



OSP MicroCore® LM-Series

AFL OSP MicroCore® cable series is designed for outside plant installation in microduct conduit systems. The unique, high-fiber density geometry yields a cable construction that can safely accommodate 12 up to 432 fibers and can be blown into microducts ranging in inside diameters from 10 mm to 16 mm.

For example, with a 7-way 12.7 mm x 10 mm (conduit with seven microducts) in place, the system designer has the flexibility to install from 12 to 144 fibers per microduct. With this approach, only the number of fibers required for initial networking requirements need to be installed. Then as future network upgrades and expansions are required, the spare microducts can be jetted with addition OSP MicroCore cables without having to add additional pathway space.

Applications

- Designed for long-haul, middle-mile and metro-loop
- Campus inter-building backbone distribution
- Low-cost fiber upgrade migration strategies

Features

- GR-20 compliant water-blocked cable core and buffer tubes
- Colored binder threads for easily identifiable optical fiber bundles
- High installation tensile load rating
- OD compatible with 10 mm to 16 mm inside diameter microducts
- 12 up to 432 fibers
- Tenable option includes a low-resistance copper wire that allows cable/pathway to be located using standard electromagnetic detector devices

Fiber Specifications

| FIBER TYPE | MAXIMUM ATTENUATION (DB/KM) | | | | OVERFILL LAUNCH MIN. BANDWIDTH (MHZ•KM) | | GIGABIT ETHERNET MIN. LINK DISTANCE (METERS) | |
|-----------------------------|-----------------------------|---------|---------|---------|---|---------|--|---------|
| | 850 NM | 1300 NM | 1310 NM | 1550 NM | 850 NM | 1300 NM | 850 NM | 1300 NM |
| (6) 62.5/125 GIGA-Link™ 300 | 3.5 | 1.2 | N/A | N/A | 200 | 600 | 300 | 550 |
| (5) 50/125 GIGA-Link™ 600 | 2.9 | 0.9 | N/A | N/A | 500 | 500 | 600 | 600 |
| (L) 50/125 Laser-Link™ 300 | 2.9 | 0.9 | N/A | N/A | 1500 | 500 | 900 | 550 |
| (9) Single-mode | N/A | N/A | 0.35 | 0.25 | N/A | N/A | N/A | 5000 |

Gigabit Ethernet Minimum Link Distances are based on "bandwidth"/modal dispersion constraints. Actual link distances may be constrained by attenuation, depending on specific loss budget.

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Mechanical Data

| LM-SERIES AFL NO. * | FIBER COUNT | FIBERS/ TUBE | NOMINAL DIAMETER | | MIN. DUCT I.D. | | NOMINAL WEIGHT | | MAXIMUM TENSILE LOAD LBS (KG) | | MINIMUM BEND RADIUS INCHES (CM) | |
|------------------------|----------------|--------------------|---------------------|------|-------------------|----|----------------|-------|----------------------------------|-----------|------------------------------------|-----------|
| | | | IN. | MM | IN. | MM | LBS/1,000 FT | KG/KM | INSTALLATION | OPERATION | INSTALLATION | OPERATION |
| LM012★C6101#S | 12 | 12/1 (5 fillers) | 0.299 | 7.6 | 0.394 | 10 | 31 | 46 | 300 (136) | 90 (41) | 5 (13) | 4 (10) |
| LM024★C6101#S | 24 | 12/2 (4 fillers) | 0.299 | 7.6 | 0.394 | 10 | 31 | 46 | 300 (136) | 90 (41) | 5 (13) | 4 (10) |
| LM048★C6101#S | 48 | 12/4 (2 fillers) | 0.299 | 7.6 | 0.394 | 10 | 31 | 47 | 300 (136) | 90 (41) | 5 (13) | 4 (10) |
| LM072★C6101#S | 72 | 12/6 (no fillers) | 0.299 | 7.6 | 0.394 | 10 | 34 | 51 | 300 (136) | 90 (41) | 5 (13) | 4 (10) |
| LM096★O6101#S | 96 | 24/4 (2 fillers) | 0.311 | 7.9 | 0.394 | 10 | 34 | 51 | 300 (136) | 90 (41) | 7 (16) | 5 (13) |
| LM144★O6101#S | 144 | 24/6 (no fillers) | 0.311 | 7.9 | 0.394 | 10 | 36 | 53 | 300 (136) | 90 (41) | 7 (16) | 5 (13) |
| LM288★R6101#S | 288 | 48/6 (no fillers) | 0.409 | 10.4 | 0.512 | 13 | 63 | 93 | 350 (150) | 100 (45) | 9 (21) | 7 (17) |
| LM432★O1301#S | 432 | 24/18 (no fillers) | 0.496 | 12.6 | 0.630 | 16 | 87 | 130 | 300 (136) | 90 (41) | 10 (26) | 8 (21) |

* Replace "★" in AFL number with number in the Fiber Specifications table on previous page.
 Replace # with "N" for all-dielectric cable or "T" for tonable option.

Temperature Specifications

| TEMPERATURE RANGE | |
|-------------------|----------------|
| INSTALLATION | -10°C to +40°C |
| OPERATING | -30°C to +70°C |
| STORAGE | -30°C to +75°C |

Standard P-U

| | |
|-----------|---------------------|
| Length | 6,000 m (20,000 ft) |
| Reel Type | Wood |
| Reel Size | 58 x 32 x 28 in. |