



**Product:** [FMLU54HA048BKAA-C](#)

Universal OFC MLT: Dry Tubes (12F/T), Dry Core, Glass Yarn + CST + LSZH Outer Jacket (black) 48f MM OM4 IEC 60332-3-24 rated.

### Product Description

Universal (Indoor/Outdoor) Dry tubes (12F/T), Dry core, optical fiber Multi Loose Tube cable with Glass Yarn strength member, Corrugated Steel Tape armor and Low Smoke Zero Halogen outer jacket (black), 48 fibers MM OM4 IEC 60332-3-24 rated.

### Technical Specifications

#### Product Overview

Product Category:	Fiber Multi-Loose Tube Cable
Suitable Applications:	For outdoor/indoor use in structured (data) wiring systems such as industrial backbone, campus backbone, building backbone cabling. For outdoor/indoor use in networks for industrial, telecom, cable TV and/or broadcast. Easy to install in ducts, tunnels and trenches and/or tubes. Suitable for Direct Burial.

#### Fiber Specifications

Fiber Type:	OM4
Fiber Core Diameter:	50 µm
Fiber Diameter:	125 µm
Buffer Material:	PBT – Polybutylene Terephthalate
Fiber Count:	48
Fiber Color Coding:	TIA-598-D

#### Cable Construction

Number of Active Subunits:	4
Number of Fillers:	2
Fibers Per Subunit:	12
Subunit Waterblocking:	Gel Free
Subunit Color:	TIA-598-D
Central Strength Member:	GRP
Cable Core Waterblocking:	Waterblocking Yarns + Tape

#### Armor Specifications

Armor Type and Material:	CST - Corrugated Steel Tape
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#### Outer Jacket Specifications

Jacket Material:	LSZH - Low Smoke Zero Halogen (Flame Retardant)
Nom. Diameter:	12.2 mm (0.480 in)
Color:	Black

#### Optical Characteristics

Wavelength	850 nm	1300 nm
Max. Attenuation	3.0 dB/km	1.0 dB/km

#### Mechanical Characteristics

Min. Bend Radius During Installation:	20 x Cable OD
Min. Bend Radius During Operation:	10 x Cable OD

Max. Tensile Strength During Installation:	2700 N (610 lbf)
Max. Tensile Strength During Operation:	900 N (200 lbf)
Crush Resistance:	2200N/100mm for Short Term & 1100N/100mm for Long Term

#### Mechanical Tests

Description	Tested Standard
Cable Min. Bend Radius Installation (Short Term)	IEC 60794-1-21-E11
Cable Min. Bend Radius Operation (Long Term)	IEC 60794-1-21-E11
Cable Max. Tensile Strength Installation (Short Term)	IEC 60794-1-21-E1
Cable Max. Tensile Strength Operation (Long Term)	IEC 60794-1-21-E1
Cable Max. Crush Resistance Installation (Short Term)	IEC 60794-1-21-E3
Cable Max. Crush Resistance Operation (Long Term)	IEC 60794-1-21-E3
Cable Impact Resistance	IEC 60794-1-21-E4
Waterblocking	IEC 60794-F5

Bulk Cable Weight:	148 kg/km (99.5 lbs/1000ft)
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#### Temperature Range

Operating Temperature Range:	-40 °C to +70 °C
Storage Temperature Range:	-40 °C to +70 °C

#### Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Non-Halogenated, Burial
Flammability / Reaction to Fire:	IEC 60332-3-24
ISO/IEC Compliance:	IEC 60793-1-1IEC 60794-1-1, IEC 61034-2 - Smoke Density Min Transmittance = 60%
European Halogen Free Standards:	IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 10 , IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3
European Directive Compliance:	EU Directive 2011/65/EU (RoHS 2)

#### History

Update and Revision:	Revision Number: 0.6 Revision Date: 07-18-2024
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