



## 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.



## 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

Sierra Wireless  
WP SERIES EMBEDDED MODULES

	WP7502	WP7504	WP7504-1	WP8548
<b>Target Region</b>	EMEA	Americas	Americas	Global
<b>4G LTE</b>				
<b>Category</b>	Cat-3	Cat-3	Cat-3	
<b>Frequency Bands</b>	B1, B3, B7, B8, B20	B2, B4, B5, B12, B17, B25, B26	B2, B4, B5, B12, B17, B25, B26	
<b>3G</b>				
<b>Technology supported</b>	HSPA+, UMTS	HSPA+, UMTS	HSPA+, UMTS	HSPA+, UMTS
<b>Frequency Bands</b>	B1, B8	B2, B4, B5	B2, B4, B5	B1, B2, B5, B6, B8, B19
<b>Technology supported</b>		EVDO		
<b>Frequency Bands</b>		BC0, BC1, BC10		
<b>2G</b>				
<b>Technology supported</b>	EDGE, GSM, GPRS	CDMA		EDGE, GSM, GPRS
<b>Frequency Bands</b>	900, 1800	BC0, BC1, BC10		850, 900, 1800, 1900
<b>DATA SPEED</b>				
<b>Peak Download Rate</b>	100 Mbps	100 Mbps	100 Mbps	42 Mbps
<b>Peak Upload Rate</b>	50 Mbps	50 Mbps	50 Mbps	5.76 Mbps
<b>LOCATION SERVICES</b>				
<b>Satellite Systems (Optional)</b>	GPS, Galileo, Glonass	GPS, Galileo, Glonass	GPS, Galileo, Glonass	GPS, Galileo, Glonass
<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>EMBEDDED SOFTWARE</b>				
<b>Pre-certified Firmware</b>	✓	✓	✓	✓
<b>APPLICATION FRAMEWORK</b>				
<b>Embedded Platform</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 CODECS</b>				
<b>Digital audio</b>	✓	✓	✓	✓
<b>PCM/12S</b>	✓	✓	✓	✓
<b>Codec: HR, FR, EFR, AMR</b>	✓	✓	✓	✓
<b>Echo cancellation &amp; noise reduction</b>	✓	✓	✓	✓
<b>DTMF</b>	✓	✓	✓	✓
<b>USB DRIVERS</b>				
<b>Windows® 7 and 8</b>	✓	✓	✓	✓
<b>Linux Driver</b>	✓	✓	✓	✓
<b>INTERFACES</b>				
<b>UART</b>	2	2	2	2
<b>USB</b>	1	1	1	1
<b>I2C</b>	1	1	1	1
<b>ADC</b>	4	4	4	4
<b>GPIO</b>	20	20	20	20
<b>Tx ON Indicator</b>	1	1	1	1
<b>SIM Interface 1.8V/3V</b>	2	2	2	2
<b>HARDWARE</b>				
<b>CF3™ Form Factor (LGA)</b>	✓	✓	✓	✓
<b>Snap-in socket option</b>	✓	✓	✓	✓
<b>Dimensions</b>	22x23x4.4mm	22x23x4.4mm	22x23x4.4mm	22x23x4.4mm
<b>Antenna: Diversity</b>	✓	✓	✓	✓
<b>Antenna: MIMO</b>	✓	✓	✓	✓
<b>TEMPERATURE RANGE</b>				
<b>Industrial Grade</b>	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
<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, Sprint, T-Mobile	AT&T
<b>CLOUD SERVICES</b>				
<b>Free Unlimited FOTA upgrades</b>	✓	✓	✓	✓
<b>Device Management option</b>	✓	✓	✓	✓
<b>Application Enablement option</b>	✓	✓	✓	✓
<b>Connectivity Management option</b>	✓	✓	✓	✓

Sierra Wireless  
WP SERIES EMBEDDED MODULES

	WP7601	WP7601-1	WP7603	WP7603-1
<b>Target Region</b>	Americas	Americas	Americas	Americas
<b>4G LTE</b>				
<b>Category</b>	Cat-4	Cat-1	Cat-4	Cat-1
<b>Frequency Bands</b>	B4, B13	B4, B13	B2, B4, B5, B12	B2, B4, B5, B12
<b>3G</b>				
<b>Technology supported</b>			HSPA+, UMTS	HSPA+, UMTS
<b>Frequency Bands</b>			B2, B4, B5	B2, B4, B5
<b>DATA SPEED</b>				
<b>Peak Download Rate</b>	150 Mbps	10 Mbps	150 Mbps	10 Mbps
<b>Peak Upload Rate</b>	50 Mbps	5 Mbps	50 Mbps	50 Mbps
<b>LOCATION SERVICES</b>				
<b>Satellite Systems (Optional)</b>	GPS, Galileo, Glonass, Beidou	GPS, Galileo, Glonass, Beidou	GPS, Galileo, Glonass, Beidou	GPS, Galileo, Glonass, Beidou
<b>CORES</b>				
<b>Application Core</b>	ARM® Cortex™- A7 (1.3GHz)	ARM® Cortex™- A7 (1.3GHz)	ARM® Cortex™- A7 (1.3GHz)	ARM® Cortex™- A7 (1.3GHz)
<b>Telecom Core</b>	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)
<b>EMBEDDED SOFTWARE</b>				
<b>Secure Boot</b>	✓	✓	✓	✓
<b>Pre-certified Firmware</b>	✓	✓	✓	✓
<b>APPLICATION FRAMEWORK</b>				
<b>Embedded Platform</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 CODECS</b>				
<b>Digital audio</b>	✓	✓	✓	✓
<b>PCM/12S</b>	✓	✓	✓	✓
<b>Codec: HR, FR, EFR, AMR</b>	✓	✓	✓	✓
<b>Echo cancellation &amp; noise reduction</b>	✓	✓	✓	✓
<b>DTMF</b>	✓	✓	✓	✓
<b>USB DRIVERS</b>				
<b>Windows® 7 and 8</b>	✓	✓	✓	✓
<b>Linux</b>	✓	✓	✓	✓
<b>INTERFACES</b>				
<b>UART</b>	2	2	2	2
<b>USB</b>	1	1	1	1
<b>I2C</b>	1	1	1	1
<b>ADC</b>	4	4	4	4
<b>GPIO</b>	18	18	18	18
<b>Tx ON Indicator</b>	1	1	1	1
<b>SIM Interface 1.8V/3V</b>	1	1	1	1
<b>HARDWARE</b>				
<b>CF3™ Form Factor (LGA)</b>	✓	✓	✓	✓
<b>Snap-in socket option</b>	✓	✓	✓	✓
<b>Dimensions</b>	22x23x2.5mm	22x23x2.5mm	22x23x2.5mm	22x23x2.5mm
<b>Antenna: Diversity</b>	✓	✓	✓	✓
<b>Antenna: MIMO</b>	✓	✓	✓	✓
<b>TEMPERATURE RANGE</b>				
<b>Industrial Grade</b>	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
<b>APPROVALS</b>				
<b>Regulatory</b>	FCC, IC	FCC, IC	FCC, IC	FCC, IC
<b>Carrier</b>	Verizon	Verizon	AT&T, T-Mobile	AT&T, T-Mobile
<b>APPROVALS</b>				
<b>Optional Ready-to-Connect Sierra Wireless embedded SIM</b>	✓	✓	✓	✓
<b>CLOUD SERVICES</b>				
<b>Free Unlimited FOTA upgrades</b>	✓	✓	✓	✓
<b>Device Management option</b>	✓	✓	✓	✓
<b>Application Enablement option</b>	✓	✓	✓	✓
<b>Connectivity Management option</b>	✓	✓	✓	✓

Note: VoLTE supported as a firmware upgrade

Sierra Wireless  
WP SERIES EMBEDDED MODULES

	WP7607	WP7607-1	WP7608	WP7608-1	WP7609
<b>Target Region</b>	EMEA	EMEA	India/China	India/China	Australia
<b>4G LTE</b>					
<b>Category</b>	Cat-4	Cat-1	Cat-4	Cat-1	Cat-4
<b>Frequency Bands</b>	B1, B3, B7, B8, B20, B28	B1, B3, B7, B8, B20, B28	B1, B3, B5, B8, B40, B41*	B1, B3, B5, B8, B40, B41*	B1, B3, B5, B7, B8, B28
<b>3G</b>					
<b>Technology supported</b>	HSPA+, UMTS	HSPA+, UMTS	HSPA+, UMTS	HSPA+, UMTS	HSPA+, UMTS
<b>Frequency Bands</b>	B1, B8	B1, B8	B1, B8	B1, B8	B1, B5, B8
<b>2G</b>					
<b>Technology supported</b>	EDGE, GSM, GPRS	EDGE, GSM, GPRS	EDGE, GSM, GPRS	EDGE, GSM, GPRS	
<b>Frequency Bands</b>	900, 1800	900, 1800	900, 1800	900, 1800	
<b>DATA SPEED</b>					
<b>Peak Download Rate</b>	150 Mbps	10 Mbps	150 Mbps	10 Mbps	150 Mbps
<b>Peak Upload Rate</b>	50 Mbps	5 Mbps	50 Mbps	5 Mbps	50 Mbps
<b>LOCATION SERVICES</b>					
<b>Satellite Systems (Optional)</b>	GPS, Galileo, Glonass, Beidou	GPS, Galileo, Glonass, Beidou	GPS, Galileo, Glonass, Beidou	GPS, Galileo, Glonass, Beidou	GPS, Galileo, Glonass, Beidou
<b>CORES</b>					
<b>Application Core</b>	ARM® Cortex™- A7 (1.3GHz)	ARM® Cortex™- A7 (1.3GHz)	ARM® Cortex™- A7 (1.3GHz)	ARM® Cortex™- A7 (1.3GHz)	ARM® Cortex™- A7 (1.3GHz)
<b>Telecom Core</b>	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)
<b>EMBEDDED SOFTWARE</b>					
<b>Secure Boot</b>	✓	✓	✓	✓	✓
<b>Pre-certified Firmware</b>	✓	✓	✓	✓	✓
<b>APPLICATION FRAMEWORK</b>					
<b>Embedded Platform</b>	Legato® open source	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)	Yocto, Long-term supported Linux Kernel (LTSI)
<b>AUDIO CODECS</b>					
<b>Digital audio</b>	✓	✓	✓	✓	✓
<b>PCM/12S</b>	✓	✓	✓	✓	✓
<b>Codec: HR, FR, EFR, AMR</b>	✓	✓	✓	✓	✓
<b>Echo cancellation &amp; noise reduction</b>	✓	✓	✓	✓	✓
<b>DTMF</b>	✓	✓	✓	✓	✓
<b>USB DRIVERS</b>					
<b>Windows® 7 and 8</b>	✓	✓	✓	✓	✓
<b>Linux</b>	✓	✓	✓	✓	✓
<b>INTERFACES</b>					
<b>UART</b>	2	2	2	2	2
<b>USB</b>	1	1	1	1	1
<b>I2C</b>	1	1	1	1	1
<b>ADC</b>	4	4	4	4	4
<b>GPIO</b>	18	18	18	18	18
<b>Tx ON Indicator</b>	1	1	1	1	1
<b>SIM Interface 1.8V/3V</b>	1	1	1	1	1
<b>HARDWARE</b>					
<b>CF3™ Form Factor (LGA)</b>	✓	✓	✓	✓	✓
<b>Snap-in socket option</b>	✓	✓	✓	✓	✓
<b>Dimensions</b>	22x23x2.5mm	22x23x2.5mm	22x23x2.5mm	22x23x2.5mm	22x23x2.5mm
<b>Antenna: Diversity</b>	✓	✓	✓	✓	✓
<b>Antenna: MIMO</b>	✓	✓	✓	✓	✓
<b>TEMPERATURE RANGE</b>					
<b>Industrial Grade</b>	-40°C to +85°C	-40°C to +85°C	-40°C / +85°C	-40°C / +85°C	-40°C to +85°C
<b>APPROVALS</b>					
<b>Regulatory</b>	GCF	GCF	CCC, GCF	CCC, GCF	GCF, RCM
<b>Carrier</b>					Telstra, Optus, Vodafone
<b>CONNECTIVITY</b>					
<b>Optional Ready-to-Connect Sierra Wireless embedded SIM</b>	✓	✓	✓	✓	✓
<b>CLOUD SERVICES</b>					
<b>Free Unlimited FOTA upgrades</b>	✓	✓	✓	✓	✓
<b>Device Management option</b>	✓	✓	✓	✓	✓
<b>Application Enablement option</b>	✓	✓	✓	✓	✓
<b>Connectivity Management option</b>	✓	✓	✓	✓	✓

\*B41 supported frequency range: (2535–2655 MHz)  
Note: VoLTE supported as a firmware upgrade

	WP7700	WP7702
<b>Target Region</b>	Global	Global
<b>4G LTE</b>		
<b>Category</b>	Cat-M1/NB1	Cat-M1/NB1
<b>Frequency Bands</b>	B1, B2, B3, B4, B5, B8, B12, B13, B17, B18, B19, B20, B26, B28	B1, B2, B3, B4, B5, B8, B12, B13, B17, B18, B19, B20, B26, B28
<b>2G</b>		
<b>Technology supported</b>		GSM, GPRS
<b>Frequency Bands</b>		900, 1800
<b>DATA SPEED</b>		
<b>Peak Download Rate</b>	Cat-M1: 300kbps   Cat-NB1: 27kbps	Cat-M1: 300kbps   Cat-NB1: 27kbps
<b>Peak Upload Rate</b>	Cat-M1: 375kbps   Cat-NB1: 65kbps	Cat-M1: 375kbps   Cat-NB1: 65kbps
<b>LOCATION SERVICES</b>		
<b>Satellite Systems (Optional)</b>	GPS, Galileo, Glonass, Beidou	GPS, Galileo, Glonass, Beidou
<b>CORES</b>	ARM® Cortex™- A7 (1.3GHz)	ARM® Cortex™- A7 (1.3GHz)
<b>Application Core</b>		
<b>Telecom Core</b>	Dual QDSP6 (600MHz)	Dual QDSP6 (600MHz)
<b>EMBEDDED SOFTWARE</b>		
<b>Secure Boot</b>	✓	✓
<b>Pre-certified Firmware</b>	✓	✓
<b>APPLICATION FRAMEWORK</b>		
<b>Embedded Platform</b>	Legato® open source	Legato® open source
<b>Linux Distribution</b>	Yocto, Long-term supported Linux Kernel (LTSI)	Yocto, Long-term supported Linux Kernel (LTSI)
<b>AUDIO CODECS</b>		
<b>Digital audio</b>	✓	✓
<b>PCM/12S</b>	✓	✓
<b>Codec: HR, FR, EFR, AMR</b>	✓	✓
<b>Echo cancellation &amp; noise reduction</b>	✓	✓
<b>DTMF</b>	✓	✓
<b>USB DRIVERS</b>		
<b>Windows® 7 and 8</b>	✓	✓
<b>Linux</b>	✓	✓
<b>INTERFACES</b>		
<b>UART</b>	2	2
<b>USB</b>	1	1
<b>I2C</b>	1	1
<b>ADC</b>	4	4
<b>GPIO</b>	18	18
<b>Tx ON Indicator</b>	1	1
<b>SIM Interface 1.8V/3V</b>	1	1
<b>SPI</b>	1	1
<b>HARDWARE</b>		
<b>CF3™ Form Factor (LGA)</b>	✓	✓
<b>Snap-in socket option</b>	✓	✓
<b>Dimensions</b>	22x23x2.5mm	22x23x2.5mm
<b>Antenna: Diversity</b>	✓	✓
<b>Antenna: MIMO</b>	✓	✓
<b>TEMPERATURE RANGE</b>		
<b>Industrial Grade</b>	-40°C to +85°C	-40°C to +85°C
<b>APPROVALS</b>		
<b>Regulatory</b>	PTCRB, FCC, GCF, IC	PTCRB, FCC, GCF, IC
<b>Carrier</b>	AT&T, Verizon, NTT, Telstra, KT, SKT	AT&T, Verizon, NTT, Telstra, KT, SKT
<b>CONNECTIVITY</b>		
<b>Optional Ready-to-Connect Sierra Wireless embedded SIM</b>	✓	✓
<b>CLOUD SERVICES</b>		
<b>Free Unlimited FOTA upgrades</b>	✓	✓
<b>Device Management option</b>	✓	✓
<b>Application Enablement option</b>	✓	✓
<b>Connectivity Management option</b>	✓	✓

Note: VoLTE supported as a firmware upgrade