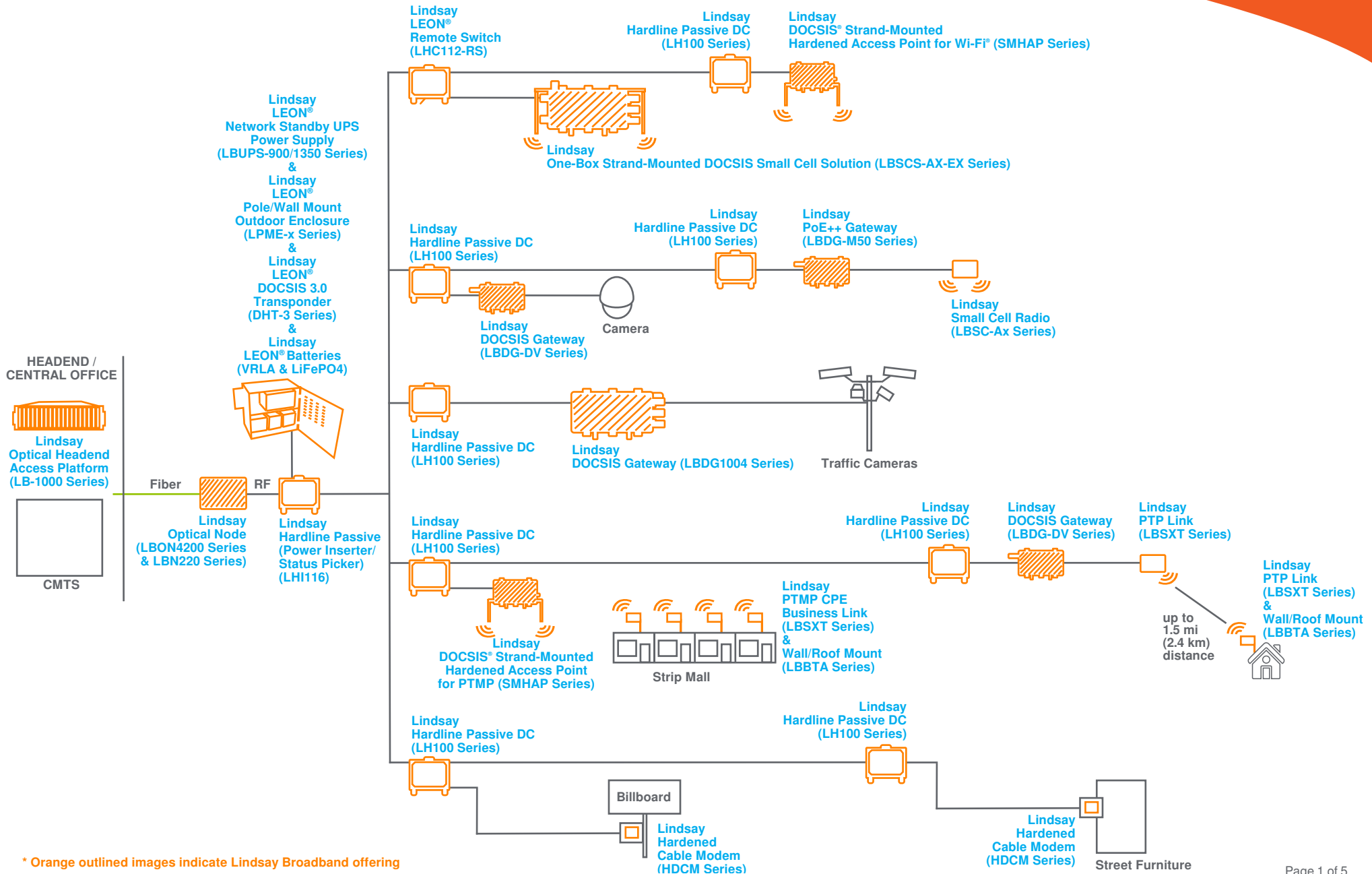


HFC BUSINESS CONNECTIVITY



* Orange outlined images indicate Lindsay Broadband offering



Lindsay's HFC business connectivity solutions provide new revenue streams for operators by using existing infrastructure to provide backhaul and power to a wide range of IP devices. By coupling the signal from the outside plant (OSP) with our 100 series of hardline passives, Lindsay has engineered 48 VDC/90 VAC power outputs ranging from 20 W to up to 400 W. HFC powering can support DOCSIS®, optical or PON backhaul. Lindsay's solutions are hardened to extreme conditions which ensures a high quality, reliable connection that supports small cells, Wi-Fi®, IoT, security cameras, digital signage, and street furniture deployments.

OPTICAL HEADEND ACCESS PLATFORM

LB-1000 SERIES



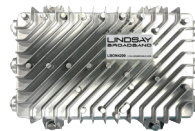
FEATURES

- High density, 3RU chassis with 18 slots for active application modules
- Plug & play hot-swappable application modules with auto-config feature
- C-Band DWDM wavelengths available upon request (C20 to C59)
- Low power consumption saves OpEx – max 360 W with fully loaded configuration
- Complete range of hot-swappable, robust, optical application modules for HFC, RFOG, & PON/video overlay related applications

Full details here: <https://lindsaybb.com/products/optical-solutions/headend-optics/optical-headend-access-platform-lb-1000-series/>

1.2 GHz 2x2 SEGMENTABLE 4-PORT OPTICAL NODE

LBON4200 SERIES



FEATURES

- Strand-mounted diecast housing
- Dual gaskets provide 15 PSI weather-tight seal
- Segmentable node with high-level output ports & low distortion
- Can be converted from a 1x4 node into a 2x2 segmentable node or vice versa
- 1.2 GHz 50 dBmV output capabilities
- 1310, 1550 & CWDM return options
- DFB return path optical transmitters
- 40-90 VAC cable plant-powered
- AGC (Automatic Gain Control)
- Diplex filters available in 42/54 & 85/102 MHz
- Onboard equalization adjusted by 1 dB stepped plug-in attenuator
- Operating Temperature: -40°C to +60°C (-40°F to +140°F)

Full details here: <https://lindsaybb.com/products/optical-solutions/optical-nodes/1-2-ghz-nodes/indoor-outdoor-1-2-ghz-2x2-segmentable-4-port-node-lbon4200/>

1.2 GHz OPTICAL NODE FOR HFC & RFOG

LBN220 SERIES



FEATURES

- High RF output level 52/48 dBmV for 1-port/2-port
- GaAs FET technology provides low distortions & power consumption
- Downstream bandwidth: 54/85/102 MHz to 1.2 GHz
- Upstream bandwidth: 5 MHz to 42/65/85 MHz
- Extended optical input level range: -8 to 0 dBm
- 1310, 1610 or CWDM; DFB burst return laser options
- Built-in microprocessor controlled AGC tracks input optical level changes
- Optical receiver input & output transmit indicator LEDs & test point
- HFC-powered 40-90 VAC or 100-240 VAC mains-powered

Full details here: <https://lindsaybb.com/products/optical-solutions/optical-nodes/1-2-ghz-nodes/indoor-outdoor-1-2-ghz-node-lbn220/>

1.2 GHz HARDLINE PASSIVE - POWER INSERTER / STATUS PICKER

LHI116



FEATURES

- Support DOCSIS® 3.1 bandwidth to 1.2 GHz
- 20 A current capacity
- 6 kV surge protection
- Low insertion loss
- 15 PSI pressure withstand
- Polyurethane coated 360 aluminum alloy housing
- Separate gaskets for weatherproofing & RFI integrity
- Shorting bars to disable power

Full details here: <https://lindsaybb.com/products/rf-solutions/hardline-passives/1-2-ghz-dcs-splitters-power-inserters-lh-100-1-2-series/>



LEON® STANDBY POWER SUPPLIES
LBUPS 900 & 1350 SERIES



FEATURES

- Industry-proven, backup power solutions for cable systems in outdoor powering applications
- Available in 900 or 1350 W
- Line-interactive ferroresonant technology
- Microprocessor controlled clean & regulated quasi-square wave output
- 3.2" (8.1 cm) color touch screen display provides user-friendly operation
- Intelligent battery management system with temperature compensation
- Excellent input & output short circuit protection
- Easily accessible front panel connections
- Hot-swappable inverter modules
- Field-selectable output voltage
- Optional DOCSIS® / EuroDOCSIS™ embedded status monitoring

Full details here: <https://lindsaybb.com/products/powering-solutions-leon/network-standby-ups-power-supplies/900-1350-w-quasi-square-wave-network-standby-ups-power-supplies-lbups-900-1350-series/>

LEON® POLE/WALL MOUNT OUTDOOR ENCLOSURE
LPME-x SERIES



FEATURES

- Pole & wall mount installations
- Durable, powder coated aluminum
- Heavy-duty battery slide tray
- Optional external breaker box
- Generator access entry
- Security lock

Full details here: <https://lindsaybb.com/products/powering-solutions-leon/network-standby-ups-power-supplies/pole-wall-mount-outdoor-enclosure-for-power-supplies-lpme/>

LEON® REMOTE SWITCH FOR SMALL CELL POWER
LHC112-RS

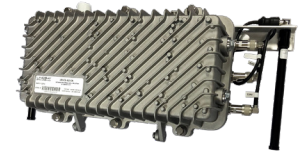


FEATURES

- Manage power & DOCSIS® backhaul to IP devices including small cell radios
- In accordance with FCC policy on human exposure to radio frequency electromagnetic fields, the LHC112-RS remote switch permits service technicians and installation crews to power down the radio from a safe distance
- Maintains RF to the HFC network with power to radio off
- Strand, wall, pole, vault or pedestal mounting
- Supports DOCSIS 3.1 bandwidth to 1.2 GHz
- 15/15/10 A (in/out/tap) current capacity with 6 kV surge protection
- Low insertion loss
- IP68 enclosure - polyurethane coated 360 aluminum alloy housing
- Separate gaskets for weatherproofing & RFI integrity
- Shorting bars to disable in/out/tap power
- Electromagnetic switch to disable tap power
- Non-destructive connector port mechanism
- SCTE standards compliant

Full details here: <https://lindsaybb.com/products/powering-solutions-leon/small-cell-power/remote-switch-for-small-cell-power-lhc112-rs/>

ONE-BOX STRAND-MOUNTED DOCSIS 3.1
SMALL CELL SOLUTION
LBSCS-Ax-Ex SERIES



FEATURES

- Industrial-hardened DOCSIS 3.1 modem
- HFC power 40/90 VAC
- ANSI-IEEE C62.41 Category B3 6 kV surge protection
- Diecast aluminum housing (clamshell)
- Operating temperature range: -40°C to +60°C (-40°F to +140°F)
- Single cell 2x24 dBm
- 2x2 MIMO
- Integrated GNSS
- Multiple band options; multiple antenna options

Full details here: <https://lindsaybb.com/products/business-connectivity/small-cell-connectivity/small-cell-radios/one-box-strand-mounted-docsis-3-1-small-cell-solution-lbcs-ax-ex/>



1.2 & 1.8 GHz HARDLINE PASSIVE - DIRECTIONAL COUPLERS

LH100 1.2 & 1.8 GHz SERIES

FEATURES

- Support DOCSIS® 3.1 & 4.0 bandwidth 5-1800 MHz
- 20/15 A current capacity
- 6 kV surge protection
- Low insertion loss
- 15 PSI pressure withstand
- Polyurethane coated 360 aluminum alloy housing
- Separate gaskets for weatherproofing & RFI integrity
- Shorting bars to disable power

Full details here: <https://lindsaybb.com/products/rf-solutions/hardline-passives/1-2-ghz-dcs-splitters-power-inserters-lh-100-1-2-series/> and <https://lindsaybb.com/products/rf-solutions/hardline-passives/1-8-ghz-dcs-splitters-power-inserters-3-ghz-upgradeable-lh-100-1-8-series/>



DOCSIS STRAND-MOUNTED HARDENED ACCESS POINT

SMHAP SERIES

FEATURES

- Diecast aluminum housing (clamshell design) with dual gaskets provide 15 PSI weatherproof seal
- Mounting Configurations: Wall, pole, vault, mast, or strand
- Temperature-cycled from -40°C to +60°C (-40°F to 140°F)
- Designed to protect against surges
- DOCSIS 3.0/3.1. Optical options available
- Forward & reverse -20 dB test points
- Modem "sweet-spotting" through diplex filters & JXP-type attenuators
- Cable plant-powered (40-90 VAC)
- Single & dual 802.11a/b/g/n/ac radio options
- Powered by Mikrotik, HP, Ubiquiti & additional options
- Omnidirectional & directional sector, panel, grid & dish antenna options
- 2x2 MIMO two spatial streams
- Supports 16 virtual service communities (SSID)
- Hotspot, point-to-point/point-to-multipoint operations

Full details here: <https://lindsaybb.com/products/business-connectivity/wi-fi-access-points/docsis-wi-fi-access-points-smhap-series/>



DOCSIS STRAND-MOUNTED GATEWAY

LBDG-DV SERIES

FEATURES

- Diecast aluminum housing (clamshell design)
- Mounting Configurations: Wall, pole, vault, mast, or strand
- 15 PSI weatherproof seal
- Temperature-cycled from -40°C to +60°C (-40°F to 140°F)
- 6 kV surge protection
- DOCSIS 2.0/3.0
- Cable plant-powered (40-90 VAC)
- HFC access at any directional coupler or power passing tap
- Weather-tight RJ45 Ethernet connector
- Coax power interface protects RF performance of HFC plant
- Passive PoE 0, 12 or 48 VDC selectable, 802.3af compatible
- Monitor & configure via SNMP agent, SSH or web browser
- Add Wi-Fi®, camera or other service-enabling device

Full details here: <https://lindsaybb.com/products/business-connectivity/hfc-poe-gateways/docsis-hfc-poe-gateways/docsis-hfc-poe-gateways-lbdg-dv-series/>



DOCSIS STRAND-MOUNTED POE++ GATEWAY

LBDG-M50 SERIES

FEATURES

- Diecast aluminum housing (clamshell design)
- Mounting Configurations: Wall, pole, vault, mast, or strand
- 15 PSI weatherproof seal
- Temperature-cycled from -40°C to +60°C (-40°F to 140°F)
- 6 kV surge protection
- DOCSIS 2.0/3.0
- Cable plant-powered (40-90 VAC)
- HFC access at any directional coupler or power passing tap
- Weather-tight RJ45 Ethernet connector
- Coax power interface protects RF performance of HFC plant
- 802.3at PoE++ (provides up to 50 W when using 4 pairs)
- Monitor & configure via SNMP agent, SSH or web browser
- Add Wi-Fi, camera or other service-enabling device

Full details here: <https://lindsaybb.com/products/business-connectivity/small-cell-connectivity/poe-docsis-gateways/poe-docsis-gateways-50-w-output-lbdg-m50-series/>



LTE FDD OR LTE TDD LOCAL AREA SMALL CELLS

LBSC-Ax SERIES

FEATURES

- 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 & 20 MHz channels
- TDD bands 38, 40, 41, 42, 43⁽¹⁾, B48/CBRS⁽¹⁾; FDD bands 3, 7 (other bands on request)
- 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

Full details here: <https://lindsaybb.com/products/business-connectivity/small-cell-connectivity/small-cell-radios/lte-fdd-or-lte-tdd-local-area-small-cells-lbsc-ax/>



EXTREME TEMPERATURE-HARDENED CABLE MODEM

HDCM SERIES

FEATURES

- IP54 rated enclosure
- Dual wideband tuners
- Supports IPv4 & IPv6
- DOCSIS/EuroDOCSIS™ 3.0 compliant
- 8x4 channel bonding
- Full-featured with high bandwidth
- Compact & economical
- Well defined LEDs clear network status display
- Tested: -40°C to +60°C (-40°F to 140°F)

Full details here: <https://lindsaybb.com/products/business-connectivity/hardened-cable-modems/small-form-factor-extreme-temperature-hardened-d3-0-hardened-cable-modem-hdcm3-0/>



DOCSIS STRAND-MOUNTED 4-PORT POE GATEWAY

LBDG1004 SERIES

FEATURES

- Diecast aluminum housing (clamshell design)
- Mounting Configurations: Wall, pole, vault, mast, or strand
- Dual gaskets provide 15 PSI weatherproof seal
- Temperature-cycled from -40°C to +60°C (-40°F to 140°F)
- 6 kV surge protection
- DOCSIS 2.0/3.0
- Cable plant-powered (40-90 VAC)
- HFC access at any directional coupler or power passing tap
- Up to 4 weather-tight RJ45 Ethernet connectors
- Coax power interface provides for easy set-up
- 4 active PoE 48 VDC or 24 VDC 802.3af & 802.3at for powering IP devices
- Monitor & configure via SNMP agent, SSH or web browser
- Optional 802.11a/b/g/n Wi-Fi access point
- Add IP camera or other service-enabling device to a distance of 328 feet (100 metres)

Full details here: <https://lindsaybb.com/products/business-connectivity/hfc-poe-gateways/docsis-hfc-poe-gateways/docsis-4-port-hfc-poe-gateways-lbdg-1004-series/>



POINT-TO-POINT / POINT-TO-MULTIPOINT CPE BUSINESS LINK

LBSXT-SQ5HPND & LBBTA

FEATURES

- Solid all-in-one design - quick & easy to mount (use Lindsay's LBBTA wall/roof mount)
- Tower-friendly, one-hand enclosure access
- 5 GHz 802.11a/n wireless onboard
- One 10/100 Ethernet port
- Built-in 16 dBi dual chain antenna
- Signal strength LED indicators on back
- USB 2.0 port, voltage & temperature monitors
- Extended L2MTU support to avoid fragmentation overhead in MPLS, QinQ, etc.

Full details here: <https://lindsaybb.com/products/business-connectivity/point-to-point-point-to-multipoint-cpe-business-link-lbsxt-sq5hpnd/>

