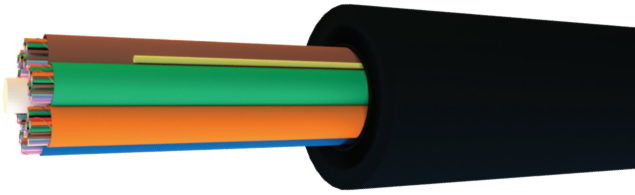
LMHD-Series OSP Heavy Duty MicroCore® Cable

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. The LMHD-Series is available in standard configurations, as well as versions with an integrated toneable low-resistance copper wire, a rodent-deterrent jacket, or a combination of both toneable and rodent-deterrent protection.



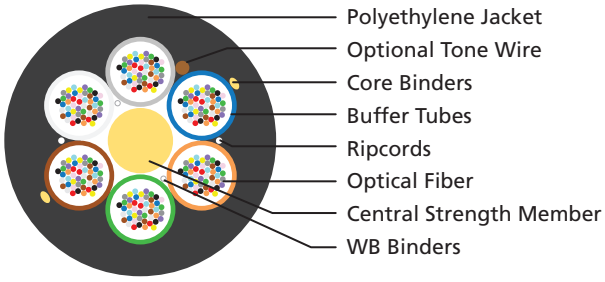
Features

- Build America/Buy America options available
- 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
- Rodent-deterrent jacket option includes a non-toxic bitterant agent designed to help reduce the risk of cable damage from rodent chewing with no impact to cable outside diameter

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



AFL CERTIFIED BEAD COMPLIANT

AFL CERTIFIED BABA COMPLIANT

continued

AFLglobal.com
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Mechanical Data

AFL No.*	Fiber Count	No. of Tubes	Nominal Diameter	Min. Microduct Inner Diameter	Weight***	Maximum Tensile Load lbs (N)		Minimum Bend Radius Inches (cm)	
		Fibers/ Tube***	Inches (mm)	Inches (mm)	Lbs/1000ft (kg/km)	Short Term	Long Term	Short Term	Long Term
LM012xC6201#1**	12	1-12 (5 fillers)	0.40 (10.1)	0.512 (13)	53 (78)	600 (2670)	180 (800)	8 (20)	6 (15)
LM024xC6201#1**	24	2-12 (4 fillers)	0.40 (10.1)	0.512 (13)	53 (79)	600 (2670)	180 (800)	8 (20)	6 (15)
LM048xC6201#1**	48	4-12 (2 fillers)	0.40 (10.1)	0.512 (13)	54 (81)	600 (2670)	180 (800)	8 (20)	6 (15)
LM072xC6201#1**	72	6-12	0.40 (10.1)	0.512 (13)	56 (83)	600 (2670)	180 (800)	8 (20)	6 (15)
LM096xO6201#1**	96	4-24 (2 fillers)	0.40 (10.1)	0.512 (13)	56 (83)	600 (2670)	180 (800)	8 (20)	6 (15)
LM144xO6201#1**	144	6-24	0.40 (10.1)	0.512 (13)	57 (85)	600 (2670)	180 (800)	8 (20)	6 (15)
LM288xR6201#1**	288	6-48	0.49 (12.4)	0.630 (16)	86 (129)	600 (2670)	180 (800)	10 (25)	7.5 (19)
LM432xOI201#1**	432	18-24	0.58 (14.6)	0.787 (20)	117 (174)	600 (2670)	180 (800)	12 (30)	9 (22)

Note: Diameter and weight subject to change without notice

* Replace # with "N" for all-dielectric cable or "T" for toneable option. Add "B" to the end of the part number to specify the rodent-deterrent jacket option. Fiber Types - Replace "x" in AFL number with number in the Fiber Specifications table below.

** For BABA-Compliant Part Number, add "-B" to end of part number.

*** 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.

Fiber Specifications

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 um nominal	0.35	0.25
Corning 250 µm Single-mode	AZ	ITU-T G.652D/657.A1	9.2 um nominal	0.35	0.25
BABA-Compliant 250 µm Single-mode	BK	ITU-T G.652D/657.A1	9.2 um nominal	0.35	0.25
BABA-Compliant Corning 250 µm Single-mode	BL	ITU-T G.652D/657.A1	9.2 um nominal	0.35	0.25

Standard Packaging Details

Typical cut lengths are 20,000 ft. 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)

Easy Access

Compatible with Jonard Tools Mid Span Slit and Ring Tool.

LMHD Fiber Count	LMHD Nominal Diameter	Jonard Tool Range
12-144	10.1 mm	9.5-9.9
288	12.4 mm	11.8-12.2
432	14.6 mm	14.2-14.6

Temperature Specifications

Temperature Range	
Storage	-30°C to +75°C
Installation	-10°C to +40°C
Operation	-30°C to +70°C

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

Contact AFL for further details.