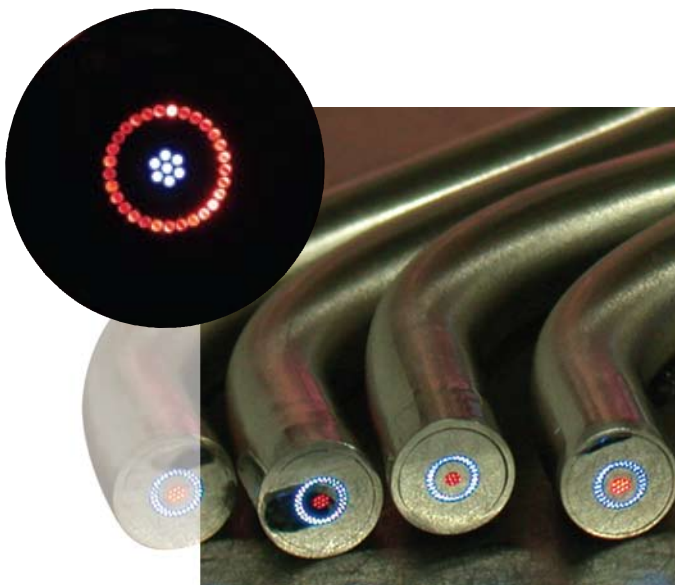
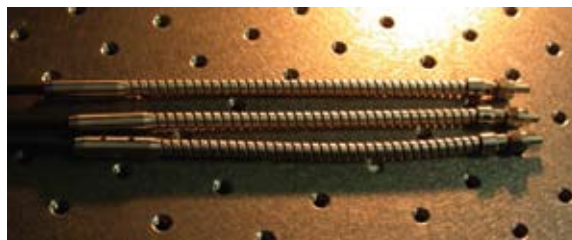
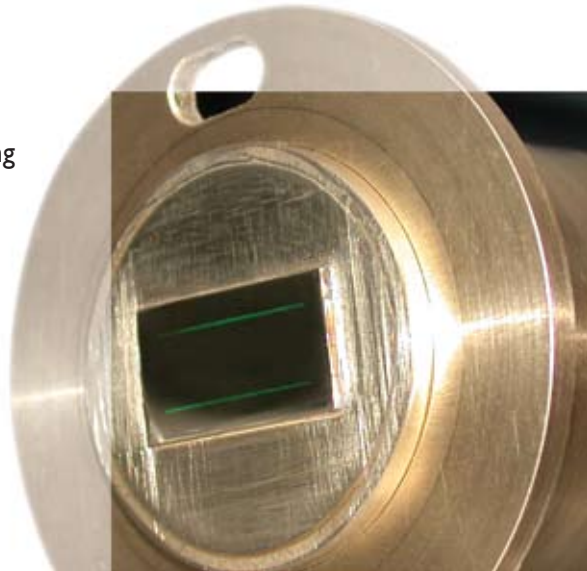
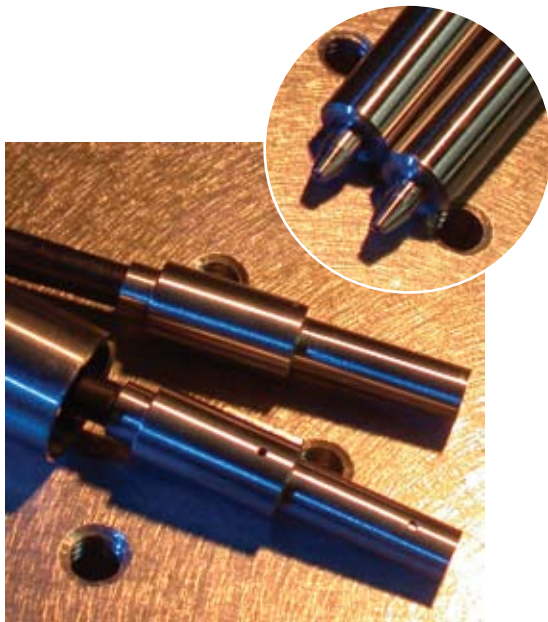




## FEATURES

- concept and prototype development
- virtual prototyping: optical design and solid modeling
- customer driven design

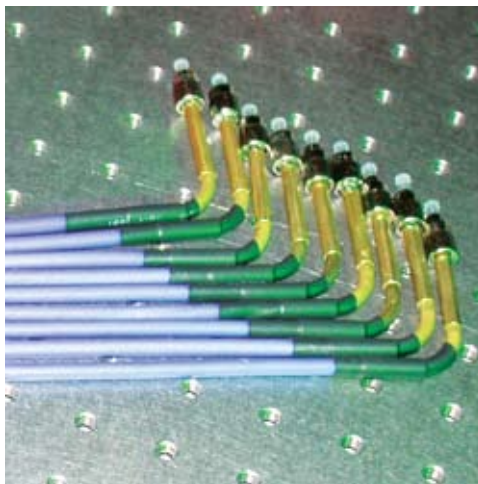
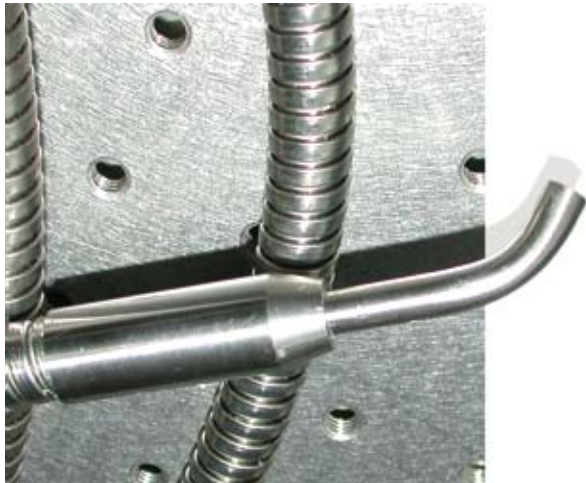


# ANGLED TIP ASSEMBLIES



## FEATURES

- small bend radii
- tight bend tolerance
- various angles





## FEATURES

- custom ferrules
- linear arrays
- fiber mapping
- multi-branch



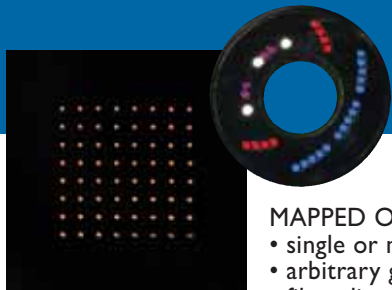
*Front view of  
the ferrule*







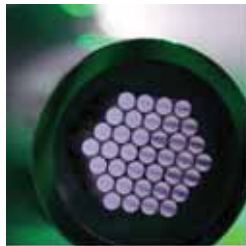
FIBER OPTIC ASSEMBLIES for research, industrial, medical and military applications. FiberTech Optica has capabilities from custom design, engineering, prototyping through to volume production.



### MAPPED OR STRUCTURED

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

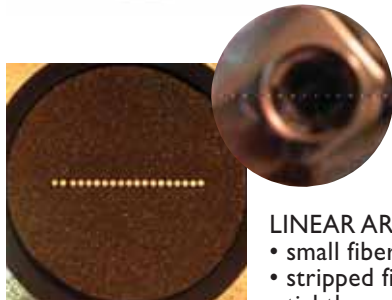
*"Serpentine" mapped 2D array  
Specialized reflectance probe*



### 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*



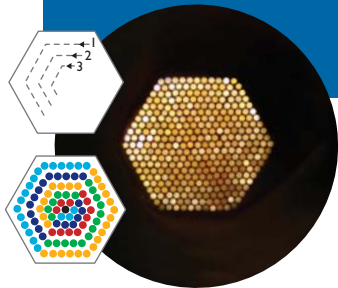
### INDUSTRIAL

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

*300 fiber bundle, 10 meters long*

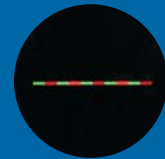


FIBER OPTIC ASSEMBLIES with application-specific designs. Custom configurations and fiber mappings. Wide selection of fiber parameters/properties. FiberTech Optica has capabilities from custom design, engineering and prototyping through to volume production.



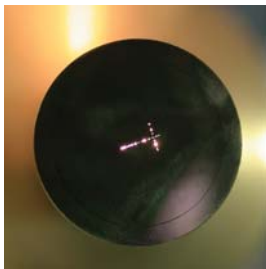
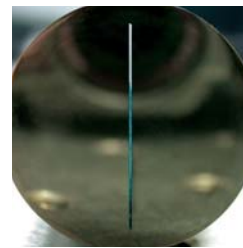
**MAPPED**

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



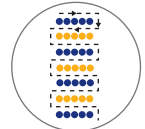
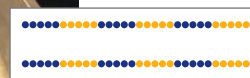
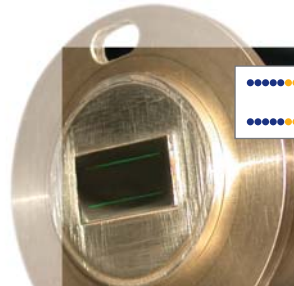
**FIBER ARRAYS**

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



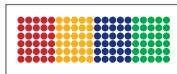
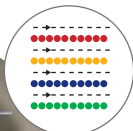
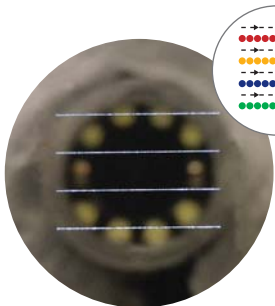
**MULTIPLE BRANCH**

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



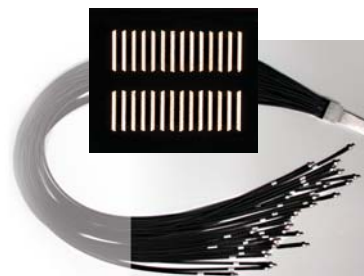
**MAPPED**

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



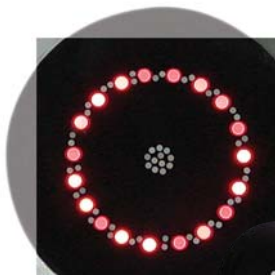
**MAPPED**

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



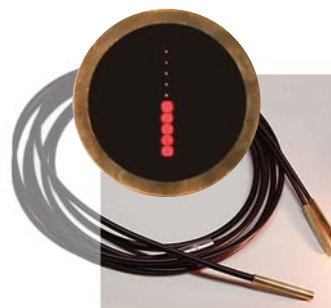
**CUSTOM BUNDLE**

- 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