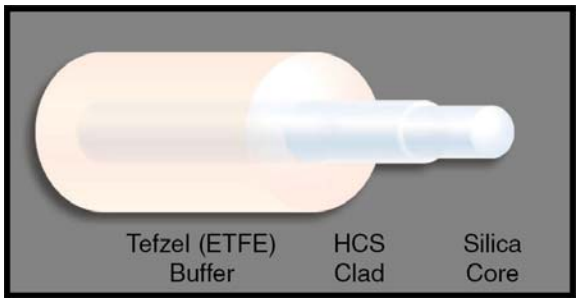
HCS optical fiber

Description:

Step-index silica fibers are the preferred choice for low cost, short distance datalinks. Their large core size permits the use of low cost transmitter/receiver technology. The fiber's high tensile strength allows easy field terminations. The most commonly used fiber is HCS (Hard Clad Silica) with a 200 µm or 400 µm core. A fiber specification accepted as an ANSI standard for FDDI. This fiber provides an excellent balance of performance characteristics and makes possible the use of low cost devices and connectors. Connector styles include ST, SMA, V-system (or "Versatile Link"), and F07 configurations.
HCS fiber can be incorporated in a variety of standard and custom cable designs. Many of these can meet such flammability and smoke ratings as Plenum, Riser, Low-Smoke Zero Halogen.
Hard Clad Silica coating permits performance over wide ranges of temperature and humidity with low attenuation. HCS coating also allows termination with crimp and cleave technology for most core sizes.

Characteristics :

- Tensile strength and fatigue resistance
- Ease of use and connectorization
- High data rate and bandwidth capacity
- Sterilizability and biocompatibility
- Wide termperature and humidity tolerance



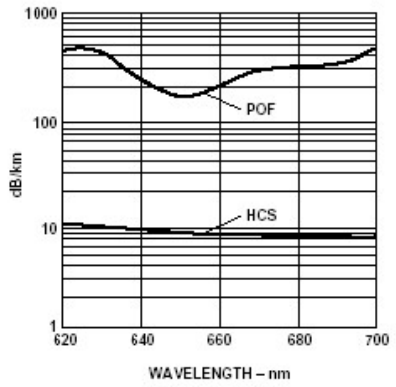
Fiber construction

Applications:

- Laser power delivery
- Sensors
- Medical communications
- Factory automation
- Short-to-medium distance communications

Sources:

- LEDs
- Gas laser
- UV lamp
- Visible lamps
- Laser diodes



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Technical specifications :

Fiber type	CF05578-01	CF05578-03
Core diameter	200 ± 4 µm	400 ± 8 µm
HCS cladding diameter	230 +0/-10 µm	430 +5/-10 µm
ETFE buffer diameter	500 ± 30 µm	573 ± 30 µm
Core/Clad offset	≤ 5 µm	≤ 8 µm
Numerical aperture	0.43	0.43
Attenuation @ 850 nm	≤ 6 dB/km	≤ 8 dB/km
Water content	Low OH	Low OH
Cladding material	HCS	HCS
Buffer material	ETFE	ETFE
Operating temperature	-65°C to +125°C	-65°C to + 125°C
Short-term radius	≥10 mm	29 mm
Long-trm radius	≥16 mm	47 mm
Prooftest level	≥150 kpsi	≥150 kpsi

Ordering code - patchcords :

AAA - XX XX - XXX

AAA
Connector
Type
ST
SMA
HFBR[1]
(V-pin)

XXX - length [m]

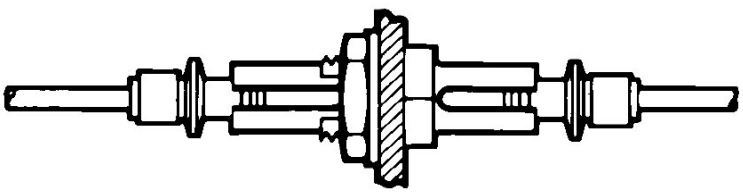
XX XX - Fibre type
HCS 01 CF05578-01 (core 200 µm)
HCS 03 CF05578-03 (core 400 µm)

1) HFBR-4521 Black Simplex Connector/Crimp Ring

SMA connector

ST connector

HFBR (V-pin connector)



HFBR adapter

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