





# 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<sup>®</sup> 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 batterypowered applications, the WP Series integrated power management feature can reduce power consumption by 200x compared to previous modules, enabling new usecases 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.



23mm

## Sierra Wireless WP SERIES EMBEDDED MODULES

	WP7502	WP7504	WP7504-1	WP8548
Target region	EMEA	Americas	Americas	Global
CF3™ FORM FACTOR				
LGA	✓	<u>√</u>	<u>√</u>	✓
Snap-in Socket Option	✓	✓	✓	<i>✓</i>
Dimensions: 22 x 33 x 4.4 mm	√	√	$\checkmark$	✓
CORES				
Application Core	ARM® Cortex™- A5 (550MHz)	ARM® Cortex™- A5 (550MHz)	ARM® Cortex™- A5 (550MHz)	ARM® Cortex™- A5 (550MHz)
Telecom Core 4G LTE FREQUENCY BANDS	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)
40 LIE FREQUENCT 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	Yocto, Long-term supported Linux		Yocto, Long-term supported Linux
	Kernel (LTSI)	Kernel (LTSI)	Kernel (LTSI)	Kernel (LTSI)
AUDIO INTERFACES	,	,	,	,
PCM I2C	✓ ✓	✓ ✓	✓ ✓	✓ ✓
Digital Audio	✓ ✓	✓ ✓	✓ ✓	✓ ✓
LINK INTERFACES	v	Ŷ	Ŷ	×
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
12C	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	$\checkmark$
CLOUD SERVICES				
Free Unlimited FOTA Upgrades	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
SIM & Managed Connectivity	✓	$\checkmark$	$\checkmark$	$\checkmark$
Device & Embedded Apps Management	✓	✓	✓	$\checkmark$
Application Enablement Platform	✓	✓	✓	✓
INTERNET SERVICES				
TCP+UDP+FTP+HTTP+HTTPS	$\checkmark$	$\checkmark$	$\checkmark$	✓
DRIVERS				
USB Driver for Linux, Windows <sup>®</sup> 7,	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Windows <sup>®</sup> 8				
TEMPERATURE RANGE				
Industrial Grade -40°C to +85°C	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

#### 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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