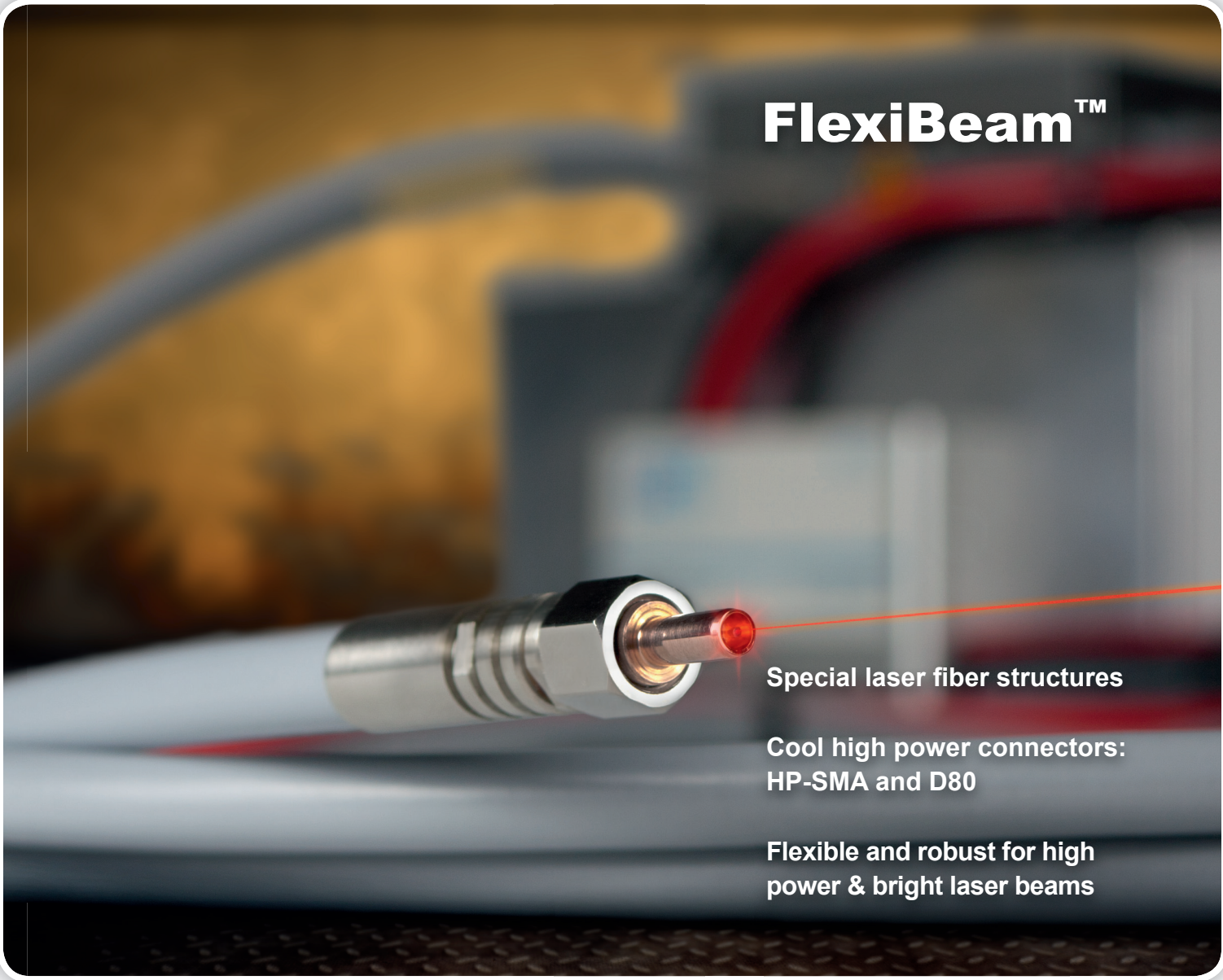


High Power Fiber Cables

A close-up photograph of a FlexiBeam fiber cable. The cable is white with a silver-colored metal connector at the end. A bright red laser beam is being emitted from the tip of the cable. The background is blurred, showing industrial equipment.

FlexiBeam™

Special laser fiber structures

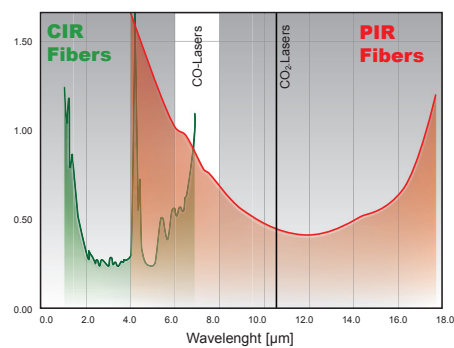
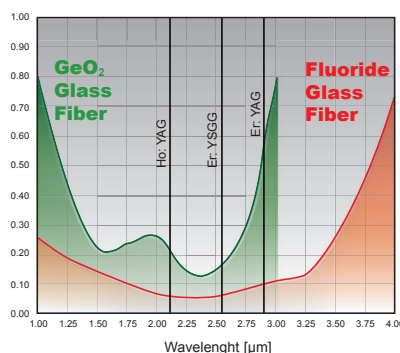
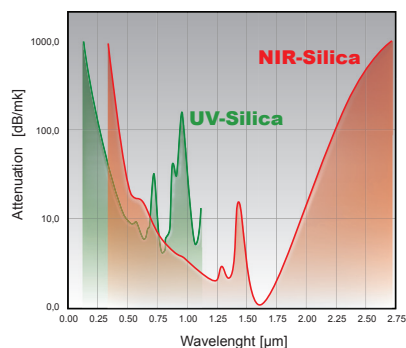
Cool high power connectors:
HP-SMA and D80

Flexible and robust for high
power & bright laser beams

ART Photonics product line **FlexiBeam™** is the latest generation of High Power Fiber Cables produced for various lasers in broad spectral range. **FlexiBeam™** HP-cables deliver much higher power compared to the similar cables in result of specialty laser fiber combination with the proprietary connector design. This synergy enables long HP-cable life while high power density is delivered and connectors stay cool.

Applications:

- Laser welding of metals & plastics
- Laser Cutting & Drilling
- Rapid Surface Processing
- Medical Laser Power Delivery
- Laser Target & Rangefinder
- Laser Spectroscopy



Fiber	Specification	Core shape
Core shape Core material Cladding Protective jacket material Standard NA on request: Protective tube High Power Connectors	Round (other shape – on request) Pure fused silica: High OH- ($\lambda = 0.18 - 1.2 \mu\text{m}$) Low OH- ($\lambda = 0.35 - 2.5 \mu\text{m}$) Fluorine doped fused silica Nylon, Tefzel, Acrylate, Polyimide, Metal 0.22 ± 0.02 (Full Acceptance Angle 25°) 0.12 ± 0.02 (Full Acceptance Angle 14°) 0.26 ± 0.02 (Full Acceptance Angle 30°) Polymer coated Stainless Steel Tubing HP-SMA, D80	

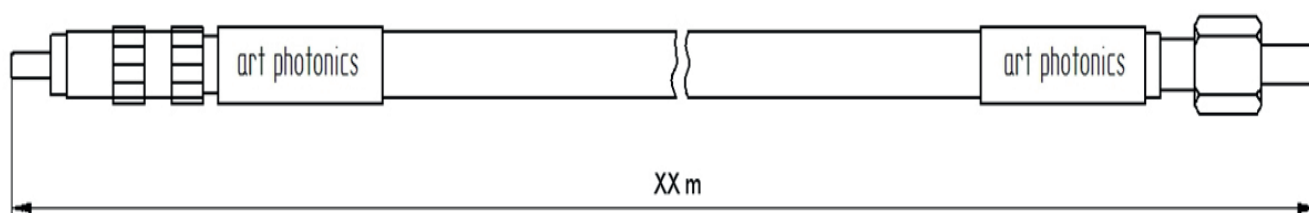
Laser Power Matrix to select fiber core / connector of *FlexiBeam*™ HP-cable*

Fiber core diameter	100 μm	200 μm	400 μm	600 μm
HP-SMA connector	100 W	200 W	300 W	400 W
D80 connector	150 W	400 W	600 W	800 W

*Max power level is only indicated approximately – as it depends on laser beam profile, coupler parameters and on heat dissipation conditions for input & output connectors

HP-SMA-connector

D80-connector



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