Multicore Fiber Fanouts

Multicore Fiber (MCF) fan-outs provide the ability to launch and retrieve signals to and from individual fiber cores.

Multicore fibers are used for sensing applications and for increasing the transmission density of a single fiber in long haul applications. In a MCF fan out, a bundle of fibers matching the number of cores are placed together and tapered until the core spacing matches that of the MCF. This fused structure is then cleaved and spliced onto the end of a multicore fiber, providing a method to access the individual cores at both the input and output ends of the multicore fiber.

The core alignment must be maintained on a sub-micron scale and requires a very uniform heating and tapering process to ensure the taper is adiabatic and that the core spacing remains uniform. AFL has the capability to produce 4-fiber and 7-fiber multicore fiber fanouts through this process.

**Features**
- Low loss
- Custom geometries for the number of cores and core distribution
- Easy access to individual cores
- Connectorization available

**Applications**
- Long haul telecommunications
- Sensing