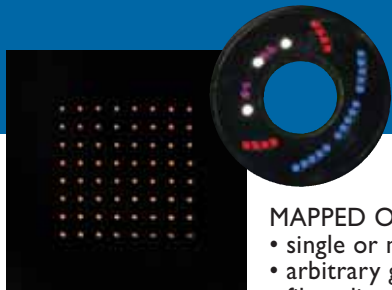




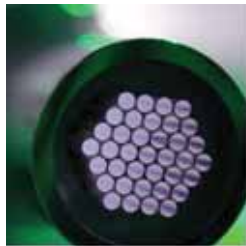
FIBER OPTIC ASSEMBLIES for research, industrial, medical and military applications. FiberTech Optica has capabilities from custom design, engineering, prototyping through to volume production.



MAPPED OR STRUCTURED

- single or multi-branch
- arbitrary geometries and fiber distributions
- large fiber counts

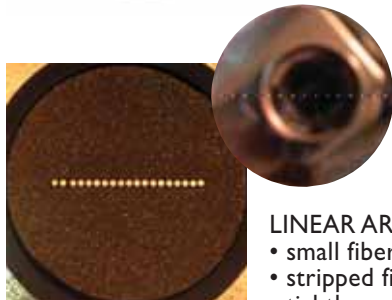
*"Serpentine" mapped 2D array
Specialized reflectance probe*



HIGH POWER

- free-standing fibers
- single fiber or bundle construction
- epoxy-free light path

Free-standing bundle of 37 fibers



LINEAR ARRAYS

- small fiber core sizes (<math><50\mu\text{m}</math>)
- stripped fibers
- tightly packed or spaced

*Array of $50\mu\text{m}$ fibers inside SMA connector
Slit of 19 fibers spaced 2mm apart*



NEEDLES

- single or multiple fibers
- straight or angle polished
- smallest diameter $250\mu\text{m}$

6-around-1 needle, $950\mu\text{m}$ in diameter



VACUUM

- penetrating or receptacle feedthroughs
- single or multiple fibers

Receptacle feedthroughs with NPT thread and SMA connectors



REFLECTANCE PROBES

- arbitrary excitation/collection geometries
- industrial or laboratory grade

29-around-7 curved tip probes



MULTIPLE BRANCH

- any number of branches
- custom fiber distribution
- variable branch lengths

128 branch 2D array



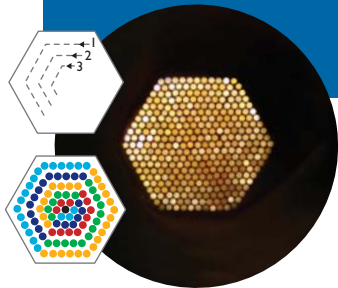
INDUSTRIAL

- lengths up to 350 meters
- rugged, with multiple levels of protection
- reinforced connectors/ferrules
- high temperature/pressure

300 fiber bundle, 10 meters long

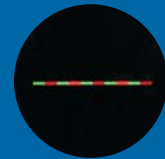


FIBER OPTIC ASSEMBLIES with application-specific designs. Custom configurations and fiber mappings. Wide selection of fiber parameters/properties. FiberTech Optica has capabilities from custom design, engineering and prototyping through to volume production.



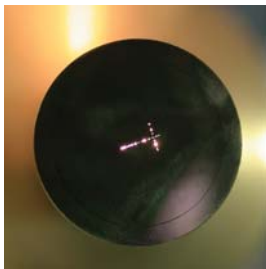
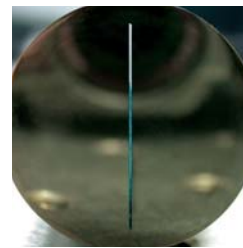
MAPPED

- sensing application
- 337 fibers, 100µm core
- successive layers within hexagonal end arranged along the linear array



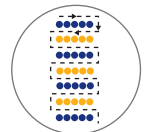
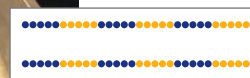
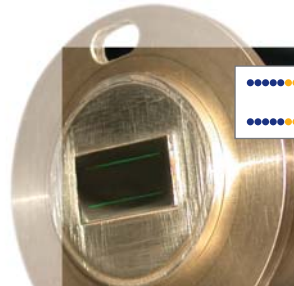
FIBER ARRAYS

- single or multi-channel
- arbitrary fiber distribution
- straight or curved geometry
- randomized, mapped or coherent



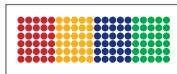
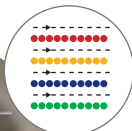
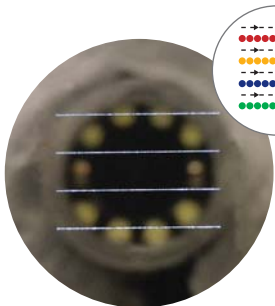
MULTIPLE BRANCH

- 55 branches
- 50µm core fibers
- fibers arranged into a cross within 2mm diameter circle



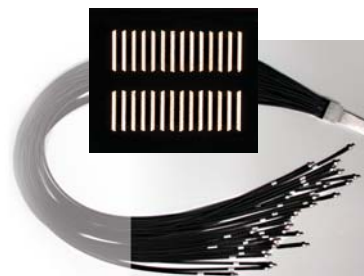
MAPPED

- imaging application
- 460 fibers, 40µm core
- successive layers within 2D array mapped into segments within 2 parallel arrays



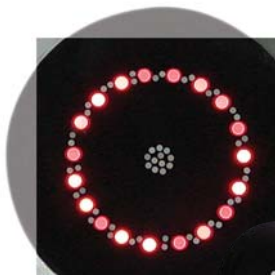
MAPPED

- imaging application
- 648 fibers, 50µm core
- successive layers within 2D array mapped into segments within 4 parallel arrays



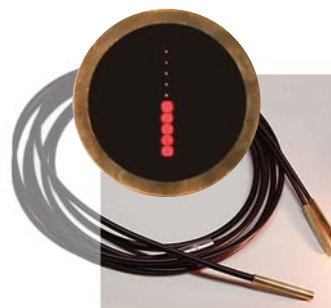
CUSTOM BUNDLE

- 1148 fibers, 200µm core, divided into 28 channels
- EDM machined parts



MIXED FIBER

- different fiber sizes/types
- single or multi-branch
- arbitrary geometries and fiber distributions
- large fiber counts

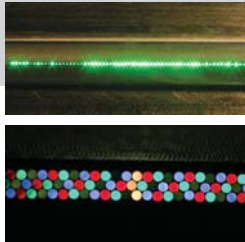


MASKED

- custom mask to modify fiber output
- precise ($\pm 5\mu\text{m}$) alignment



FIBER OPTIC ASSEMBLIES for state-of-the-art scientific instrumentation applications in astronomy, medical imaging and spectroscopy. Featuring high precision fiber arrangements, complex routing and mapping, custom designed mechanical fixtures.

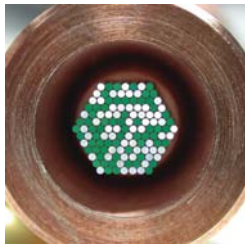


ASSEMBLIES FOR ASTRONOMY

- specific routing among branches
- fibers arranged in specific pattern
- no dead or mis-mapped fibers allowed
- uniform throughput

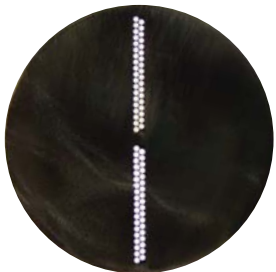
HIGH POWER BUNDLE

- 127 fibers
- epoxy free input assembly
- high energy pulsed laser source
- bifurcated with randomization



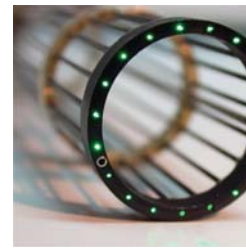
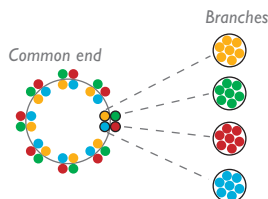
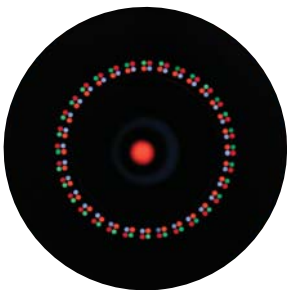
DUAL RANGE SPECTROGRAPH ARRAY

- 100µm core fibers
- precision slit separation
- no broken fibers allowed



PROBE FOR CHEMICAL SENSING

- uniform sampling
- 132 x 200µm core fibers
- precise fiber spacing
- no broken or mis-mapped fibers allowed



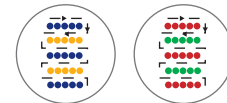
ILLUMINATION BUNDLE FOR MEDICAL IMAGING

- 19 x 300µm fibers in a 21 mm diameter ring assembly
- fiber output uniformity within 5%
- angled output face
- thin cage design to meet customer's constraints



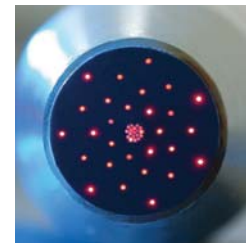
IFU ASSEMBLY

- 338 fibers, 17µm core
- successive layers within 1.2 mm square 2D array mapped into segments within linear arrays



BIOMEDICAL SPATIALLY OFFSET PROBE

- successive rings of fibers spaced further apart from the excitation bundle
- ring spacings to within 25µm
- no broken fibers allowed



ARRAY OF BUNDLES

- groups of 7 x 100µm core fibers arranged in tight spots
- precise ($\pm 10\mu\text{m}$) spacing of groups along a line

