



## Sierra Wireless® WP Series Embedded Modules

### 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.

22mm



23mm

## 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, and LPWA 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

	WP7502	WP7504	WP7504-1	WP8548
<b>Target region</b>	EMEA	Americas	Americas	Global
<b>CF3™ FORM FACTOR</b>				
<b>LGA</b>	✓	✓	✓	✓
<b>Snap-in Socket Option</b>	✓	✓	✓	✓
<b>Dimensions: 22 x 23 x 4.4 mm</b>	✓	✓	✓	✓
<b>CORES</b>				
<b>Application Core</b>	ARM® Cortex™- A5 (550MHz)	ARM® Cortex™- A5 (550MHz)	ARM® Cortex™- A5 (550MHz)	ARM® Cortex™- A5 (550MHz)
<b>Telecom Core</b>	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)
<b>4G LTE FREQUENCY BANDS</b>	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	
<b>3G UMTS/HSPA+ FREQUENCY BANDS</b>	B1, B8	B2, B4, B5	B2, B4, B5	B1, B2, B5, B6, B8, B19
<b>2G EDGE/GSM/GPRS FREQUENCY BANDS</b>	900, 1800			850, 900, 1800, 1900
<b>2G CDMA FREQUENCY BANDS</b>		BC0, BC1, BC10		
<b>APPROVALS</b>				
<b>Regulatory</b>	CE, GCF	PTCRB, FCC, GCF, IC	PTCRB, FCC, GCF, IC	CE, FCC, PTCRB, GCF, IC, JRF/JPA, NCC
<b>Carrier</b>		AT&T, Sprint, T-Mobile	AT&T, T-Mobile	AT&T
<b>EMBEDDED SOFTWARE</b>				
<b>Application Framework</b>	Legato® open source	Legato® open source	Legato® open source	Legato® open source
<b>Linux Distribution</b>	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)
<b>AUDIO INTERFACES</b>				
<b>PCM</b>	✓	✓	✓	✓
<b>I2C</b>	✓	✓	✓	✓
<b>Digital Audio</b>	✓	✓	✓	✓
<b>LINK INTERFACES</b>				
<b>UART</b>	2	2	2	2
<b>USB 2.0 OTG</b>	1	1	1	1
<b>SDIO</b>	1	1	1	1
<b>HSIC</b>	1	1	1	1
<b>DIGITAL INTERFACES</b>				
<b>GPIO</b>	20	20	20	20
<b>I2C</b>	1	1	1	1
<b>SPI</b>	1	1	1	1
<b>SIM interface 1.8V/3V</b>	2	2	2	2
<b>Clock</b>	2	2	2	2
<b>Tx Burst Indicator</b>	1	1	1	1
<b>Flash LED Output</b>	1	1	1	1
<b>ANALOG INTERFACES</b>				
<b>ADC</b>	4	4	4	4
<b>LOCATION SERVICES</b>				
<b>GPS, GLONASS, GALILEO</b>	optional	optional	optional	✓
<b>CLOUD SERVICES</b>				
<b>Free Unlimited FOTA Upgrades</b>	✓	✓	✓	✓
<b>Connectivity Management Option</b>	✓	✓	✓	✓
<b>Device Management Option</b>	✓	✓	✓	✓
<b>Application Enablement Platform</b>	✓	✓	✓	✓
<b>INTERNET SERVICES</b>				
<b>TCP+UDP+FTP+HTTP+HTTPS</b>	✓	✓	✓	✓
<b>DRIVERS</b>				
<b>USB Driver for Linux, Windows® 7, Windows® 8</b>	✓	✓	✓	✓
<b>TEMPERATURE RANGE</b>				
<b>Industrial Grade -40°C to +85°C</b>	✓	✓	✓	✓

Sierra Wireless  
WP SERIES  
EMBEDDED MODULES

	WP7601-1	WP7601	WP7603-1	WP7603
Target region	Americas	Americas	Americas	Americas
CF3™ FORM FACTOR				
LGA	✓	✓	✓	✓
Snap-in Socket Option	✓	✓	✓	✓
Dimensions: 22 x 23 x 2.5 mm	✓	✓	✓	✓
CORES				
Application Core	ARM® Cortex™- A7 (1.3GHz)	ARM® Cortex™- A7 (1.3GHz)	ARM® Cortex™- A7 (1.3GHz)	ARM® Cortex™- A7 (1.3GHz)
Telecom Core	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)
4G LTE FREQUENCY BANDS	Cat-1: B4, B13	Cat-4: B4, B13	Cat-1: B2, B4, B5, B12	Cat-4: B2, B4, B5, B12
3G UMTS/HSPA+ FREQUENCY BANDS			B2, B4, B5	B2, B4, B5
2G EDGE/GSM/GPRS FREQUENCY BANDS				
2G CDMA FREQUENCY BANDS				
APPROVALS				
Regulatory	FCC, IC	FCC, IC	FCC, IC	FCC, IC
Carrier	Verizon	Verizon	AT&T, T-Mobile	AT&T, T-Mobile
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	18	18	18	18
I2C	1	1	1	1
SPI	1	1	1	1
SIM interface 1.8V/3V	1	1	1	1
Clock	2	2	2	2
Tx Burst Indicator	1	1	1	1
Flash LED Output	1	1	1	1
ANALOG INTERFACES				
ADC	3	3	3	3
LOCATION SERVICES				
GPS, GLONASS, GALILEO, BEIDOU	optional	optional	optional	optional
CLOUD SERVICES				
Free Unlimited FOTA Upgrades	✓	✓	✓	✓
Connectivity Management Option	✓	✓	✓	✓
Device Management Option	✓	✓	✓	✓
Application Enablement Option	✓	✓	✓	✓
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, 4G, and LPWA 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](http://www.sierrawireless.com).