



# Multi-Dwelling Unit Solutions Guide

## Business & Residential

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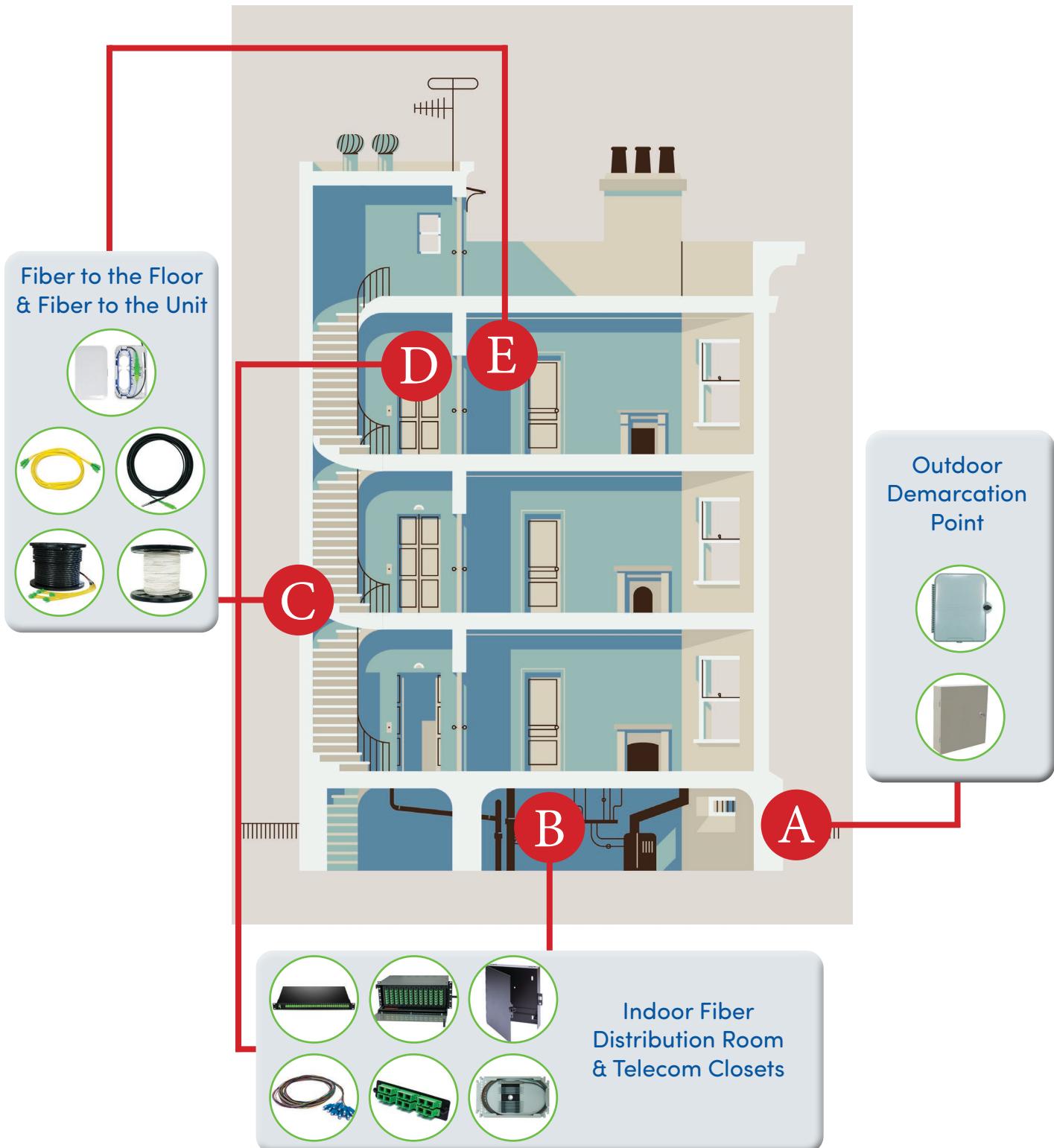
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*For ordering information and part number details, please contact our sales team.*

*BABA-compliant parts must be requested at the time of quote or order.*

# General MDU Network Overview

MDU networks require a range of solutions installed throughout the building to deliver fast, reliable connections to every unit. As your trusted partner for fiber optic cabling and connectivity, NetSource offers a comprehensive suite of products to support your entire project. From outdoor network entry points, to fiber distribution rooms, floor-by-floor connections, and final subscriber access, our products are designed to support every stage of your network buildout.



# MDU Enclosures

## Outdoor Demarcation/Network Entry Point

Outdoor enclosures serve as the primary handoff point for the network to enter the building. These units are built to safeguard critical connections, manage incoming fiber, and provide organized access for service providers to enable seamless installation and future maintenance. Positioned at the exterior of the property, they help establish a secure, reliable starting point for in-building distribution.

### Outdoor - MDU Enclosures

- Fiber Capacity: Up to 48 ports
- Splicing Method: Pigtail or direct splicing
- Splitter Options: PLC splitters (1x2, 1x4, 1x8, 1x16)
- Rating: IP66
- Installation: Wall or pole mount



### Outdoor - Exterior Distribution Cabinets



- Fiber Capacity: Up to 144 ports
- Splicing Method: Pigtail or direct splicing
- Splitter Options: PLC splitter (1x2, 1x4, 1x8, 1x16, 1x32, 1x48)
- Rating: IP65 rated
- Material: 16-Gauge CRS
- Installation: Wall-mount



# MDU Enclosures

## Indoor Fiber Distribution Room & Telecom Closet

Installed inside the building, typically in a fiber distribution room or telecom closet, rack mount and wall mount enclosures provide a secure, organized solution for managing fiber connections. These enclosures protect network components and simplify routing to each floor and subscriber. Their flexible designs help support clean cable management and efficient system maintenance.

### Indoor - Rack Mount Enclosures



- Fiber Capacity: Up to 288 ports
- Splice Capacity: 144
- Sizes: 1RU, 2RU, 4RU, or 6RU
- Material: 16-Gauge CRS
- Splitter Options: PLC splitter (1x2, 1x4, 1x8, 1x16, 1x32, 1x48)
- Configuration: Available pre-wired with OSP or Indoor/Outdoor cable (stub tail) or 900µm pigtails



### Indoor - Wall Mount Enclosures



- Fiber Capacity: Up to 96 ports
- Splice Capacity: 48
- Splitter Options: PLC splitter (1x2, 1x4, 1x8, 1x16, 1x32, 1x48)
- Material: 16-Gauge CRS
- Configurations: Available pre-wired with 900µm pigtails



# MDU Connectivity Solutions

## Fiber Distribution Hardware

Fiber distribution components are installed within the building to manage, route, and protect connections as the network branches out through the MDU. Found in fiber distribution rooms or telecom closets, these components – including splitters, pigtails, adapter panels, and splice trays – help maintain organized, efficient, and scalable network infrastructure.

### Adapter Panels & Splice Trays

- Fiber Capacity: 6 or 12 fibers (LGX footprint)
- Connector Type: LC, MTP®, SC, and ST
- Color: Adapter housing follows TIA/EIA-568-C.3 color scheme
- Splice Tray Capacity: Up to 24 fibers



### Rack Mount Splitter Patch Panels & Cassettes



- Fiber Capacity: Up to 32 ports per 1RU
- Material: 16-Gauge CRS
- Configurations: PLC splitter (1x2, 1x4, 1x8, 1x16, 1x32)

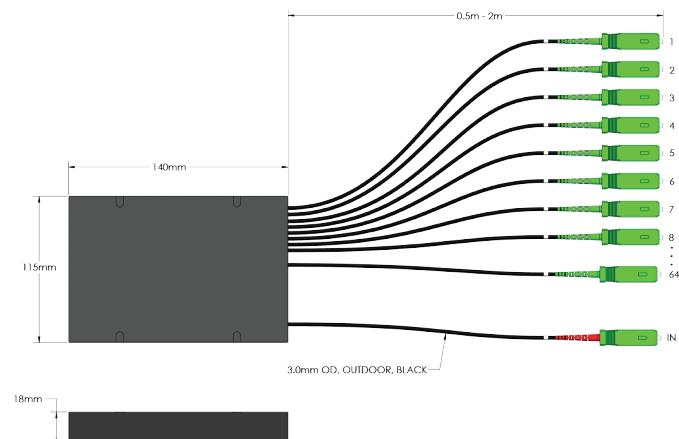
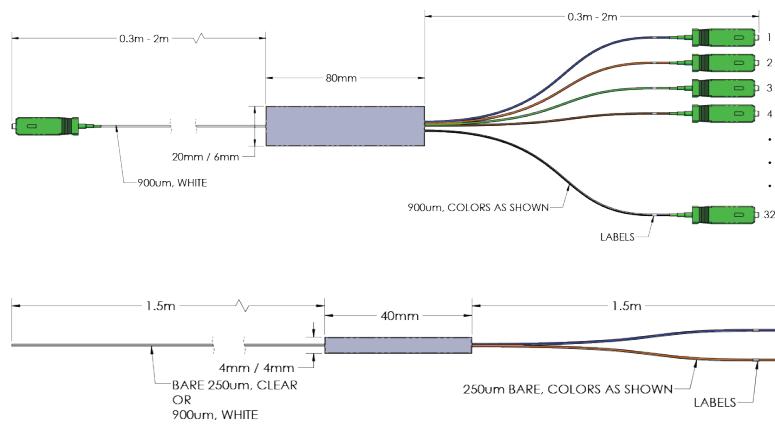


# MDU Connectivity Solutions

## Fiber Distribution Cabling

### PLC Splitters - Bare, Connectorized, & Ruggedized

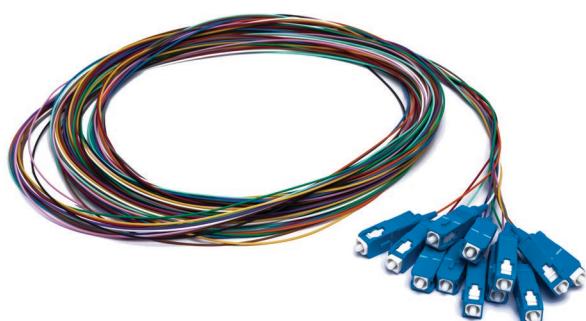
- PLC Splitters: 1x2, 1x4, 1x8, 1x16, 1x32, and 1x64
- Connector Types: SC or LC with UPC or APC polish
- Fiber: 250µm, 900µm, 2mm, or 3mm
- Telcordia GR-1209/1221 and GR-326 Compliant



### Pigtail Cables



- Fiber Count: Up to 24 fibers
- Connector Type: SC or LC, UPC or APC polish
- Fiber OD: 250µm, 900µm, or Ribbon



# MDU Connectivity Solutions

## Fiber to the Floor

Fiber optic cable assemblies inside MDU walls enable connectivity from central distribution points to each floor or unit. Depending on design, fiber-to-the-floor solutions can include pre-terminated trunk cables, fusion-splicing with ruggedized bulk reels, or pushable/pullable jumpers for a low-profile footprint. NetSource's fiber connectivity products support quick, reliable runs throughout MDUs, reducing labor costs and simplifying installation.

### Ruggedized Bulk Fiber Cables



- Fiber Type: B3 glass (Bend-insensitive ClearCurve®), A2 glass (available upon request)
- Jacket OD: 900µm buffered fiber incorporates an Easy Strip coating
- Inquire with our sales team for part number information



B3 Glass Specifications	
Fiber Count	1 or 2
Fiber Buffer	900um Easy Strip
Strength Members	Aramid Yarn
Overall Jacket Material	PVC or Plenum
Nominal Outer Diameter (mm)	3mm
Bend Radius (1 Turn) (mm)	5mm
Weight (lbs/km)	17 lbs/km
Storage Temperature	-40°C to 70°C
Operating Temperature	-40°C to 70°C
Fiber Type	A3/B3
Core Size	9/125
Attenuation (MAX)	0.4dB/km@1550nm
Mode-Field Diameter (1310/1550nm)	8.6/9.65um
Numerical Aperture	0.14
Link Length @1550 (1GB/s/10GB/s)	10,000mtr/5,000mtr

### Pre-Terminated Multi-Fiber Trunks



- Fiber Count: Up to 288 fibers
- Connector Type: SC or LC and UPC or APC polish
- Breakouts: 900µm, 2mm, or 3mm
- Cable Type: Indoor, Indoor/Outdoor, or OSP



# MDU Connectivity Solutions

## Fiber to the Floor

### Pullable & Pushable Fiber Cables



- Fiber Type: A2 or B3 glass
- Installation: Requires only a 3/8" hole to insert cable via built-in pulling eye/pushable dust cap
- Eliminates in-field splicing and reduces installation cost



### Indoor/Outdoor Fiber Jumpers



- Fiber Type: A1 and B3 Glass
- Jacket Color: Black or White
- Lengths and Configurations: Available per request



# Access To The Subscriber

## Fiber to the Unit

This final stage of the network buildout delivers connectivity directly to each resident. Products such as indoor/outdoor fiber jumpers, indoor fiber patch cords, copper patch cords, and point of entry (POE) enclosures complete the connection from the building's network backbone to individual subscribers. These assemblies support clean, reliable terminations and help maintain organized, secure connections within each unit of the MDU.

### Indoor Fiber Patch Cords

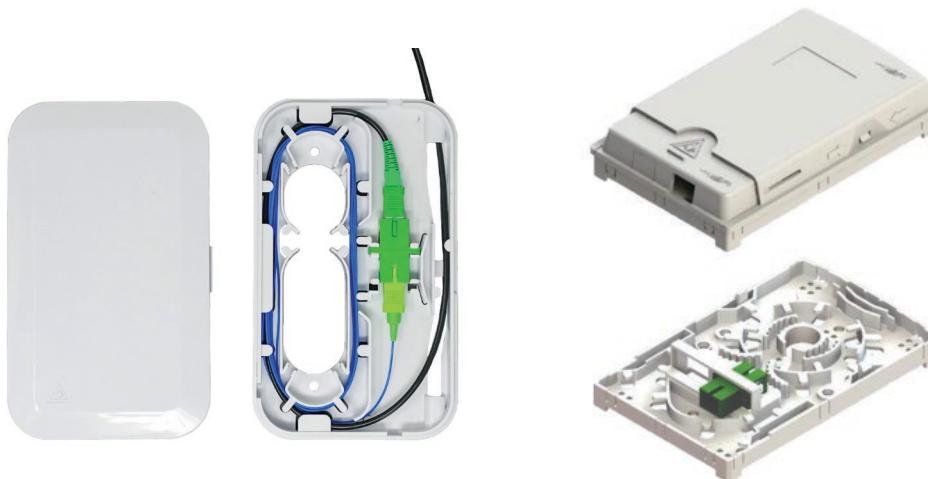


- Fiber Count: 1-2 fibers
- Cable Type: Indoor duplex (ZIP), Simplex, or DIB-style
- Connector Type: SC or LC with a APC or UPC polish
- Cable OD: 1.6mm, 2mm, 3mm, or 4.8mm



### Point-of-Entry Enclosures (POE)

- Fiber Capacity: 1-2 SC/APC or 1 LC Duplex or 4 LC connections
- Rating: IK9 rated for indoor use
- Configurations: Available pre-wired, with adapters only, or blank



# Access To The Subscriber

## Fiber to the Unit

### Copper Patch Cords



- Copper Type: CAT6 and CAT6A
- Cable Type: Shielded and Non-Shielded
- Standard or Mini Patch
- Color: Multiple jacket colors available upon request





Insertion Loss			
Characteristics	Standard	Singlemode	
		UPC: LC & SC	APC: LC, SC & OptiTap®
Insertion Loss (Maximum)	TIA 568-C.3	.75 dB	.75 dB
	NetSource, Inc. (typical)	≤0.20 dB	≤0.20 dB
Return Loss (Minimum)	TIA 568-C.3	-26 dB	-26 dB
	NetSource, Inc.	≤-58 dB	≤-65 dB

Testing Standards
TIA-445-171 Insertion Loss
TIA-455-107 Return Loss
IEC-61300-3-35 Endface

Don't settle for anything less than excellence. Upgrade your business with NetSource's MDU solutions and join the many installers who have experienced the difference our products make. Our solutions are RoHS and REACH compliant and manufactured in the USA, giving you confidence in quality and reliability. To get started, please contact our sales team for ordering information and part number details.



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