

Bare fiber

Medical Laser delivery Systems for:

- **Argon Laser 488/413 nm**
- **Diode Laser 810 nm**
- **Diode Laser 980 nm**
- **Eximer Laser 308 nm**
- **KTP Laser 532 nm**
- **Nd :YAG Laser 1064 nm**
- **Nd :YAG Laser 1320 nm**
- **Ho :YAG Laser 2127 nm**

aft AS...UV- BARE FIBERS

FIBER DESIGN

- Fiber design: Pure fused silica core (high OH⁻)
Fluorine doped fused silica cladding
Acrylate coating (-40°C to 85°C)
Silicone resin coating (-40°C to 180°C)
Polyimide coating (-190°C to 385°C)
- Jacket: Nylon (-40°C to 100°C)
ETFE (-200°C to 150°C)
Acrylate (-40°C to 85°C)

FIBER PROPERTIES

- Core/clad ratio: 1.1
- Numerical aperture: 0.22 ± 0.02
- Operation wavelength range: 180 nm to 1100 nm
- Proof test level (bend method): 70 kpsi
- Bend radius: momentary 100 times the fiber radius
long term 600 times the fiber radius
- Laser damage threshold: $> 50 \text{ mJ/mm}^2$ (XeCl, 25 ns pulse at 248 nm)
 $> 150 \text{ mJ/mm}^2$ (XeCl, 30 ns pulse at 308 nm)
- Radiation induced attenuation: $< 10 \text{ dB/km}$ at dose values above 1 Mrad

OPTIONS

- Core/clad ratios 1.05, 1.07, 1.15, 1.20, 1.30, 1.40
- Numerical apertures 0.07 to 0.28
- Metal coating (-190°C to 750°C)
- Fiber bundles
- Tapered fibers
- Connectors (SMA, FC/PC, ST, DIN)
 - AS-Fiber cables

aft AS...UV-BARE FIBERS

CODE DESCRIPTION

UV

BARE FIBER WITH NYLON JACKETED

Order code	Core [μm] $\pm 2\%$	Length (meter) +0 /-0,2	Connector Fiber tip	Clad [μm] $\pm 2\%$	Wavelength Jacket Material	Numerical aperture NA
aft BF_100_3_SF_AS_110UV N_0,22	100	3	SMA Flat	110	UV Nylon	0,22
aft BF_200_3_SF_AS_220UV N_0,22	200	3	SMA Flat	220	UV Nylon	0,22
aft BF_300_3_SF_AS_330UV N_0,22	300	3	SMA Flat	330	UV Nylon	0,22
aft BF_400_3_SF_AS_440UV N_0,22	400	3	SMA Flat	440	UV Nylon	0,22
aft BF_600_3_SF_AS_660UV N_0,22	600	3	SMA Flat	660	UV Nylon	0,22
aft BF_800_3_SF_AS_880UV N_0,22	800	3	SMA Flat	880	UV Nylon	0,22
aft BF_1000_3_SF_AS_1100UV N_0,22	1000	3	SMA Flat	1100	UV Nylon	0,22

Length code

For other length change the length

Jacket code

For Acrylate Jacket replace N with A in product code.
 For Polyimide Jacket replace N with PI in product code.
 For Tefzel Jacket replace N with T in product code.
 For colored Jacket ask for product code

Wavelength code

For IR Wavelength replace UV with IR

Germanium doped fiber code

For Germanium doped fiber (high NA) add to AS, GE (AS GE)

AS...IR-BARE FIBERS

FIBER DESIGN

- Fiber design: Pure fused silica core (low OH⁻)
 - Fluorine doped fused silica cladding
 - Acrylate coating (-40°C to 85°C)
 - Silicone resin coating (-40°C to 180°C)
 - Polyimide coating (-190°C to 385°C)
- Jacket:
 - Nylon (-40°C to 100°C)
 - ETFE (-200°C to 150°C)
 - Acrylate (-40°C to 85°C)

FIBER PROPERTIES

- Core/clad ratio: 1.1, 1.2, 1.4
- Numerical aperture: 0.22 ± 0.02
- Operation wavelength range: 350 nm to 2600 nm
- Proof test level (bend method): 70 kpsi
- Bend radius:
 - momentary 100 times the fiber radius
 - long term 600 times the fiber radius
- Laser damage threshold: > 5 J/mm² (Nd:YAG, 1ms pulse at 1060 nm)
> 1.3 kW/mm² (Nd:YAG, cw at 1060 nm)

OPTIONS

- Core/clad ratios 1.15, 1.30,
- Numerical apertures 0.07 to 0.28
- Metal coating (-190°C to 750°C)
- Fiber bundles
- Tapered fibers
- Connectors (SMA, FC/PC, ST, DIN)
- AS-Fiber cables

aft AS...IR-BARE FIBERS

CODE DESCRIPTION

IR

BARE FIBER WITH NYLON JACKETED

Order code	Core [μm] $\pm 2\%$	Length (meter) +0 /-0,2	Connector Fiber tip	Clad [μm] $\pm 2\%$	Wavelength Jacket Material	Numerical aperture NA
aft BF_100_3_SF_AS_110IR N_0,22	100	3	SMA Flat	110	UV Nylon	0,22
aft BF_200_3_SF_AS_220IR N_0,22	200	3	SMA Flat	220	UV Nylon	0,22
aft BF_300_3_SF_AS_330IR N_0,22	300	3	SMA Flat	330	UV Nylon	0,22
aft BF_400_3_SF_AS_440IR N_0,22	400	3	SMA Flat	440	UV Nylon	0,22
aft BF_600_3_SF_AS_660IR N_0,22	600	3	SMA Flat	660	UV Nylon	0,22
aft BF_800_3_SF_AS_880IR N_0,22	800	3	SMA Flat	880	UV Nylon	0,22
aft BF_1000_3_SF_AS_1100IR N_0,22	1000	3	SMA Flat	1100	UV Nylon	0,22

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HPCS...-IR / UV BARE FIBERS

FEATURES

FIBER DESIGN

- Fiber design: Pure fused silica core
Polymer cladding (-50°C to 120°C)
- Jacket: ETFE (-200°C to 150°C)

FIBER PROPERTIES

- Numerical aperture: 0.55 (2 meters)
- Operation wavelength range: 300 nm to 1100 nm (HPCS-UV)
400 nm to 1600 nm (HPCS-IR)
- Proof test level (bend method): 70 kpsi
- Bend radius: momentary 100 times the core radius
long term 600 times the core radius

IR

BARE FIBER WITH NYLON JACKETED

Order code	Core [μ m] $\pm 2\%$	Length (meter) +0 /-0,2	Connector Fiber tip	Wavelength Jacket Material	Numerical aperture NA
aft BF_100_3_SF_HPCS_IR N_0,37	100	3	SMA Flat	IR Nylon	0,37
aft BF_200_3_SF_HPCS_IR N_0,37	200	3	SMA Flat	IR Nylon	0,37
aft BF_300_3_SF_HPCS_IR N_0,37	300	3	SMA Flat	IR Nylon	0,37
aft BF_400_3_SF_HPCS_IR N_0,37	400	3	SMA Flat	IR Nylon	0,37
aft BF_600_3_SF_HPCS_IR N_0,37	600	3	SMA Flat	IR Nylon	0,37
aft BF_800_3_SF_HPCS_IR N_0,37	800	3	SMA Flat	IR Nylon	0,37
aft BF_1000_3_SF_HPCS_IR N_0,37	1000	3	SMA Flat	IR Nylon	0,37

UV

BARE FIBER WITH NYLON JACKETED

Order code	Core [μ m] $\pm 2\%$	Length (meter) +0 /-0,2	Connector Fiber tip	Wavelength Jacket Material	Numerical aperture NA
aft BF_100_3_SF_HPCS_IR N_0,37	100	3	SMA Flat	UV Nylon	0,37
aft BF_200_3_SF_HPCS_IR N_0,37	200	3	SMA Flat	UV Nylon	0,37
aft BF_300_3_SF_HPCS_IR N_0,37	300	3	SMA Flat	UV Nylon	0,37
aft BF_400_3_SF_HPCS_IR N_0,37	400	3	SMA Flat	UV Nylon	0,37
aft BF_600_3_SF_HPCS_IR N_0,37	600	3	SMA Flat	UV Nylon	0,37
aft BF_800_3_SF_HPCS_IR N_0,37	800	3	SMA Flat	UV Nylon	0,37
aft BF_1000_3_SF_HPCS_IR N_0,37	1000	3	SMA Flat	UV Nylon	0,37

aft ASGE...-BARE FIBERS

CODE DESCRIPTION

AS GE BARE FIBER WITH NYLON JACKETED

Order code	Core [μ m] $\pm 2\%$	Length (meter) +0 /-0,2	Connector Fiber tip	Clad [μ m] $\pm 2\%$	Wavelength Jacket Material	Numerical aperture NA
aft BF_100_3_SF_ASGE_110 N_0,4	100	3	SMA Flat	110	UV Nylon	0,4
aft BF_200_3_SF_ASGE_220 N_0,4	200	3	SMA Flat	220	UV Nylon	0,4
aft BF_300_3_SF_ASGE_330 N_0,4	300	3	SMA Flat	330	UV Nylon	0,4
aft BF_400_3_SF_ASGE_440 N_0,4	400	3	SMA Flat	440	UV Nylon	0,4
aft BF_600_3_SF_ASGE_660 N_0,4	600	3	SMA Flat	660	UV Nylon	0,4
aft BF_800_3_SF_ASGE_880 N_0,4	800	3	SMA Flat	880	UV Nylon	0,4
aft BF_1000_3_SF_ASGE_1100N_0,4	1000	3	SMA Flat	1100	UV Nylon	0,4

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NA range for Germanium doped fiber

Available from 0,28 - 0,4