





## **Harsh Environment Products**

FTTA, DAS, & Cell Tower

### Welcome.

For over 25 years NetSource has provided quality custom cable assemblies and components to the telecom, data and security industries.

Today the emerging DAS and FTTx markets are creating new opportunities for us to offer the same services and responsiveness that we have become known for. Our 60,000 square foot facility is ideally suited to accommodate the various products needed by these industries.





### **Proudly Assembled in the USA**











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### THE NETSOURCE ADVANTAGE

#### Cable Assemblies for Harsh Environments

### **Sourcing the Proper Components**

All raw materials used are sourced directly from industry leading manufacturers. Products are selected to insure excellent protection and resistance to corrosion, vibration, and temperature fluctuation.

#### **Optimum Performance**

Our strict internal processes combined with the best industry cable and connectors results in a superior finished product. All assemblies are tested at the factory and shipped with test results.

### **Cost Savings**

Pre-terminated assemblies allow for ease of installation and rapid deployment. Pre-terminated assemblies also reduce costs associated with tooling, technician training, on-site scrap, and clean up.

#### Customization

Pre-terminated assemblies are made to specific customer requirements. Cable assemblies can be supplied with virtually any fiber type, strand count, and connector type. Customized labeling, breakouts, and packaging are also available.

OPTICAL PERFORMANCE CHART				
		INSERTION LOSS (dB)		RETURN LOSS (dB)
FIBER TYPE	FIBER INTERFACE	TYP	MAX	
MULTIMODE	LC / SC	0.20	0.25	25dB
	MPO®	0.25	0.35	30dB
	ODC STYLE®	NA	NA	
CIDED TYPE	EIDED INTEDEACE	INSERTION LOSS (dB)		RETURN LOSS (dB)
FIBER TYPE	FIBER INTERFACE	TYP	MAX	
SINGLE MODE	LC / SC - UPC	0.20	0.25	57dB
	SC / LC - APC			65dB
	MPO®	0.60	0.50	60dB
	ODC® STYLE	0.30	0.60	50dB
	OptiTip®	0.35	0.65	
	OptiTap®	0.20	0.25	



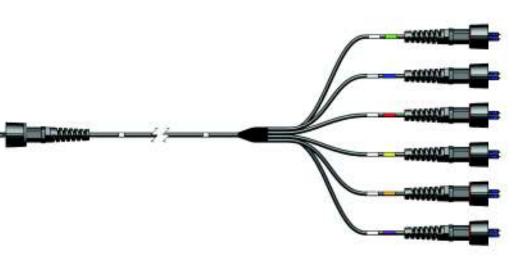


### IP68 LC/SC/MPO

### **FEATURES**

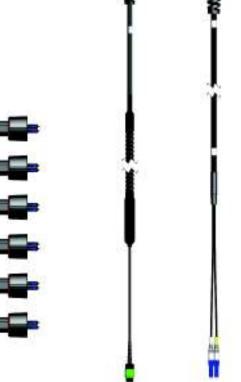
- Fiber interface: Simplex SC, Duplex LC, and 12/24F MPO
- Multimode and singlemode
- Waterproof, dustproof, and corrosion resistant
- Low cost and easy to use
- One hand bayonet mating designed in accordance with IEC60603-7
- Color coded Safe Lock to prevent unintended disconnect
- Waterproof dust caps available
- Easy extension with in-line adapter
- Cable types: Armored, I/O, TINI, and Tactical

PERFORMANCE SPECIFICATIONS		
HOUSING MATERIAL	UV / CHEMICAL / OZONE / REISISTANCE	
MATING DURABILITY	100 mating cycles	
MECHANICAL PERFORMANCE : PULL FORCE (LBS)	25 KG	
IP RATING	IP68	
OPERATING TEMPERATURE IEC 61200-2-22	-40°C / +70°C	
ODVA COMPATABLE	YES	
FLAMABILITY RATING	UL94V-0	
SALT MIST: IEC 61300-2-26	PASSED	
VIBRATION: IEC 61300-2-1	PASSED	
SHOCK: IEC 61300-2-9	PASSED	









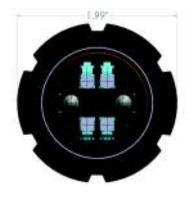
### IP68 LC/SC/MPO with Copper

The unique design of our weather resistant connectors allows for various configurations to help accommodate your specific needs and size requirements

#### **FEATURES**

- Fiber interface: Simplex SC, Duplex LC, and 12/24F MPO
- Multimode and singlemode
- Waterproof, dustproof, and corrosion resistant
- Low cost and easy to use
- One hand bayonet mating designed in accordance with IEC60603-7
- Color coded Safe Lock to prevent unintended disconnect
- Waterproof dust caps available
- Easy extension with in-line adapter
- Cable types: Armored, I/O, TINI, and Tactical
- 6/8/10AWG

PERFORMANCE SPECIFICATIONS		
HOUSING MATERIAL	UV / CHEMICAL / OZONE / REISISTANCE	
MATING DURABILITY	100	
MECHANICAL PERFORMANCE : PULL FORCE (LBS)	25 KG	
IP RATING	IP68	
OPERATING TEMPERATURE IEC 61200-2-22	-40°C / +70°C	
ODVA COMPATABLE	YES	
FLAMABILITY RATING	UL94V-0	
SALT MIST : IEC 61300-2-26	PASSED	
VIBRATION : IEC 61300-2-1	PASSED	
SHOCK: IEC 61300-2-9	PASSED	



IP-25
4X LC CONNECTORS
2X COPPER



IP-21
2X LC CONNECTORS
2X COPPER



ISPN 4 OR 6 FIBER 1.25 LC FERRULLE



IP-5 1 FIBER SC 12 FIBER MPO

### **FullAXS®**

### **FEATURES**

- 2 Fiber Duplex LC interface
- Multimode and Singlemode
- Waterproof, dustproof, and corrosion resistant
- One hand mating bayonet style
- Bulkhead cutout allows for removal of transceiver through the bulkhead (no need to open remote radio head for transceiver replacement)
- Cable Types: Armored, I/O, TINI, Tactical

### **PERFORMANCE SPECIFICATIONS**

Number of fibers	2
HOUSING MATERIAL	UL 94-V0
MATING DURABILITY	100
MECHANICAL PERFORMANCE: Pull Force (lbs)	150N
IP RATING	IP67
OPERATING TEMPERATURE: IEC 61300-2-22	-40°C / +85°C
Salt Mist: IEC 61300-2-26	Passed
Vibration: IEC 61300-2-1	Passed
Shock: IEC 61300-2-9	Passed



### **ODC® Style**

### **FEATURES**

- 2-4 Fiber plug and socket
- Multimode and Singlemode
- Waterproof, dustproof, and corrosion resistant
- One hand threaded mating
- 1.25mm ceramic ferrule
- Waterproof dust caps available

#### PERFORMANCE SPECIFICATIONS

Number of fibers	2-4 Fibers	
HOUSING MATERIAL	Nickel plated brass	
MATING DURABILITY	500	
MECHANICAL PERFORMANCE: p	ull force (lbs)	
IP RATING	IP68	
OPERATING TEMPERATURE: IEC 61300-2-22 -40°C / +70°C		
Salt Mist: IEC 61300-2-26	passed	
Vibration: IEC 61300-2-1	passed	
Shock: IEC 61300-2-9	passed	





### **OptiTip® CORNING COMPATIBLE**

Cable assemblies available OptiTip® to OptiTip® and OptiTip® to LC/SC/ST and MTP®

### **FEATURES**

- Singlemode and Multimode
- Pined and non-pinned
- Sealed dust cap with integrated pulling eye
- Waterproof, dustproof, and corrosion resistant
- Available with Corning SST™ and Freedm® LSZH™ Indoor/Outdoor cable

#### PERFORMANCE SPECIFICATIONS

Number of fibers	12 Fiber	
HOUSING MATERIAL		
MATING DURABILITY	200 rematin	gs <.3dB change
MECHANICAL PERFORMAN	CE: pull force (lbs)	100
Tensile Strength	300lb 1350N	
OPERATING TEMPERATURE	:: IEC 61300-2-22	-40°C / +70°C
Qualifications		EIA/TIA568-B, GR315
	2	



### **OptiTap® CORNING COMPATIBLE**

#### **FEATURES**

- 1 fiber SC
- Singlemode APC/UPC polish
- Proven reliability (deployed for over 20 years)
- Water proof, dust proof, and corrosion resistant
- Available on Corning SST™ Drop Dielectric and Toneable

### PERFORMANCE SPECIFICATIONS

Number of fibers	1 Fiber	
HOUSING MATERIAL		
MATING DURABILITY		
MECHANICAL PERFORMANCE: pul	force (lbs)	100
IP RATING	GR-3120	
OPERATING TEMPERATURE: IEC 61300-2-22 -40°C / +70°C		
Designed and Tested to Telcordia GR-3120		



# CUSTOM PRE-TERMINATED MULTI FIBER ASSEMBLIES

NetSource preterminated assemblies allow for quick and easy deployment. They are suitable for a wide variety of installations. All assemblies are made to customer specific requirements and can be used in both temporary and permanent installs. Factory termination in a controlled environment helps insure reliable and consistent performance.

### **PRODUCT TYPES**

- 2-144 Fibers
- Singlemode and Multimode

### **BREAKOUTS**

- Custom lengths
- Weather resistant
- Variety of colors and sizes

#### FIBER INTERFACE

 LC, SC, ST, MTP®, FullAXS®, ODC®, OptiTip®, OptiTap® IP RATED CONNECTORS

#### CABLE CONSTRUCTION

- Riser / plenum / PU / PE jackets
- Armored: Interlocking / TINI® / Metal Sheath
- Indoor / Outdoor: Sunlight resistant cable jackets



### **DAS Cable Assemblies**

NetSource distributed antenna system cables are manufactured to your specific requirements. These cable assemblies are the perfect solution for both in-building and outdoor wireless coverage.

### **PRODUCT TYPES**

- 1-24 Fibers
- Singlemode and Mulitmode
- 12/14/16/18/20AWG THHN / THWN-2

### **BREAKOUTS**

- Manufactured to specific lengths
- Weather resistant
- Variety of colors and sizes

### FIBER INTERFACE

• LC, SC, ST, MTP®

### **CABLE CONSTRUCTION**

- Riser / Plenum / PU jackets : Sunlight resistant cable
- Armored: Interlocking / TINI® / Metal Sheath

