



## Industrial Control Plastic Optical Fiber Cable

### Overview

Industrial Fiber Optics manufactures standard product lines of fiber optic patch cords with plastic optical fiber (POF) and Versatile Link (Versalink) terminations. These products provide ready-made solutions for quick installations in commercial or industrial networking/communications applications using Avago VersaLink fiber optic transmitters and receivers. Our premier quality patch cords are available in simplex and duplex cable with latching and non-latching connectors, heavy duty or UL-rated cable construction, and in many standard lengths.

This patch cord line utilizes high quality Eska Premier GHCP4001 fiber cable featuring a rugged polyethylene jacket. Patch cord terminations are authentic Avago Versalink connectors.

We offers a complete portfolio of fiber optic components for networking including: Ethernet, Fiber Channel, Infiniband, OBSAI/CPRI, Sonet/ATM, and proprietary communication links.

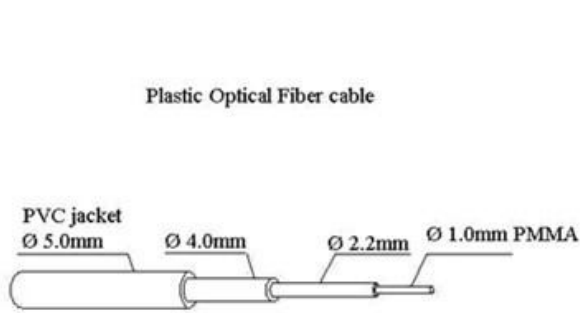
### Specification

1. Simplex, duplex, latching and non-latching connector options
2. UL-rated fiber cable and connections
3. Crimped and epoxied connector terminations for maximum retention strength.
4. 1  $\mu$  m polish terminations ensure high optical coupling efficiency
5. Assembly processes exceed Avago recommended procedures
6. Standard fiber lengths for low-cost manufacturing and quick delivery

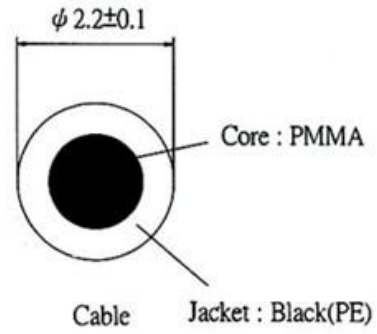
### Application

1. Motor controller triggering
2. Data communications and local area network
3. Automotive communications and control networks
4. Noise immune communication in audio/video equipment
5. Error free signalling for industrial and manufacturing equipment
6. Power system

## Core structure



Picture 1: Side view



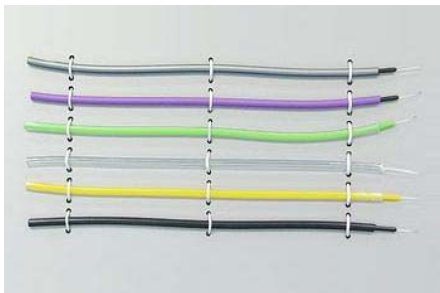
Picture 2: Front view



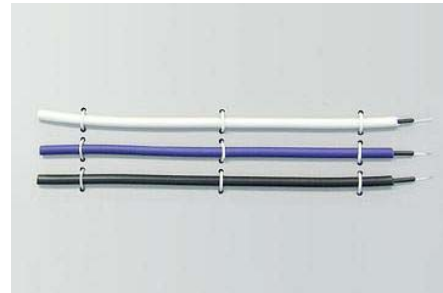
Picture 3: Optic fiber



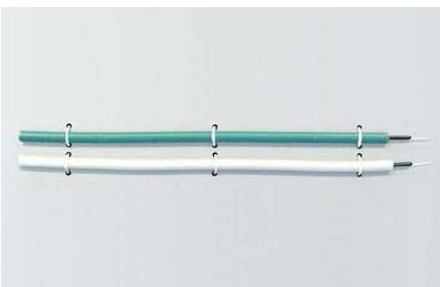
Picture 4: Optic fiber



Picture 5:  $\varnothing$ 2.2mm optic fiber cable



Picture 6:  $\varnothing$ 4.0mm optic fiber cable



Picture 7:  $\varnothing$ 5.0mm optic fiber cable



Picture 8:  $\varnothing$ 6.0mm optic fiber cable

**Material: PMMA**

| Item                | Unit  | Data                                       |
|---------------------|-------|--|
| Core Diameter       | mm    | Φ1.0mm, Φ0.5mm, Φ0.75mm                    |
| Outside Diameter    | mm    | Φ2.2~5.0mm±0.1mm                           |
| Fiber Material      | --    | PMMA                                       |
| Wavelength          | nm    | 650nm or 530nm                             |
| Typical Attenuation | dB/km | <190                                       |
| Refractive Index    | --    | Step Index                                 |
| Bend Radius         | --    | 5 x core Diameter                          |
| Numerical Aperture  | --    | 0.50                                       |
| Angle of incidence  | --    | 60°  |
| Interchangeability  | dB    | <0.5                                       |
| Tensile Strength    | N     | ≧ 1.0dB(0~80N)                             |
| Vibration           |       | ≧ 1.0dB(5~50Hz)                            |
| Working Temperature | °C    | -40°C- +70°C                               |
| Storage Temperature | °C    | -40°C- +70°C                               |
| Quality standard    | --    | SONET. OC-48m, G.653, YD/T 1447-2006, ROHS |

**Matching products**

| Item no.         | Connector 1 | Connector 2 | Core diameter | Core style | Cable color | Length  |
|------------------|-------------|-------------|---------------|------------|-------------|---------|
| HFBR 4501Z-4511Z | HFBR-4501Z  | HFBR-4511Z  | POF 980/1000  | simplex    | black       | 1000 mm |
| HFBR 4503Z-4513Z | HFBR-4503Z  | HFBR-4513Z  | POF 980/1000  | simplex    | black       | 1000 mm |
| HFBR 4506Z-4516Z | HFBR-4506Z  | HFBR-4516Z  | POF 980/1000  | duplex     | black       | 1000 mm |
| HFBR 4531Z-4533Z | HFBR-4531Z  | HFBR-4533Z  | POF 980/1000  | simplex    | black       | 1000 mm |
| HFBR 4532Z-4532Z | HFBR-4532Z  | HFBR-4531Z  | POF 980/1000  | simplex    | black       | 1000 mm |

**HFBR 4501Z-4511Z**



## Structure



## Overview

1. Original importer Avago connectors, more firm and integrated anti-drag
2. POF optic cable to guarantee high quality audio signal transmission
3. Fine polishing wearproof covers, PE&PVC sheath and colored cores
4. Immunity from electromagnetic interferences

## Specification

End style: HFBR 4501Z-4511Z

Core diameter:  $\Phi 1.0$ 、 $\Phi 0.50$ 、 $\Phi 0.75$

Core material: PMMA

Outside diameter:  $\Phi 2.2$ ;  $\Phi 2.2\text{mm}-10.0\text{mm}$

Cladding material: CPE、PE、PVC

Cladding color: Black or other color

Typical Attenuation:  $<190\text{dB/km}$

Working Temperature:  $-55^{\circ}\text{C}-+70^{\circ}\text{C}$

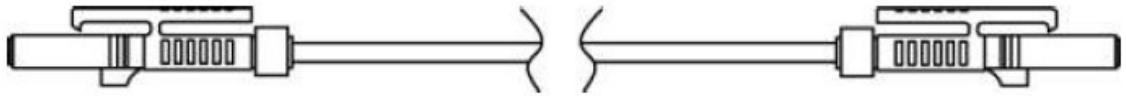
Length: 1000mm, (special length: 0-100m)

Quality Standard: ROHS、CE

## HFBR 4503Z-4513Z



## Structure



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Core diameter:  $\Phi 1.0$ 、 $\Phi 0.50$ 、 $\Phi 0.75$

Core material: PMMA

Outside diameter:  $\Phi 2.2$ ;  $\Phi 2.2\text{mm}-10.0\text{mm}$

Cladding material: CPE、PE、PVC

Cladding color: Black or other color

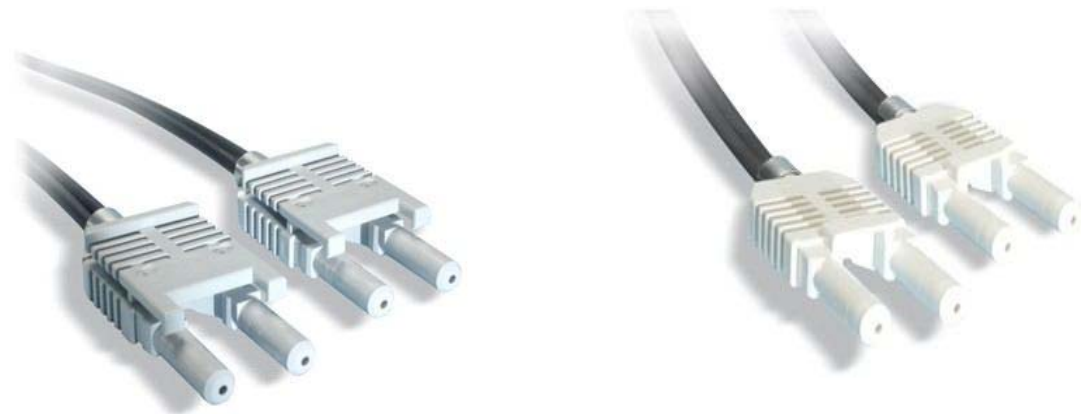
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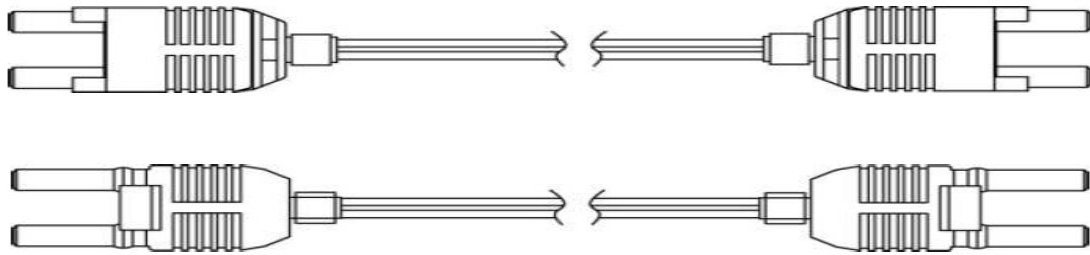
Length: 1000mm, (special length: 0-100m)

Quality Standard: ROHS、CE

## HFBR 4506Z-4516Z



## Structure



## Overview

1. Original importer Avago connectors, more firm and integrated anti-drag
2. POF optic cable to guarantee high quality audio signal transmission
3. Fine polishing wearproof covers, PE&PVC sheath and colored cores
4. Immunity from electromagnetic interferences

## Specification

End style: HFBR 4506Z-4516Z

Core diameter:  $\Phi 1.0$ 、 $\Phi 0.50$ 、 $\Phi 0.75$

Core material: PMMA

Outside diameter:  $\Phi 2.2$ ;  $\Phi 2.2\text{mm}-10.0\text{mm}$

Cladding material: CPE、PE、PVC

Cladding color: Black or other color

Typical Attenuation:  $<190\text{dB/km}$

Working Temperature:  $-55^{\circ}\text{C}-+70^{\circ}\text{C}$

Length: 1000mm, (special length: 0-100m)

Quality Standard: ROHS、CE