data once a day can now run on a single battery for up to 3 years*
- Devices that only need to transmit data once a week can now run on a single battery for 10 years*

*based on sending 100kb of data, powered by a standard consumer-grade battery, operating on a 2G network.

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22mm

23mm

| | WP7502 | WP7504 | WP7504-1 | WP8548 |
|---|---|---|---|---|
| Target region | EMEA | Americas | Americas | Global |
| **CF3™ FORM FACTOR** | | | | |
| LGA | ✓ | ✓ | ✓ | ✓ |
| Snap-in Socket Option | ✓ | ✓ | ✓ | ✓ |
| Dimensions: 22 x 33 x 4.4 mm | ✓ | ✓ | ✓ | ✓ |
| **CORES** | | | | |
| Application Core | ARM® Cortex™- A5 (550MHz) | ARM® Cortex™- A5 (550MHz) | ARM® Cortex™- A5 (550MHz) | ARM® Cortex™- A5 (550MHz) |
| Telecom Core | Dual QDSP6 (600MHz) | Dual QDSP6 (600MHz) | Dual QDSP6 (600MHz) | Dual QDSP6 (600MHz) |
| 4G LTE FREQUENCY BANDS | Cat 3: B1, B3, B7, B8, B20 | Cat 3: B2, B4, B5, B12, B17, B25, B26 | Cat 3: B2, B4, B5, B12, B17, B25, B26 | |
| 3G UMTS/HSPA+ FREQUENCY BANDS | B1, B8 | B2, B4, B5 | B2, B4, B5 | B1, B2, B5, B6, B8, B19 |
| 2G EDGE/GSM/GPRS FREQUENCY BANDS | 900, 1800 | | | 850, 900, 1800, 1900 |
| 2G CDMA FREQUENCY BANDS | | BC0, BC1, BC10 | | |
| **APPROVALS** | | | | |
| Regulatory | CE, GCF | PTCRB, FCC, GCF, IC | PTCRB, FCC, GCF, IC | CE, FCC, PTCRB, GCF, IC, JRF/JPA |
| Carrier | | Sprint, AT&T | AT&T | AT&T |
| **EMBEDDED SOFTWARE** | | | | |
| Application Framework | Legato™ open source | Legato™ open source | Legato™ open source | Legato™ open source |
| Linux Distribution | Yocto, Long-term supported Linux Kernel (LTSI) | Yocto, Long-term supported Linux Kernel (LTSI) | Yocto, Long-term supported Linux Kernel (LTSI) | Yocto, Long-term supported Linux Kernel (LTSI) |
| **AUDIO INTERFACES** | | | | |
| PCM | ✓ | ✓ | ✓ | ✓ |
| I2C | ✓ | ✓ | ✓ | ✓ |
| Digital Audio | ✓ | ✓ | ✓ | ✓ |
| **LINK INTERFACES** | | | | |
| UART | 2 | 2 | 2 | 2 |
| USB 2.0 OTG | 1 | 1 | 1 | 1 |
| SDIO | 1 | 1 | 1 | 1 |
| HSIC | 1 | 1 | 1 | 1 |
| **DIGITAL INTERFACES** | | | | |
| GPIO | 20 | 20 | 20 | 20 |
| I2C | 1 | 1 | 1 | 1 |
| SPI | 1 | 1 | 1 | 1 |
| SIM interface 1.8V/3V | 2 | 2 | 2 | 2 |
| Clock | 2 | 2 | 2 | 2 |
| Tx Burst Indicator | 1 | 1 | 1 | 1 |
| Flash LED Output | 1 | 1 | 1 | 1 |
| **ANALOG INTERFACES** | | | | |
| ADC | 4 | 4 | 4 | 4 |
| **LOCATION SERVICES** | | | | |
| GPS, GLONASS, GALILEO | optional | optional | optional | ✓ |
| **CLOUD SERVICES** | | | | |
| Free Unlimited FOTA Upgrades | ✓ | ✓ | ✓ | ✓ |
| SIM & Managed Connectivity | ✓ | ✓ | ✓ | ✓ |
| Device & Embedded Apps Management | ✓ | ✓ | ✓ | ✓ |
| Application Enablement Platform | ✓ | ✓ | ✓ | ✓ |
| **INTERNET SERVICES** | | | | |
| TCP+UDP+FTP+HTTP+HTTPS | ✓ | ✓ | ✓ | ✓ |
| **DRIVERS** | | | | |
| USB Driver for Linux, Windows® 7, Windows® 8 | ✓ | ✓ | ✓ | ✓ |
| **TEMPERATURE RANGE** | | | | |
| Industrial Grade -40°C to +85°C | ✓ | ✓ | ✓ | ✓ |

**About Sierra Wireless**

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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