

LMHD-Series OSP Heavy Duty MicroCore® Cable

The Heavy Duty OSP MicroCore® (LMHD-Series) is small-diameter loose tube fiber optic cable with a 600lb load-rating. The design consists of SZ-stranded gel-filled buffer tubes, aramid and fiberglass strength elements, and a thick-walled, UV-resistant outer jacket. These cables can be jetted or pulled into standard HDPE ducts and, because of their small diameters, can be jetted into bundled microduct pathways. Minimum pathway inside diameters range from 13 mm to 20 mm, varied by the cable fiber count. When the application requires a transition from underground to aerial, the LMHD-Series cables can be lashed to aerial messenger wires using standard OSP cable lashing equipment and techniques.

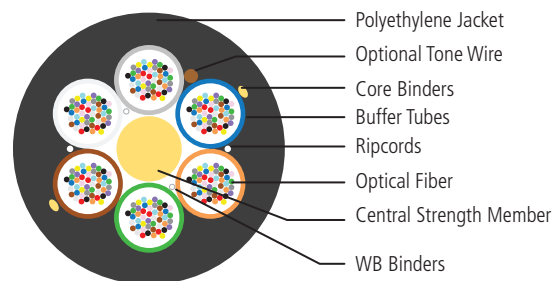
Features

- 12 up to 432 250 μm fibers
- 600 lb tensile load rating for pulling applications to be comparable to traditional underground loose tube fiber optic cables but at a smaller size
- Small-diameter construction offers improved air-jetting when compared to conventional loose tube cables
- Thick-walled outer jacket capable of direct lashing to aerial messenger wires
- Toneable option includes a low-resistance copper wire that allows cable/pathway to be located using standard electromagnetic detector devices

Applications

- Long-haul, local loop FTTx, campus backbone connections for 10G, 40G and 100G network transmission speeds
- Air-jetted into bundled micro-ducts
- Congested pathway over-ride installations

Cable Components



continued
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Physical and Mechanical Data

LMHD-SERIES AFL NO.*	FIBER COUNT	FIBERS/ NUMBER OF TUBES**	DIAMETER		MIN. MICRODUCT INNER DIAMETER	WEIGHT*** LBS/1000FT (KG/KM)	MAXIMUM TENSILE LOAD		MINIMUM BEND RADIUS	
			INCHES (MM)	INCHES (MM)			LBS (N)		INCHES (CM)	
							INSTALLATION	OPERATION	INSTALLATION	OPERATION
LM012xC6201#1	12	12/1 (5 fillers)	0.40 (10.1)	0.512 (13)	0.512 (13)	53 (78)	600 (2670)	180 (801)	8 (20)	6 (15)
LM024xC6201#1	24	12/2 (4 fillers)	0.40 (10.1)	0.512 (13)	0.512 (13)	53 (79)	600 (2670)	180 (801)	8 (20)	6 (15)
LM048xC6201#1	48	12/4 (2 fillers)	0.40 (10.1)	0.512 (13)	0.512 (13)	54 (81)	600 (2670)	180 (801)	8 (20)	6 (15)
LM072xC6201#1	72	12/6	0.40 (10.1)	0.512 (13)	0.512 (13)	56 (83)	600 (2670)	180 (801)	8 (20)	6 (15)
LM096xO6201#1	96	24/4 (2 fillers)	0.40 (10.1)	0.512 (13)	0.512 (13)	56 (83)	600 (2670)	180 (801)	8 (20)	6 (15)
LM144xO6201#1	144	24/6	0.40 (10.1)	0.512 (13)	0.512 (13)	57 (85)	600 (2670)	180 (801)	8 (20)	6 (15)
LM288xR6201#1	288	48/6	0.49 (12.4)	0.630 (16)	0.630 (16)	86 (129)	600 (2670)	180 (801)	10 (25)	7.5 (19)
LM432xOI201#1	432	24/18	0.58 (14.6)	0.787 (20)	0.787 (20)	117 (174)	600 (2670)	180 (801)	12 (30)	9 (22)

- * Replace # with "N" for all-dielectric cable or "T" for toneable option. "x" denotes fiber type. See Optical Fibers Options table below.
- ** Fibers are arranged in 12-fiber sets identified by colored binder threads. For fiber identification details [click here](#).
- *** Weights provided for all-dielectric designs, toneable cables will have a slightly increased weight. Contact AFL for details.

Optical Fiber Options

FIBER TYPE	"X"	STANDARD	MODE FIELD DIAMETER	ATTENUATION	
				1300 nm	1550 nm
250 µm Single-mode	9	ITU-T G.652D / 657.A1	9.2 µm nominal	0.35	0.25
Corning 250 µm Single-mode	AZ	ITU-T G.652D / 657.A1	9.2 µm nominal	0.35	0.25

Standard Packaging Details

Typical cut lengths are 20,000ft or 30,000ft. Contact AFL for longer or other preferred cut lengths.

FIBER COUNT	REEL DIMENSIONS (Flange x Width)	STANDARD REEL LENGTH	TYPICAL TOTAL WEIGHT
12-72	58 x 38 in.	20,000 ft (6,096 m)	1,450 lbs (658 kg)
96-144	58 x 38 in.	20,000 ft (6,096 m)	1,750 lbs (794 kg)
288	66 x 42 in.	20,000 ft (6,096 m)	2,400 lbs (1,089 kg)
432	72 x 42 in.	20,000 ft (6,096 m)	3,150 lbs (1,429 kg)

FIBER COUNT	REEL DIMENSIONS (Flange x Width)	STANDARD REEL LENGTH	TYPICAL TOTAL WEIGHT
12-72	66 x 42 in.	30,000 ft (9,144 m)	2,100 lbs (953 kg)
96-144	66 x 42 in.	30,000 ft (9,144 m)	2,500 lbs (1,134 kg)
288	72 x 42 in.	30,000 ft (9,144 m)	3,500 lbs (1,588 kg)

Recommended Products

DESCRIPTION	AFL NO.
Apex® X-2 Sealed Fiber Optic Splice Closure	Refer to spec sheet for AFL No.
Apex® X-2S Sealed Fiber Optic Splice Closure	Refer to spec sheet for AFL No.
Poli-MOD® Patch and Splice Module	Refer to spec sheet for AFL No.
FUSEConnect® Field-installable Splice-on Connectors	Refer to spec sheet for AFL No.
FUSEConnect® MPO Splice-on Connectors	Refer to spec sheet for AFL No.
LM-Series OSP MicroCore® Cable	Refer to spec sheet for AFL No.

Qualifications

GOVERNING BODY	STANDARD CODE	COMPONENT
Telcordia	GR-20-CORE	Cable*
ICEA	640	Cable
TIA	598-D	Fiber

* Tested to the operating temperature range as specified

Temperature Specifications

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

Contact AFL for further details.

Premise Cable