



## Parallel Wireless CWS Outdoor Hardware Family Data Sheet

### Overview

#### OUTDOOR CWS

##### Key Features

- 3GPP compliant
- SON-based interference mitigation
- Self-configuring, self-optimizing, and self-managing via HetNet Gateway

##### Key Benefits

- Cost-effective, resilient coverage outdoors
- Lower overall TCO
- Flexibility in deployment: fewer sites

The Converged Wireless System CWS family is a software-defined – multi-mode – multi-carrier base station hardware. It supports 3G and 4G and integrates flexible backhaul in the same form factor.

The CWS product family is available in:

- CWS-1000
- CWS-2000
- CWS-3000

CWS cost-effectively gives Service Providers the flexibility and power they need to deliver coverage outdoors. The compact design approach helps to achieve the right level of system flexibility and attractive economics for Service Providers to deliver variants for a wide-variety of deployments with the lowest cost/unit coverage ratio.

All of the models are auto-configured and managed by the Parallel Wireless HetNet Gateway (HNG). The CWS can be deployed and maintained without any specialized staff. The HNG makes the CWS nodes self-configurable, self-optimizing, provides resilience, and enables meshing between the nodes using licensed or unlicensed spectrum.

The CWS supports 3G (WCDMA) and 4G/LTE, which helps drive the overall cost down resulting in fewer sites due to the support multiple technologies.

CWS backhaul capabilities can be enhanced with wireless mesh by simply connecting a wireless mesh backhaul module via an Ethernet cable. Multiple CWSs can connect to each other to form a mesh cluster and eliminating need

for other types of backhaul.

### CWS Key Features and Capabilities

- 3G and 4G/LTE
- Integrated flexible backhaul: Fiber/Ethernet/LTE, satellite, wireless
- 3GPP compliant across all components

- 3GPP compliant “Plug-n- Play” security
- SON-based interference mitigation and power adjustments
- Carrier-grade hardware
- Low power consumption
- Software-enabled remote diagnostic to detect, monitor, and alarm

**Deployment Options**

CWS, an outdoor product series node, can be attached to any street or rooftop furniture  
*Recommended applications:*

- To improve outdoor coverage in rural, not-spots and capacity in high density urban environments
- For general-purpose rugged outdoor wireless LAN and venues

**CWS Outdoor Series Family Specifications at a Glance**

<b>Architecture</b>	<b>High-capacity platform for cost-effective, resilient coverage</b>
<b>Flexibility</b>	Virtualized design: functions based on software are not coupled to hardware: <ul style="list-style-type: none"> <li>• Self-configuring</li> <li>• Self-optimizing</li> <li>• Self-healing</li> </ul>
<b>Air Interface</b>	<ul style="list-style-type: none"> <li>• 3G/WCDMA</li> <li>• 4G/LTE</li> </ul>
<b>Wi-Fi AP</b>	802.11 a,b,g,n,ac
<b>Software Upgrade</b>	Available
<b>Resilience</b>	Full hardware and software redundancy, as well as high-availability software techniques
<b>Interference management</b>	Fully automatic via HetNet Gateway
<b>Operating Temperature</b>	-40 to +55C

**CWS Outdoor Family Compliance (in progress)**

<b>Weatherproof</b>	IP67
<b>Altitude</b>	3900m
<b>Safety</b>	EN 60950 -1 and EN 60950-22
<b>EMC</b>	<ul style="list-style-type: none"> <li>- EN 55022 Class B</li> <li>- EN 55024</li> <li>- EN 61000-3-2</li> </ul>

	<ul style="list-style-type: none"> <li>- EN 61000-3-3</li> <li>- EN 301 489-1</li> <li>- GR1089</li> </ul>
<b>Vibration</b>	GR3108
<b>3GPP</b>	TS 25.141 & TS 36.141 Rel. 11 called by ETSI Harmonized Standards
<b>RF/Radio</b>	<ul style="list-style-type: none"> <li>- EN 301 489-50</li> <li>- EN 301 908-3 (+UK OFCOM IR2019)</li> <li>- EN 301 908-13</li> <li>- EN 301 908-14(+UK OFCOM IR2087)</li> <li>- EN 50383</li> <li>- EN 50385</li> <li>- EN 62311</li> </ul>
<b>Lightning</b>	GR1089
<b>Environmental</b>	<ul style="list-style-type: none"> <li>- RoHS II Directive 2011/65/EU</li> <li>- WEEE Directive 2012/19/EU</li> <li>- California Proposition 65 (USA)</li> <li>- Energy Consumption: (CONUEE-Mexico) (Star Energy–USA &amp; Canada) (Level VI in Europe)</li> </ul>

For additional information about the Parallel Wireless CWS family of products, please e-mail [orders@parallelwireless.com](mailto:orders@parallelwireless.com)