Product Brief

Accelleran L1000 Series Medium Range Small Cells

LTE FDD or LTE TDD MEDIUM RANGE COVERAGE IN SMALLEST FORM FACTOR

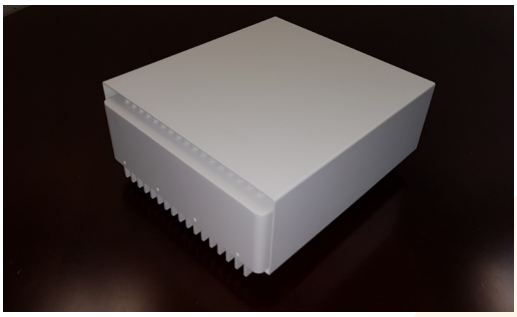
Accelleran L1000 Series Outdoor Medium Range is the solution to provide LTE FDD or LTE TDD outdoor network coverage in outdoor industrial environments, venues and suburban/rural and remote areas... providing carrier and mission-critical grade RAN engineering in the smallest (9.3 liters) form factor

EASE OF DEPLOYMENT

The L1000 Series Outdoor Medium Range is designed to be easily and flexibly deployed by a normal user by just connecting to the backhaul and power source. Its Plug and Play capabilities do the rest.

LOWEST TCO

For lowest cost solution the L1000 Series Outdoor Medium Range 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). The leading edge RF frontend technology enables the lowest TCO in the market for a product of its class.



- LTE FDD or LTE TDD 3GPP Compliant Medium Range Small Cells (Cat-B CBRS)
- 1 transceiver per unit (single carrier)
- 40 dBm/10 W Tx power per antenna port
- 2x2 MIMO
- 5, 10, 15 & 20MHz Channels (10/20 CBRS)
- TDD Bands 38, 40, 41, 42, 43, B48/CBRS*
- FDD Bands 1, 3, 7, 14, 28, 68 (Other bands on request)
- Integrated GNSS (GPS, GLONASS, BDS)
- Gigabit Ethernet/SFP Connectivity
- Optional Embedded EPC (Network-in-a-Box)
- Neutral Host MOCN/MORAN/Slicing
- vRAN/MEC/5G Architecture Ready
- Flexible Remote Management Interface

PRODUCT DESCRIPTION

The L1000 Series is a small form factor Medium Range LTE FDD or LTE TDD Small Cell, supporting by default a single cell capable of providing up to 10W RF power per antenna port with a 5W version also available.

It is intended for deployment to increase the available coverage for mobile or FWA in outdoor suburban, rural and remote (industrial) 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 outdoor router product.

- As a result of its flexible software architecture, the L1000 Series Outdoor is software upgradeable to support a roadmap of new features.

- As a result of the use of a patent pending industry leading frontend from Allen Vanguard Wireless, the L1000 product design delivers high output power, low power consumption, small size and high efficency.

- The L1000 Series Outdoor offers great flexibility for backhaul connectivity via its 1Gbps Ethernet port and SFP module.

- **Best in Class Silicon**

The beating heart of the L1000 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 L1000 Series Medium Range Small Cells for Suburban, Rural and Remote markets

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 L1000 is the result of the combination of Accelleran's expertise in carrier-grade RAN and vRAN software solutions with Allen Vanguard Wireless leading edge Radio Frequency Front End technology. The L1000 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.

Mode	Band	Product
TDD	B42	L1010
	B43	L1011
	B48/CBRS*	L1012
	B38/41	L1013
	B40	L1014
FDD	B7	L1020
	B3	L1021
	B1	L1022
	B14/28/68	L1023
Other bands on request		

Deploy the L1000 Series Outdoor Medium Range in outdoor venues, rural, suburban and remote (industries, special events, public safety...) scenarios to provide coverage. Whether you are deploying an isolated remote solution for your verticals or an integrated single layer network you will always get the most out of the licensed and lightly licensed spectrum capabilities of your network.

L1000 Series Technical Specification

Single Cell LTE FDD or LTE FDD Medium Range Small Cells

Transceiver Specification

- 2 x 2 MIMO
- Medium Range Basestation Class
- 40dBm/10W RF power per antenna port
- 1 transceiver per unit (single carrier)

Band Support

- LTE FDD Bands 1, 3, 7, 14, 28, 68
- LTE TDD Bands 38, 40, 41, 42, 43, 48/CBRS*
- Other FDD and TDD Bands on request

*: B48/CBRS limited to 47dBm/EIRP

Network Interfaces

Layer 1 & 2

- 1 GBE port
- 1 Pluggable SFP port (Optical, Coax)
- IPv4/IPv6

Layer 3 and OAM

- S1 or SGi (Network-in-a-Box)
- Type 1 OAM (TR-069/TR-196), Type 2 OAM (SNMP), Kuha, OAM Webserver or CLI SAS (CBRS)
- Alternative OAM interface possible (XML, Netconf, Proprietary)

LTE Feature Support

- 3GPP Release 9 (upgradeable to Release 10)
- Up to 64 active users
- LTE FDD or LTE TDD
- Integrated GNSS (GPS, GLONASS, BDS)
- Cell Selection/Re-selection
- Radio Bearer Control
- 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

- 3GPP standard LTE air interface security
- IPSec AES encrypted tunnels on all network connections
- Trusted Platform technology embedded in silicon
- Per Device PKI key pairs
- Secure Boot through digital signatures of all executables

Power

- 28 VDC - Others on request
- <58W (Max Tx power, full data traffic)

Physical

- Dimensions: 298 x 246 x 127 mm (9.3 liters)
- Ingress Protection: IP67

Environmental

- Weight : 9.6 Kgs
- Temperature: -20 to +50ºC (operating)

FURTHER INFORMATION

Please visit our website
www.accelleran.com

Contact us

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