# P-144-DZ-6F-FMU



Fiber indoor cable, OptiSPEED® Plenum Distribution, interlocking aluminum armored with plenum jacket, 144 fiber multi-unit with 12 fiber subunits, Multimode OM1, Feet jacket marking

#### **Product Classification**

Regional Availability

Asia | Australia/New Zealand | Latin America | Middle East

/Africa | North America

Portfolio CommScope®

Product Type Fiber indoor cable

**Product Series** P-DZ

General Specifications

Armor Type Interlocking aluminum

 Cable Type
 Distribution

Construction Type Armored

Fiber Type, quantity 144

Fibers per Subunit, quantity 12

Jacket Marking Feet

Subunit Type Gel-free

Subunit, quantity 12

Total Fiber Count 144

Dimensions

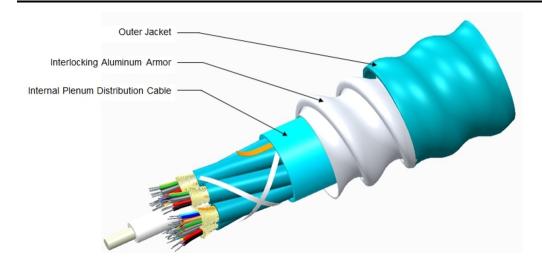
Buffer Tube/Subunit Diameter5.77 mm | 0.227 inDiameter Over Armor31.12 mm | 1.225 in

**Diameter Over Jacket** 33.1 mm | 1.303 in

Representative Image



# P-144-DZ-6F-FMU



# Mechanical Specifications

Minimum Bend Radius, loaded 663 mm | 26.102 in

Minimum Bend Radius, unloaded 464 mm | 18.268 in

**Tensile Load, long term, maximum** 400 N | 89.924 lbf

**Tensile Load, short term, maximum** 1335 N | 300.12 lbf

**Compression** 85 N/mm | 485.363 lb/in

**Compression Test Method** FOTP-41 | IEC 60794-1 E3

Flex 25 cycles

Flex Test Method FOTP-104 | IEC 60794-1 E6

**Impact** 35 N-m | 309.776 in lb

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** 48 m | 157.48 ft

Optical Specifications

Fiber Type OM1, OptiSPEED® | OM1, OptiSPEED®

**Environmental Specifications** 

**Installation temperature** 0 °C to +70 °C (+32 °F to +158 °F)

Page 2 of 5



# P-144-DZ-6F-FMU

**Operating Temperature**  $-20 \, ^{\circ}\text{C} \text{ to } +70 \, ^{\circ}\text{C} \, (-4 \, ^{\circ}\text{F to } +158 \, ^{\circ}\text{F})$ 

**Storage Temperature**  $-40 \,^{\circ}\text{C} \text{ to } +70 \,^{\circ}\text{C} \, (-40 \,^{\circ}\text{F to } +158 \,^{\circ}\text{F})$ 

Cable Qualification Standards ANSI/ICEA S-83-596 | Telcordia GR-409

Environmental Space Plenum

Flame Test Listing NEC OFCP (ETL) and c(ETL)

Flame Test Method NFPA 262

**Environmental Test Specifications** 

**Heat Age** -20 °C to +85 °C (-4 °F to +185 °F)

**Heat Age Test Method** IEC 60794-1 F9

**Low High Bend**  $-20 \,^{\circ}\text{C} \text{ to } +70 \,^{\circ}\text{C} \left(-4 \,^{\circ}\text{F to } +158 \,^{\circ}\text{F}\right)$ 

**Low High Bend Test Method** FOTP-37 | IEC 60794-1 E11

Temperature Cycle -20 °C to +70 °C (-4 °F to +158 °F)

**Temperature Cycle Test Method** FOTP-3 | IEC 60794-1 F1

Packaging and Weights

**Cable weight** 854 kg/km | 573.862 lb/kft

Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system



#### Included Products

CS-6F-TB - OptiSPEED® OM1 Multimode Fiber

#### \* Footnotes

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



## OptiSPEED® OM1 Multimode Fiber

# OptiSPEED®

#### **Product Classification**

Portfolio CommScope®
Product Type Optical fiber

General Specifications

**Cladding Diameter** 125 μm

Cladding Non-Circularity, maximum 1 %

Coating Diameter (Colored) 254 µm

Coating Diameter (Uncolored) 245 µm

**Coating Diameter Tolerance (Colored)** ±7 μm

Coating Diameter Tolerance (Uncolored) ±10 µm

Coating/Cladding Concentricity Error, maximum 12 µm

Core Diameter 62.5 µm

**Core Diameter Tolerance** ±2.5 µm

Core/Clad Offset, maximum 1 µm

**Proof Test** 689.476 N/mm² | 100000 psi

Tight Buffer Diameter $900 \ \mu m$ Tight Buffer Diameter Tolerance $\pm 40 \ \mu m$ 

Mechanical Specifications

**Macrobending, 75 mm Ø mandrel, 100 turns** 0.50 dB @ 1,300 nm | 0.50 dB @ 850 nm

Coating Strip Force, maximum $8.9 \,\mathrm{N}$  |  $2.001 \,\mathrm{lbf}$ Coating Strip Force, minimum $1.3 \,\mathrm{N}$  |  $0.292 \,\mathrm{lbf}$ 

**Dynamic Fatigue Parameter, minimum** 18

**COMMSCOPE®** 

# CS-6F-TB

## Optical Specifications

Numerical Aperture0.275Numerical Aperture Tolerance±0.015Point Defects, maximum0.15 dB

**Zero Dispersion Slope, maximum** 0.097 ps/[km-nm-nm]

Zero Dispersion Wavelength, maximum1365 nmZero Dispersion Wavelength, minimum1320 nm

### Optical Specifications, Wavelength Specific

**1 Gbps Ethernet Distance** 300 m @ 850 nm | 550 m @ 1,300 nm

**Attenuation, maximum** 1.00 dB/km @ 1,300 nm | 3.00 dB/km @ 850 nm

**Backscatter Coefficient** -68.0 dB @ 850 nm | -75.7 dB @ 1,300 nm

**Bandwidth, OFL, minimum** 220 MHz-km @ 850 nm | 500 MHz-km @ 1,300 nm

**Index of Refraction** 1.491 @ 1,300 nm | 1.496 @ 850 nm

Standards Compliance TIA-492AAAA (OM1)

## **Environmental Specifications**

Heat Aging, maximum 0.20 dB/km @ 85 °C

Temperature Dependence, maximum0.1 dB/kmTemperature Humidity Cycling, maximum0.2 dB/km

**Water Immersion, maximum** 0.20 dB/km @ 23 °C

## Regulatory Compliance/Certifications

#### Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system



#### \* Footnotes

**Temperature Dependence, maximum** Temperature dependence is conducted at -60 °C to +85 °C (-76 °F to +185 °F)

**Temperature Humidity Cycling, maximum** Temperature humidity cycling is conducted at -10 °C to +85 °C (+14 °F to +185 °F)

up to 95% relative humidity

COMMSC PE°