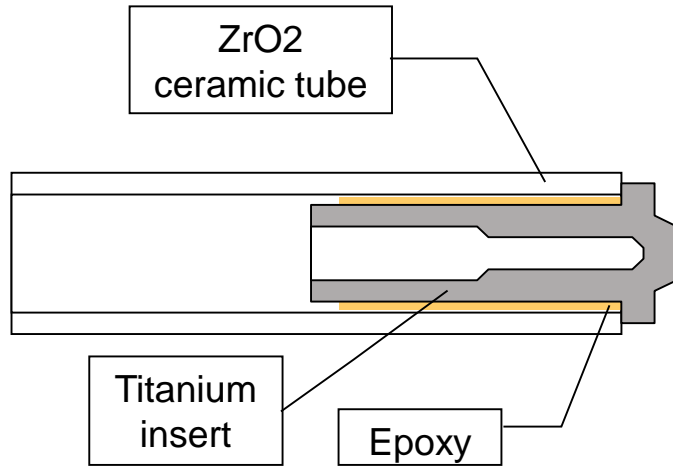


Multi-Fiber 2.5mm base ferrule

For Sensors, Medical, Space and Aeronautics custom applications

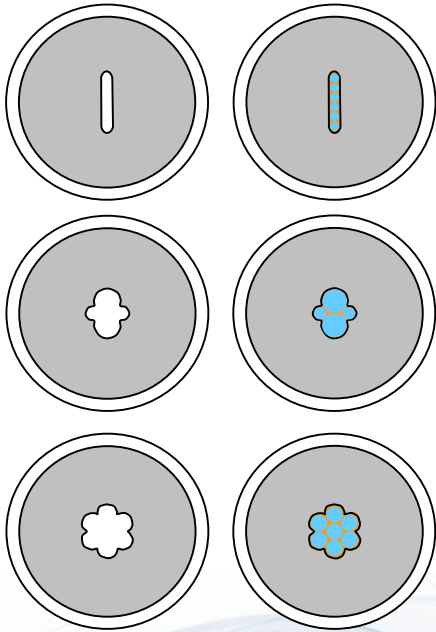


Ferrule base Technology



- Ceramic – Titanium insert ferrule
- Available on all standard connector
- Preferably used with simple DMI compact connector
- Requires orientation capability similar as PM connectors

Custom Ferrule hole drilling



- Ceramic-Titanium insert ferrule
- Metal monobloc ferrule upon request (stainless steel)
- Any shape size for 50 μ m to 600 μ m fiber available
- Shape form accuracy <3 μ m
- Shape form concentricity <5 μ m

Features and Benefits



Features

- Accurate shapes
- Customizable shape for custom fibers
- Small CTE (7-10ppm/°C)

Benefits

- Compactness
- Use of standard connectors and processes
- Cost effective

Hyper spectral imaging in Space

Each pixel of an image are measured through a spectrometer

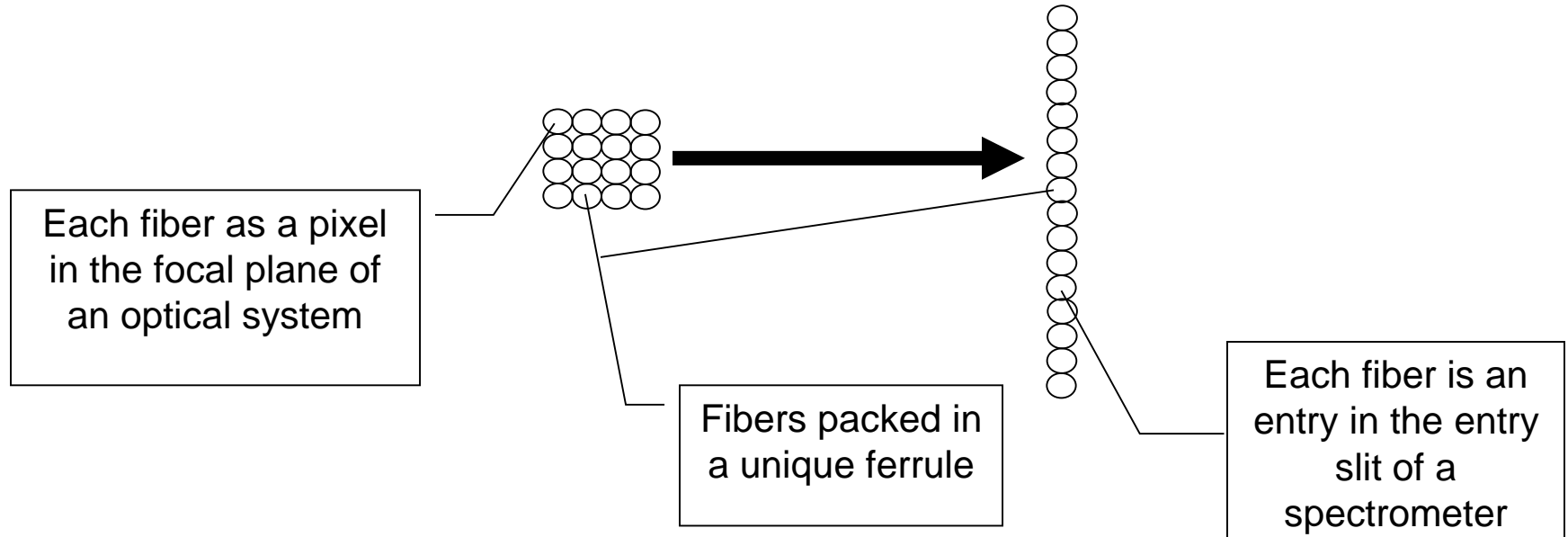
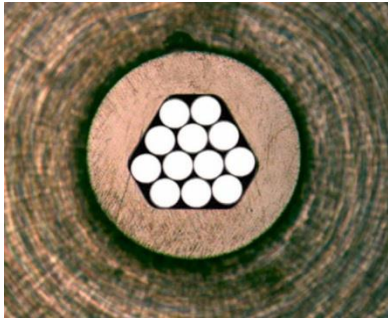


Image side

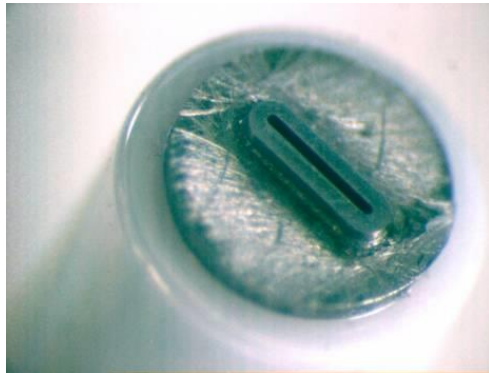


- Shape drilled to snugly fit 12 custom 70/77 fibers
- Shaped built to specification within microns of specs

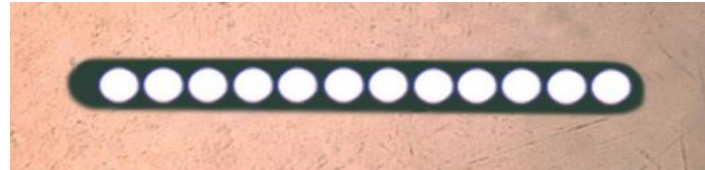
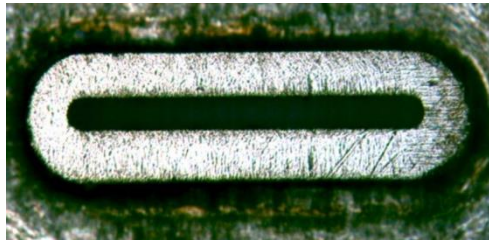


12x hex. fibers

Spectrum Analyzer side



- Shaped extremely difficult. Slit of $80\mu\text{m}$ width achieved with few microns accuracy
- Designed for 12 fibers $70/77\mu\text{m}$



12x in-line fibers

Project: NASA LRO - LOLA



Developed for Melanie Ott, Photonics groups,
NASA - Goddard SFC

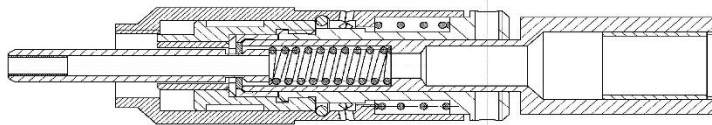
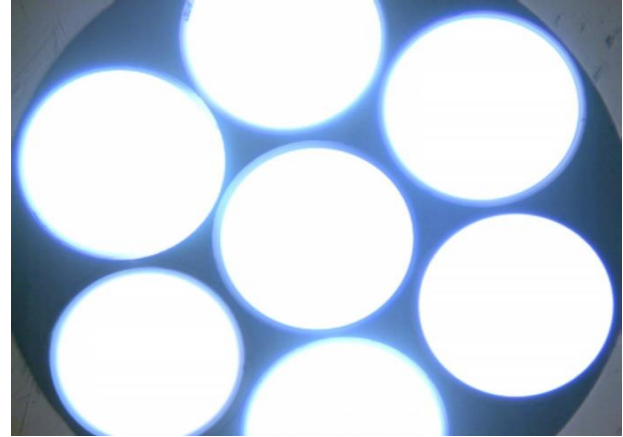
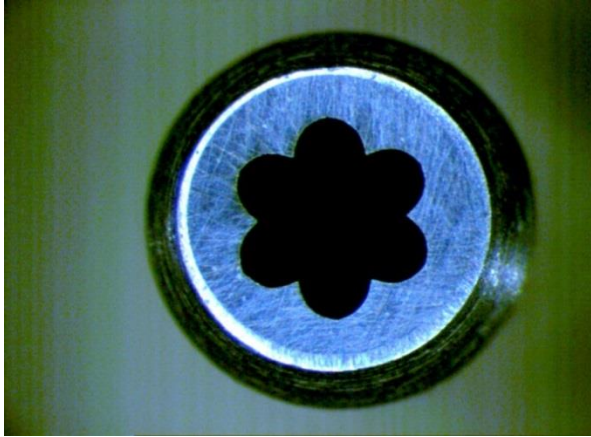
NASA Requirements

- Multi-fiber (used for redundancy)
- AVIM® connector (long history in space)
- Seven large core fibers
- Orientation adjustable

Diamond Solution

- AVIM® PM in Stainless steel
- PM for rotational adjustments to orient the seven fibers with set screws
- Complete connector and custom ferrules built in several weeks
- Ferrule in low CTE Stainless steel

Large core 7ch Low CTE steel ferrule

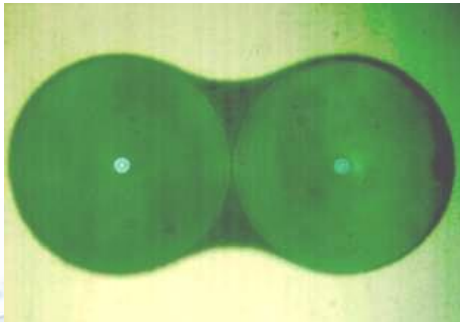


Custom AVIM® for alignment capabilities

Duplex Ferrule



- Custom application
- Telecom FTTx application
- MM validated
- SM in progress





www.diamond-fo.com

