

Accelleran E1012 CBRS Small Cells

CBRS COVERAGE AND CAPACITY IN A BOX

Accelleran E1012 CBRS Small Cell is the solution to provide LTE TDD network coverage and capacity 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 for Category A and Category B CBSD deployments.

EASE OF DEPLOYMENT

Cell 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 E1012 Small Cell supports a single 2x2 MIMO transceiver chain (cell) in the LTE B48 CBRS band (3550- 3700MHz) and can optionally integrate embedded EPC (Network-in-a-Box), Neutral Host (GWCN, MOCN) functionality or work in conjunction with Accelleran dRAX™ vRAN.



PRODUCT DESCRIPTION

The E1012 is a small form factor CBRS Small Cell, supporting by default a single cell capable of providing up to 200mW RF power per antenna port.

It is intended for deployment in enterprise, public urban and suburban scenarios as a Cat. A CBSD device, where typically a planned insideout/ 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 private LTE network. Alternatively, it can also be deployed for Fixed Wireless Access deployments in urban/suburban and in remote and rural scenarios as a Cat. B CBSD with appropriate antennas.

- Its sleek appearance makes it very suitable for any type of environments. It is truly a carrier and mission critical grade RAN network node with the skin and appearance of a normal router product.
- As a result of its flexible software architecture, the E1012 CBRS Small Cell is software upgradeable to support a roadmap of new features.
- The E1012 CBRS Small Cell offers great flexibility for backhaul connectivity via its 1Gbps Ethernet port provided as standard.

- LTE TDD 3GPP and FCC Compliant Local Area Small Cell for Cat. A and Cat. B CBSD deployments
- 1 transceiver per unit (single cell)
- 23 dBm/200 mW Tx power per antenna port (30 dBm EIRP with omni antenna)
- 2x2 MIMO
- 10 & 20MHz Channels
- B48/CBRS Band (3550-3700MHz)
- Integrated GNSS (GPS, GLONASS, BDS)
- Gigabit Ethernet Connectivity (PoE+)
- Neutral Host MOCN/MORAN/Slicing
- Optional Embedded EPC (Network-in-a-box)
- vRAN/MEC/5G Architecture Ready
- Flexible Remote Management Interface
- Interop tested with major SAS providers

• Best in Class Silicon

The beating heart of the E1000 unit is the Cavium Octeon Fusion-M CNF7130 baseband processor which delivers unequalled processing power in a single SOC. Accelleran, as a leading vendor of Cavium-based solutions, is one of the first to bring products leveraging this new generation of silicon to the small cell market.

• 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.

• Flexibility for RAN & vRAN Deployment

We have architected our solutions from the beginning with hardware platform independence in mind. The same software solution can be deployed from fully embedded RAN architecture to 5G disaggregated and virtualised vRAN.

• Best-in-Class Manageability

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

The E1012 CBRS Small Cells for Fixed Wireless Access, Private LTE or Neutral Hosts

ABOUT ACCELLERAN

The Accelleran team has been a recognized leader in the small cell industry for more than ten years. With an average experience of 20+ years each, the team offers unrivalled expertise across the full range of skillsets required for success in the challenging RAN solution market.

The E1000 is the result of the combination of Accelleran's expertise in carrier-grade RAN and vRAN software solutions with mass volume small cell HW platform manufacturers. The E1000 delivers an exceptional combination of features, performance, reliability and efficiency in the smallest form factor and offering the lowest Total Cost of Ownership in the market.

FURTHER INFORMATION

Please visit our website
www.accelleran.com

Contact us

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

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

Deploy the E1012 CBRS Small Cell in medium sized enterprise, venues, shopping centres, urban hotspots... as a Cat. A CBSD device 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 as a Cat. B CBSD device to provide coverage.

Whether you are deploying a Private LTE solution (Enterprise, Industrial IoT,...) to enable vertical markets, a Neutral Host solution to enable new business models, or a Fixed Wireless Access deployment, you will always get the most out of the shared spectrum capabilities of your network.

E1012 CBRS Small Cell Technical Specification

Single Cell LTE TDD CBRS Local Area Small Cell (Cat. A/ Cat. B CBSD)	
Transceiver Specification <ul style="list-style-type: none"> • 2 x 2 MIMO • Local Area Basestation Class (Cat. A/ Cat. B) • 23dBm/200mW RF power per antenna port • 1 transceiver per unit (single cell) 	Band Support <ul style="list-style-type: none"> • LTE TDD Band 48/CBRS (3550-3700MHz) • Other TDD and FDD Bands on request
Network Interfaces	
Layer 1 & 2 <ul style="list-style-type: none"> • 1 GBE port • IPv4/IPv6 	Layer 3 and OAM <ul style="list-style-type: none"> • S1 or SGi (Network-in-a-Box) • Type 1 OAM (TR-069/TR-196), Type 2 OAM (SNMP), Kuha, OAM Webserver, Netconf or CLI • SAS (CBRS) • Alternative OAM interface possible (XML, Proprietary)
LTE Feature Support	
<ul style="list-style-type: none"> • 3GPP Release 9 (upgradeable to Release 10) • Up to 64 active users • LTE TDD • Integrated GNSS (GPS, GLONASS, BDS) • Cell Selection/Re-selection • Radio Bearer Control 	<ul style="list-style-type: none"> • Admission Control • Scheduler & Rate Control • Neutral Host (MOCN, Slicing) • Optional Embedded EPC (Network-in-a-box) • vRAN/MEC/5G Architecture Ready • OAM (CM, PM, FM, Diagnostics) & SON
Security	
<ul style="list-style-type: none"> • 3GPP standard LTE air interface security • IPSec AES encrypted tunnels on all network connections 	<ul style="list-style-type: none"> • Trusted Platform technology embedded in silicon • Per Device PKI key pairs • Secure Boot through digital signatures of all executables
Power	
<ul style="list-style-type: none"> • 56V PoE+ 	<ul style="list-style-type: none"> • <21W (Max Tx power, full data traffic)
Physical <ul style="list-style-type: none"> • Dimensions: 270 x 200 x 65mm (3.5 litres) • Ingress Protection: IP67 	Environmental <ul style="list-style-type: none"> • Weight : 2.8 Kgs • Temperature: -40 to +50 °C (operating)

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