

# Accelleran E1000 Series Local Area Small Cells

### LTE FDD or LTE TDD Local Area Coverage in a box

Accelleran E1000 Series Outdoor Local Area is the solution to provide LTE FDD or LTE TDD outdoor network coverage in medium size office environments, venues, shopping centres, urban/suburban/rural and remote areas... providing carrier and mission-critical grade RAN engineering in a small (3.5 litres) form factor

### EASE OF DEPLOYMENT

The E1000 Series Outdoor Local Area is designed to be easily and flexibly deployed by a normal user by just connecting an PoE+/Ethernet cable. Its Plug and Play capabilities do the rest.

### LOWEST COST

For lowest cost solution the E1000 Series Outdoor Local Area supports a single 2x2 MIMO transceiver chain (cell) in different LTE FDD or LTE TDD bands and can optionally integrate embedded EPC functionality (Network-in-a-Box)



## PRODUCT DESCRIPTION

**The E1000 Series is a small form factor Local Area LTE FDD or LTE TDD Small Cell, supporting by default a single cell capable of providing up to 100mW (FDD)/250mW (TDD) RF power per antenna port.**

It is intended for deployment in enterprise, public urban and suburban scenarios, where typically a planned inside-out/outside-in deployment of Small Cells will complement macro coverage adding significantly to network capacity by offloading the macro and increasing the available coverage in the enterprises, venues, shopping centres, urban hotspots...or as a single layer ultra-dense Small Cell-only network. Alternatively, it can also be deployed for Fixed Wireless Access deployments in urban/suburban and in remote and rural scenarios.

- Its sleek appearance makes it very suitable for any type of environments. It is truly a carrier grade RAN network node with the skin and appearance of a normal router product.
- As a result of its flexible software architecture, the E1000 Series Outdoor is software upgradeable to support a roadmap of new features.
- The E1000 Series Outdoor offers great flexibility for backhaul connectivity via its 1Gbps Ethernet port

- LTE FDD or LTE TDD 3GPP Compliant Local Area Small Cells
- 1 transceiver per unit (single cell)
- 20 dBm/100 mW (FDD) or 24 dBm/250 mW (TDD) Tx power per antenna port
- 2x2 MIMO
- 5, 10, 15 & 20MHz Channels
- TDD Bands 38, 40, 41, 42, 43\*, B48/CBRS
- FDD Bands 1, 3, 7 (Other bands on request)
- Integrated GNSS (GPS, GLONASS, BDS)
- Gigabit Ethernet Connectivity (PoE+)
- Optional Embedded EPC (Network-in-a-box)
- Flexible Remote Management Interface

## ABOUT ACCELLERAN

**Accelleran was founded at the end of 2012 by a team of veterans of the small cell industry. With an average experience of more than 20 years, the team has been active in small cell development for most of the past decade. The results of this experience have been distilled into the E1000 Series Outdoor Local Area.**

**Our key objectives in all product developments are:**

### • Carrier & Mission-Critical Grade Quality

We insist on SW development standards and practices from the safety-critical industries in order to ensure our products deliver "five nine's" reliability out of the box.

### • Ease of Deployment and Configuration

Through careful design and close collaboration with our partners we are driving down the costs and complexities of small cell deployment in the field - where it counts.

### • Best-in-Class Manageability

We understand the increasing demands for realtime insight into network performance and enduser experience. We have engineered an open and flexible management platform designed to enable easy integration with standards-based or proprietary OSS and SON systems.

### • Security

All our products are built on trusted platform technology embedding per-device keys and secure tunnelling endpoints into the same silicon. All code is signed and checked at runtime to protect against the possibility of unit hijack.

# The E1000 Series Local Area Small Cells for HetNets or for Fixed Wireless Access

Mode	Band	Product
TDD	B42	E1010
	B43*	E1011
	B48/CBRS	E1012
	B38/41	E1013
	B40	E1014
FDD	B7	E1020
	B3	E1021
	B1	E1022
Other bands on request		

Deploy the E1000 Series Outdoor Local Area in medium sized enterprise, venues, shopping centres, urban hotspots... to enable inside-out/outside-in HetNet or ultra-dense scenarios to cost effectively provide coverage and capacity, or in rural, suburban and remote scenarios to provide coverage. Whether you are deploying an isolated enterprise solution for your verticals, an integrated multiple layer network or an integrated single layer network with key interference cancellation techniques, you will always get the most out of the licensed and lightly licensed spectrum capabilities of your network.

## E1000 Series Technical Specification

Single Cell LTE FDD or LTE FDD Local Area Small Cells	
Transceiver Specification	Band Support
<ul style="list-style-type: none"> <li>2 x 2 MIMO</li> <li>Local Area Basestation Class</li> <li>20dBm/100mW RF power per antenna port (FDD)</li> <li>24dBm/250mW RF power per antenna port (TDD)</li> <li>1 transceiver per unit (single cell)</li> </ul>	<ul style="list-style-type: none"> <li>LTE FDD Bands 1, 3, 7</li> <li>LTE TDD Bands 38, 40, 41, 42, 43*, 48/CBRS</li> <li>Other FDD and TDD Bands on request</li> </ul> <p>*23 dBm/200 mW per antenna port</p>
Network Interfaces	
Layer 1 & 2	Layer 3 and OAM
<ul style="list-style-type: none"> <li>1 GBE port</li> <li>IPv4/IPv6</li> </ul>	<ul style="list-style-type: none"> <li>S1, Type 1 OAM (TR-069/TR-196) or OAM Webserver</li> <li>Alternative OAM interface possible (CLI/Prop/ Type 2)</li> </ul>
LTE Feature Support	
<ul style="list-style-type: none"> <li>3GPP Release 9 (upgradeable to Release 10)</li> <li>Up to 64 active users</li> <li>LTE FDD or LTE TDD</li> <li>Integrated GNSS (GPS, GLONASS, BDS)</li> <li>RF Sniffing</li> <li>Cell Selection/Re-selection</li> </ul>	<ul style="list-style-type: none"> <li>Radio Bearer Control</li> <li>Admission Control</li> <li>Scheduler &amp; Rate Control</li> <li>Optional Embedded EPC (Network-in-a-box)</li> <li>Open, CSG or Hybrid Access Control</li> <li>OAM (CM, PM, FM, Diagnostics) &amp; SON</li> </ul>
Security	
<ul style="list-style-type: none"> <li>3GPP standard LTE air interface security</li> <li>IPSec AES encrypted tunnels on all network connections</li> </ul>	<ul style="list-style-type: none"> <li>Trusted Platform technology embedded in silicon</li> <li>Per Device PKI key pairs</li> <li>Secure Boot through digital signatures of all executables</li> </ul>
Power	
<ul style="list-style-type: none"> <li>56V PoE+</li> </ul>	<ul style="list-style-type: none"> <li>&lt;21W (Max Tx power, full data traffic)</li> </ul>
Physical	Environmental
<ul style="list-style-type: none"> <li>Dimensions: 270 x 200 x 65mm (3.5 litres, exc. antenna)</li> <li>Ingress Protection: IP67</li> </ul>	<ul style="list-style-type: none"> <li>Weight : 2.8 Kgs</li> <li>Temperature: -40 to +50 °C (operating)</li> </ul>

### FURTHER INFORMATION

Please visit our website  
[www.acceleran.com](http://www.acceleran.com)

### Contact us

info@acceleran.com  
 Accelleran N.V  
 Quellinstraat 49  
 2018 Antwerp  
 Belgium

© 2017 Accelleran N.V. all rights reserved. Accelleran and the Accelleran logo are trademarks of Accelleran. All other trademarks are the property of their respective owners. Although Accelleran strives for accuracy in all its publications, this material may contain errors or omissions and is subject to change without notice. This material is provided as is and without any express or implied warranties, including merchantability, fitness for a particular purpose and non-infringement. Accelleran shall not be liable for any special, indirect, incidental or consequential damages as a result of its use.