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OPTICAL COEXISTENCE ň Lindsay Lindsay Subscriber Optical Fiber Optic **Termination Solutions Multiport or Flexible** (LB-FTIB/FTE/TB2/TBA/TBB Series) Service Terminals 1260 (LB-MST/FST Series) ΪŇ. XGS-PON / 10G-EPON Upstream Lindsay RFoG ONU with PON Pass Through 1280 1260-1280nm (LBON520AC Series) 8 1290 **GPON ONT** î **GPON / EPON Upstream** Lindsay Lindsay 1290-1330nm Coexistence Fiber Optic WDM Module Multiport or Flexible (LBWD-x Series) Service Terminals 1330 (LB-MST/FST Series) or Lindsay ñ Lindsay CWDM Multiplexer Subscriber Optical **Compact Modules** Lindsay **Termination Solutions** (LBCC-C Series) (LB-FTIB/FTE/TB2/TBA/TBB Series) Splitter ň (LPM / LBPM / or ۶. **XGS-GPON OLT** Lindsay CWDM Multiplexer Lindsay RFoG ONU LPR Series) AGX Modules (LBON300/320AC Series) -0 0 (LBCC-AGX Series) ń 1480 **GPON OLT** GPON / EPON Downstream 旧 1500 1480-1500nm Lindsay Subscriber Optical termination Solutions 剾 ш (LB-FTIB/FTE/TB2/TBA/TBB Series) 1540 **GPON ONT** RF Video / RFoG Downstream Lindsay 1540-1560nm Lindsay 旧 Ш 1560 **Optical Headend** Fiber Optic **Access Platform** Multiport or Flexible (LB-1000 Series) Service Terminals 1575 XGS-PON / 10G-EPON Downstream (LB-MST/FST Series) 1581 1574-1581nm 1600 m m Lindsay **RFoG Upstream** Lindsay Subscriber Optical 1600-1620nm Fiber Optic termination Solutions 1620 Multiport or Flexible (LB-FTIB/FTE/TB2/TBA/TBB/ Service Terminals TB-MDU Series) (LB-MST/FST Series) & **XGS-PON ONT** for Business/Enterprise 韭 m I m

* Orange outlined images indicate Lindsay Broadband offering

OPTICAL COEXISTENCE



Multiple services can be delivered to subscribers over the same fiber optic cable. Wavelength division multiplexing (WDM) technology allows for the multiplexing of a number of optical signals (wavelength) onto a single optical fiber. Lindsay Broadband's LBWD series of coexistence modules are designed to enable different technologies to coexist on the same network. These modules allow the implementation of RFoG or CATV services alongside PON access network technologies including EPON or GPON, and 10G EPON or XGS-PON. The bi-directional coexistence WDM module is integrated into the network at or near the headend network equipment. Occasionally coexistence modules might also be needed at subscriber locations. Lindsay also offers customized packaging, multiple circuits, custom wavelengths, and connector configurations to meet your specific requirements. 10-CHANNEL CWDM / 5 & 18-CHANNEL CCWDM MULTIPLEXER

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

COEXISTENCE WDM MODULES LBWD SERIES

FEATURES

- Low insertion loss
- High isolation
- Low Polarization Dependent Loss (PDL)
- · Compact design
- · Good channel-to-channel uniformity
- Wide Operating Wavelength: 1260-1620 nm
- Operating Temperature: -40°C to +70°C (-40°F to +158°F)
- · High reliability & stability
- Full details here: https://lindsaybb.com/products/optical-solutions/passive-optical-solutions/ fwdm-device-lwd-lbwd/

- Low Polarization Dependent Loss (PDL)
- Good channel-to-channel uniformity
- Optional integrated 1310 nm combiner port for 10-channel CWDM

Telcordia GR-1209-CORE-2001 & GR-1221-CORE-1999 compliant

Full details here: https://lindsaybb.com/products/optical-solutions/passive-optical-solutions/

Optional Downstream & Upstream Test Points: -20 dB for 10-channel CWDM

10-CHANNEL CWDM / 5 & 18-CHANNEL CCWDM MULTIPLEXER

High reliability & stability

COMPACT MODULES

Low Polarization Dependent Loss (PDL)

Wide Operating Wavelength: 1260-1620 nm

cwdm-multiplexer-compact-modules-lbcc-c/

Good channel-to-channel uniformity

LBCC-C SERIES

High isolation

Low insertion loss

Compact design

RoHS compliant

AGX MODULES

FEATURES

LBCC-AGX SERIES

Low insertion loss

High isolation

High reliability & stability

FEATURES

- Telcordia GR-1209-CORE-2001 & GR-1221-CORE-1999 compliant
- RoHS compliant
- Full details here: <u>https://lindsaybb.com/products/optical-solutions/passive-optical-solutions/</u> <u>cwdm-multiplexer-agx-modules-lbcc-agx/</u>







PLC OPTICAL SPLITTERS LPM/LBPM/LPR SERIES

FEATURES

- Low insertion loss
- Low Polarization Dependent Loss (PDL)
- · Good channel-to-channel uniformity
- Wide operating wavelength
- High reliability & stability
- Telcordia GR-1209-CORE & GR-12221-CORE compliant
- RoHS compliant
- Full details here: <u>https://lindsaybb.com/products/optical-solutions/passive-optical-solutions/plc-optical-solutions/</u>
- https://lindsaybb.com/products/optical-solutions/passive-optical-solutions/plc-optical-s
- https://lindsaybb.com/products/optical-solutions/passive-optical-solutions/plc-optical-s

FIBER OPTIC MULTIPORT SERVICE TERMINALS LB-MST/LB-P2P-MST SERIES

FEATURES

- Available in a variety of options (terminated, unterminated, point-to-point or MPO indexing)
- Hardened connectors are factory-terminated & environmentally sealed for use in optical drop cable deployments
- Plug-and-play adapter ports ensure rapid cable installation
- Incorporated hardened connector technology that is designed to withstand the rugged outside plant (OSP) environment
- IP68 rated, high quality, high performance connectors
- Flexible Choice of Ports: 2, 4, 6, 8, 12 or 16
- Mounting Configurations: Aerial, wall or buried
- Compatible with industry standard drop cables & connectors
- Option of factory spliced feed cable in MST or a female connector on MST for feed cable
- Full details here: <u>https://lindsaybb.com/products/optical-solutions/passive-optical-solutions/</u> <u>fiber-access-terminals/fiber-optic-multiport-service-terminals-lb-mst-lb-p2p-mst/</u>



FIBER OPTIC MINI FLEXIBLE SERVICE TERMINALS LB-FST SERIES

FEATURES

- Available in 1:2, 1:4 or 1:8-way splitter options
- Provides moisture & dust protection for use in harsh industrial environments
- · IP68 protection, salt mistproof, humidity-proof, dustproof
- Drastically reduces field splicing with a predetermined loss at each waterproof tether access point
- Compatible with legacy hardened connector systems
- Utilizes traditional field installation techniques for aerial, below ground (vault) & duct applications
- Reduces installation time by as much as 50% per network access point
- 100% optically tested to ensure quality performance assemblies
- Allows for easy installation in areas where moisture can be a problem (eg. pedestals, vaults, congested pits)
- Full details here: <u>https://lindsaybb.com/products/optical-solutions/passive-optical-solutions/</u> <u>fiber-access-terminals/fiber-optic-mini-flexible-service-terminals-lb-fst/</u>

ULTRA-COMPACT INDOOR SUBSCRIBER TERMINATION SOLUTION LB-FTIB SERIES

FEATURES

- Transitions from outdoor incoming fiber to indoor fiber drops
- Handles up to 2 SC adapters
- Ultra-compact size



Full details here: <u>https://lindsaybb.com/products/optical-solutions/subscriber-termination-solutions/ultra-compact-indoor-subscriber-termination-solution-lb-ftib/</u>





2 SC ADAPTERS SUBSCRIBER TERMINATION SOLUTION LB-FTE SERIES

FEATURES

- Wall-mounted indoor or outdoor closure options
- Compact size
- · Will accommodate 1 or 2 fiber splices
- Fiber management & routing to ensure bend radius of fibers is greater than 30 mm
- 2 SC adapter slots, splice protection sleeve & fiber storage space
- Supports splice or mechanical splice
- Optional security lock available
- IP66 rating for ingress protection (dust & water)
- Flame retardant compliance with GB5169.7A

Full details here: https://lindsaybb.com/products/optical-solutions/subscriber-terminationsolutions/compact-indoor-outdoor-subscriber-termination-solutions/2-sc-adapterssubscriber-termination-solution-lb-fte/

2 SC OR 4 LC ADAPTERS SUBSCRIBER TERMINATION SOLUTION LB-TB2 SERIES

FEATURES

- Wall-mounted indoor or outdoor closure options
- Compact size
- · Will accommodate 1 or 2 fiber splices
- Fiber storage & management under splice tray to ensure bend radius of fibers is greater than 30 mm
- Accommodates up to 2 SC adapters or 4 FC adapters
- Supports splice or mechanical splice
- Can be ordered with adapters & pigtails installed
- IP66 rating for ingress protection (dust & water)
- Flame retardant compliance with GB51698.7A
- Full details here: <u>https://lindsaybb.com/products/optical-solutions/subscriber-termination-solutions/compact-indoor-outdoor-subscriber-termination-solutions/2-sc-or-4-lc-adapters-subscriber-termination-solution-lb-tb2/</u>

UP TO 16 SC ADAPTERS SUBSCRIBER TERMINATION SOLUTIONS LB-TBA/TBB SERIES

FEATURES

- Compact sizes
- 2 inlet ports, 8 or 16 output ports 8-16; 8-16 outlets for SC adapter
- Can be ordered with adapters/pigtails or PLC splitter & adapter/pigtails
- Can hold 1×4, 1×8, 1×16, 2×4, 2×8 PLC splitter
- · Splice area with fiber storage & management under hinged adapter tray
- · IP66 rating for ingress protection (dust & water)
- Ultraviolet (UV)-resistant
- Wall mount & pole mount applications
- Full details here: <u>https://lindsaybb.com/products/optical-solutions/subscriber-termination-solutions/compact-indoor-outdoor-subscriber-termination-solutions/up-to-16-sc-adapters-subscriber-termination-solutions-lb-tba-tbb/</u>

INDOOR/OUTDOOR COMPACT FIBER OPTIC MDU DISTRIBUTION TERMINAL BOXES LB-TB-MDU SERIES

FEATURES

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- 2 inlet ports, 8 or 16 output ports
- Can be ordered with 1x8 or 1x16 PLC splitter installed. Other PLC splitters can also be installed. Contact factory for special requests
- · High quality impact resistance material, PC + ABS with UL94-V0 fire retardant feature
- UV protected
- · Clamping for feeder cable & drop cable
- · Splice area, fiber storage & management under hinged adapter tray
- Double protective cover for protecting the fibers, splice sleeves & splitters
- Mounting Configurations: Wall or pole
- Fiber bend radius control more than 40 mm (1.6")
- Full details here: https://lindsaybb.com/products/optical-solutions/subscriber-terminationsolutions/compact-indoor-outdoor-subscriber-termination-solutions/indoor-outdoorcompact-fiber-optic-mdu-distribution-terminal-boxes-lb-tb-mdu/









1.2 GHz CUSTOMER PREMISE RFoG ONU WITH 1G/10G PON PASS THROUGH PORT LBON520AC SERIES

FEATURES

- Input Optical Wavelength: 1550 nm
- Optical AGC: -6 to +2 dBm
- Thermally stable DFB burst-mode laser
- Transmit Wavelength: 1610 nm
- Downstream Bandwidth: 54/85/102/258 MHz to 1218 MHz
- Upstream Bandwidth: 5 MHz to 42/65/85/204 MHz
- Output RF Level: 20 dBmV/CH at 1002 MHz (typ.)
- RF Bi-directional Test Point: -20 dB
- Pwr-On, Opt I/P, Opt TX LED indicators
- Full details here: https://lindsaybb.com/products/optical-solutions/rfog-solutions/cperfog-onus-with-1g-10g-pon-pass-through-port/1-2-ghz-cpe-onu-with-1g-10g-pon-passthrough-port-lbon520ac/

1.2 GHz & 1 GHz CUSTOMER PREMISE RFoG ONUs LBON320/300 AC SERIES



- **FEATURES**
- Input Optical Wavelength: 1550 nm
- Optical AGC: -6 to +2 dBm
- Thermally stable DFB burst-mode laser
- Transmit Wavelengths: 1310 nm, 1610 nm or CWDM
- Downstream Bandwidth: 54/85/102/258 MHz to 1218 MHz (54/85/102 MHz to 1002 MHz for LBON300AC)
- Upstream Bandwidth: 5 MHz to 42/65/85/204 MHz (to 42/65/85 MHz for LBON300AC)
- Full details here: https://lindsaybb.com/products/optical-solutions/rfog-solutions/cpe-rfogoptical-network-units-onus/1-2-ghz-cpe-rfog-onu-lbon320ac/
- https://lindsaybb.com/products/optical-solutions/rfog-solutions/cpe-rfog-optical-networkunits-onus/1-ghz-cpe-rfog-onu-lbon300ac/



2-2035 Fisher Dr, Peterborough, ON K9J 6X6 Canada +1.705.742.1350 • 1.800.465.7046 • info@lindsaybb.com • lindsaybb.com



