

CBRS Small Cell

LBSC-A3

LINDSAY
BROADBAND

Lindsay's LBSC-A3 device is a small form factor CBRS small cell, supporting by default a single cell capable of providing up to 200 mW 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 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 centers, urban hotspots, etc. 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.



LBSC-A3
(front angled view)

FEATURES

- LTE TDD 3GPP & FCC compliant local area small cell for Cat. A & 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 & 20 MHz channels
- B48/CBRS band (3550-3700 MHz)
- 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
- Its sleek appearance makes it very suitable for any type of environment. 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 LBSC-A3 CBRS small cell is software upgradeable to support a roadmap of new features
- The LBSC-A3 CBRS small cell offers great flexibility for backhaul connectivity via its 1 Gbps Ethernet port provided as standard
- Best-in-Class Silicon: The beating heart of the LBSC-A3 unit is the Cavium Octeon Fusion-M CNF7130 baseband processor which delivers unequalled processing power in a single SOC. This is one of the first products leveraging this new generation of silicon in 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 nines" 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 virtualized vRAN
- Best-in-Class Manageability: We understand the increasing demands for real-time 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
- CBRS Coverage & Capacity in a Box: LBSC-A3 CBRS small cell is the solution to provide LTE TDD network coverage and capacity in medium-sized office environments, venues, shopping centers, urban/suburban/rural and remote areas, etc. providing carrier and mission-critical grade RAN engineering in a small 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 a PoE/Ethernet cable. Its plug and play capabilities do the rest
- Lowest Cost: For lowest cost solution the LBSC-A3 small cell supports a single 2x2 MIMO transceiver chain (cell) in the LTE B48 CBRS Band (3550- 3700 MHz) and can optionally integrate embedded EPC (Network-in-a-Box), neutral host (GWCN, MOCN) functionality or work in conjunction with dRAX™ vRAN
- Deploy the LBSC-A3 CBRS small cell in medium-sized enterprise, venues, shopping centers, urban hotspots, etc. 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, etc.) 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



SPECIFICATIONS

Parameter	Specification
Single Cell LTE TDD CBRS Local Area Small Cell (Cat. A /Cat. B CBSD)	
Transceiver	2 x 2 MIMO
	Local area basestation class (Cat. A/Cat. B)
	23 dBm/ 200 mW RF power per antenna port
	1 transceiver per unit (single cell)
Band Support	LTE TDD band 48/CBRS (3550-3700 MHz) ⁽¹⁾
	Other TDD & FDD bands available on request

Network Interfaces

Layer 1 & 2	1 GbE port
	IPv4/IPv6
Layer 3 & OAM	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

3GPP Release 9 (upgradable to release 10)
Up to 64 Active Users
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, Environmental & Physical

Input Voltage	56 V PoE+
Power Consumption (Max. TX power, full data traffic)	< 21 W
Operating Temperature	-40 °C to +50 °C (-40 °F to +122 °F)
Ingress Protection	IP67
Dimensions (H x W x D)	7.9"H x 10.6"W x 2.6"D (20.0H x 27.0W x 6.5D cm)
Weight	6.2 lb (2.8 kg)

NOTE:

(1) Industry certification may be a requirement in your area

ORDERING INFORMATION

Part #	Description
LBSC-A3	CBRS small cell, LTE TDD band 48/CBRS ⁽¹⁾

NOTE:

(1) Other bands available upon request. Contact factory for details