### MHD-MFDH



# Hardened Multifiber Optical Connector (HMFOC) cable assembly, HMFOC jack to HMFOC plug, 12-fiber

- Hardened connectors are factory-terminated and environmentally sealed for use in optical drop cable deployments
- Hardened drop cables incorporate hardened connector technology that is designed to withstand the rugged outside plant environment
- Hardened drop cables simplify installation and maintenance by reducing splicing requirements in the distribution portion of the network

#### Product Classification

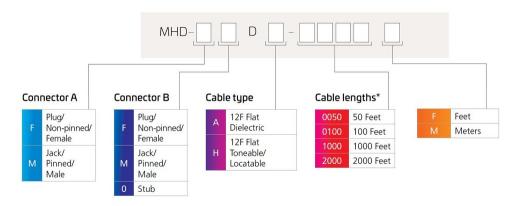
Regional Availability	Asia   Latin America   North America
Product Type	Fiber drop cable assembly
Product Series	MHD
General Specifications	
Cable Type	Toneable - Flat
Connector A, quantity	1
Color, boot A	Black
Color, connector A	Black
Connector B, quantity	1
Color, boot B	Black
Color, connector B	Black
Interface, Connector A	Hardened multi-fiber (HMFOC) jack
Interface Feature, connector A	Male   Pinned
Interface, Connector B	Hardened multi-fiber (HMFOC) plug
Interface Feature, connector B	Female   Unpinned
Jacket Color	Black
Total Fibers, quantity	12
Dimensions	
Cable Assembly Length Range (m)	8 – 915
Cable Assembly Length Range (ft)	25 – 3000
Cable Outer Diameter	4.3 x 9.9 mm (0.17 x 0.39 in)

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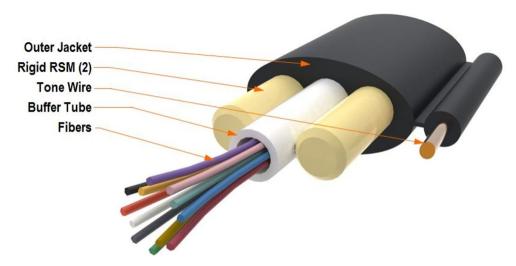
### MHD-MFDH

### Ordering Tree



\* Cable Length shown as an example, additional cable lengths available upon request up to 2,000 ft. (600 m).

### Representative Image



#### Mechanical Specifications

Minimum Bend Radius, loaded	86 mm   3.386 in
Minimum Bend Radius, unloaded	81 mm   3.189 in
Tensile Load, long term, maximum	400 N   89.924 lbf
Tensile Load, short term, maximum	1334 N   299.895 lbf

#### **Optical Specifications**

Fiber Mode

Singlemode

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## MHD-MFDH

Fiber Type	G.657.A2, TeraSPEED®
Insertion Loss, maximum, connector A	0.45 dB
Insertion Loss, maximum, connector B	0.45 dB
Return Loss, minimum, connector A	65 dB
Return Loss, minimum, connector B	65 dB

### **Environmental Specifications**

Installation temperature	-30 °C to +70 °C (-22 °F to +158 °F)
Operating Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Storage Temperature	-40 °C to +75 °C (-40 °F to +167 °F)
Environmental Space	Outdoor, buried
Jacket UV Resistance	UV stabilized

### Packaging and Weights

Packaging quantity

1

#### Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant



#### Included Products

810009374/DB 0-012-DF-HY-F12NS/30T /8G1012/1X24AWG Tone Wire Outdoor Drop Cable, 12 fiber Arid Core construction, central loose tube

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Tone Wire Outdoor Drop Cable, 12 fiber Arid Core construction, central loose tube

### Product Classification

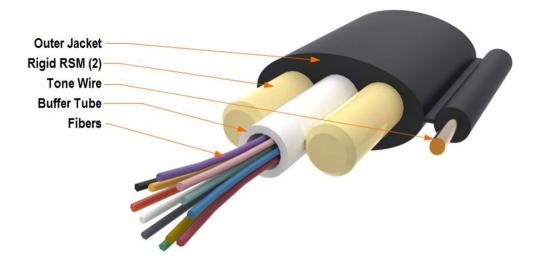
Regional Availability Portfolio	Asia   Australia/New Zealand   EMEA   Latin America   North America CommScope®
Product Type	Hybrid cable, fiber and tone-wire
General Specifications	
Cable Type	Central loose tube
Construction Type	Non-armored
Fiber Short Description	0-012-DF-HY-F12NS/20G/1X24AWG
Subunit Type	Gel-filled
Jacket Color	Black
Subunit, quantity	1
Fibers per Subunit, quantity	12
Tone Wire, quantity	1
Total Fiber Count	12
Dimensions	
Height Over Jacket	4.572 mm   0.18 in

5	•
Buffer Tube/Subunit Diameter	3.048 mm   0.12 in
Diameter Over Jacket	9.906 mm   0.39 in
Diameter Over Messenger Jacket	2.032 mm   0.08 in
Tone Wire Gauge	24 AWG

### Representative Image

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#### Mechanical Specifications

Minimum Bend Radius, loaded	86.36 mm   3.4 in
Minimum Bend Radius, unloaded	63.5 mm   2.5 in
Tensile Load, long term, maximum	400.34 N   90 lbf
Tensile Load, short term, maximum	1,334.466 N   300 lbf
Compression	1.018 kg/mm   57 lb/in
Compression Test Method	FOTP-41   IEC 60794-1 E3
Flex	35 cycles
Flex Test Method	FOTP-104   IEC 60794-1 E6
Impact	2.17 ft lb   2.942 N-m
Impact Test Method	FOTP-25   IEC 60794-1 E4
Strain	See long and short term tensile loads
Strain Test Method	FOTP-33   IEC 60794-1 E1
Twist	10 cycles
Twist Test Method	FOTP-85   IEC 60794-1 E7
Vertical Rise, maximum	889.102 m   2917 ft
Optical Specifications	

Fiber Type

G.657.A2 | G.657.A2, TeraSPEED®

### **Environmental Specifications**

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Installation temperature	-30 °C to +70 °C (-22 °F to +158 °F)
Operating Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Storage Temperature	-40 °C to +75 °C (-40 °F to +167 °F)
Cable Qualification Standards	ANSI/ICEA S-110-717
Environmental Space	Aerial, lashed   Buried
Jacket UV Resistance	UV stabilized
Water Penentration	24 h
Water Penentration Test Method	FOTP-82   IEC 60794-1 F5

#### Environmental Test Specifications

Cable Freeze	-2 °C   28.4 °F
Cable Freeze Test Method	FOTP-98   IEC 60794-1 F15
Drip	70 °C   158 °F
Drip Test Method	FOTP-81   IEC 60794-1 E14
Heat Age	-40 °C to +85 °C (-40 °F to +185 °F)
Heat Age Test Method	IEC 60794-1 F9
Low High Bend	-30 °C to +60 °C (-22 °F to +140 °F)
Low High Bend Test Method	FOTP-37   IEC 60794-1 E11
Temperature Cycle	-40 °C to +70 °C (-40 °F to +158 °F)
Temperature Cycle Test Method	FOTP-3   IEC 60794-1 F1

### Packaging and Weights

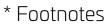
Cable weight

36.906 kg/km | 24.8 lb/kft

### Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant





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**Operating Temperature** Specification applicable to non-terminated bulk fiber cable

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