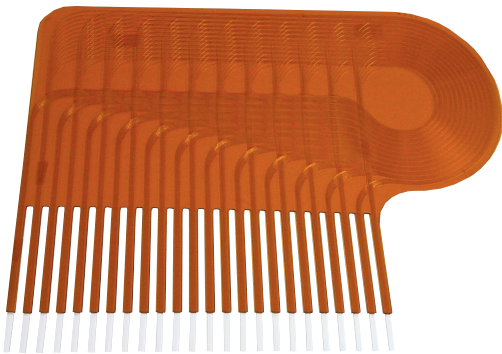


# OPTICAL FLEX CIRCUITRY



## OPTIMIZING FIBER MANAGEMENT ON THE OPTICAL BACKPLANE

**STRATOS** Lightwave™  
*Innovation Brought To Light*

# FIBER OPTIC CIRCUITS

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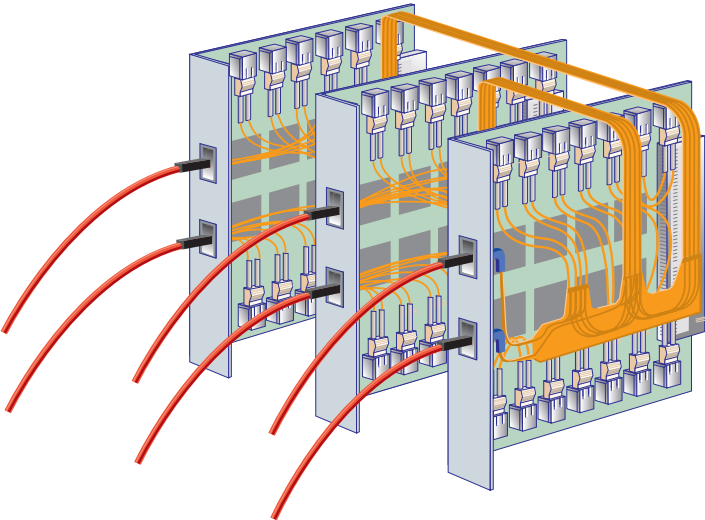
## Sample Circuits



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Optical Flex Technology Developed by

# OPTICAL FLEX CIRCUITRY



Optical Flex circuitry is designed to optimize complex fiber optic layouts with extremely high fiber count, providing system designers with real solutions to growing fiber management problems. Developed by Advanced Interconnection Technology, Inc. (AIT), these compact circuits have all channels, ports and fiber routings preconfigured to reduce installation time and simplify system architecture. With few limits to the size, shape or routing matrix, this unique process can greatly simplify the design and production of fiber interconnection products.

AIT’s filament embedding technology allows continuous lengths of optical fiber (Singlemode or Multimode) to be bonded to substrate materials in precise, predetermined path locations. Fiber paths can intersect such that the fibers cross over one another in the manufacturing process without becoming damaged or incurring significant micro-bending losses.

## Benefits

- Improves fiber management
- Reduces installation time and costs
- Simplifies system architecture
- Minimizes micro-bend and macro-bend losses
- Provides positive fiber orientation

## Features

- High fiber count
- Flexible, thin and lightweight
- Singlemode or Multimode applications
- Flame resistant substrate (VO rated)

## Applications

- Flexible optical harnesses, breakouts and shuffles
- Backplane interconnection assemblies
- Intra-rack fiber management
- Optical Cross-Connects
- On board Flex Circuits

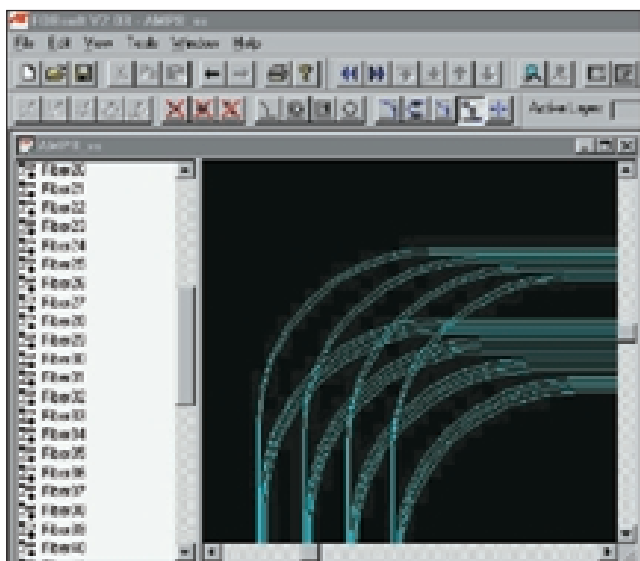
## Connector Assembly

As a subsidiary of Stratos Lightwave, Inc., AIT can also provide complete termination services for all Optical Flex circuits. Circuits can be terminated with a wide variety of industry-standard connectors, including MPX™, MT-RJ, MTP, MP, LC, FC, ST, SC and MU. All circuits terminated at Stratos Lightwave are optically tested, providing system designers with a true plug-and-play option in the optical domain.

## Performance

- Optical Fiber Nominal OD . . . . . 250µm
- Minimum Fiber to Fiber Spacing . . . . . 250µm
- Circuit Thickness . . . . . 0.6mm
- Maximum Circuit Dimensions . . . . . 500mm x 500mm
- Matched Length Tolerance . . . . . <+/-4mm
- Minimum Bend Radii . . . . . 25mm
- Operating Temperature . . . . . -25°C to +85°C
- Maximum Insertion Loss . . . . . <0.1db (before connecturization)

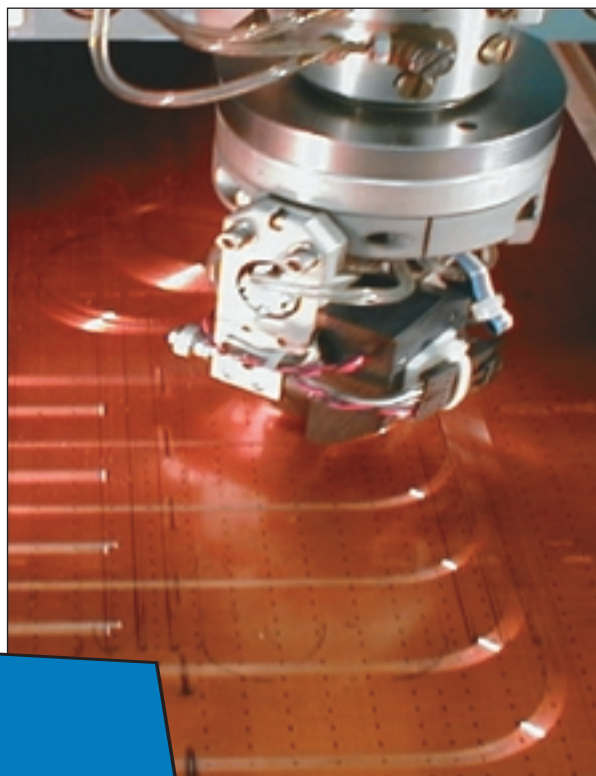
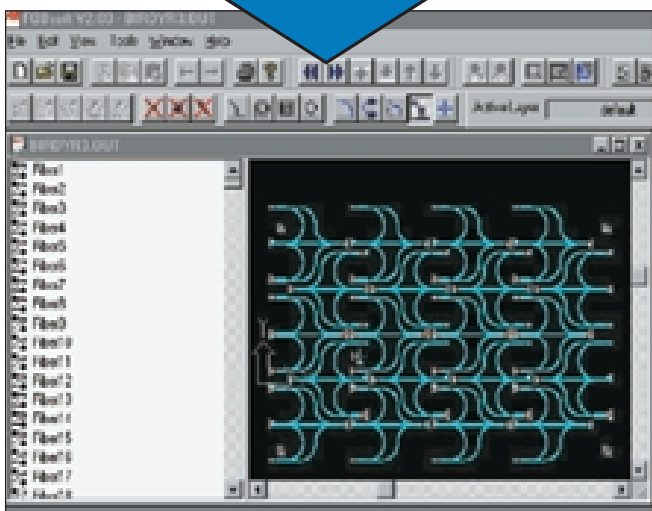
# OPTICAL FLEX DESIGN SOFTWARE



Optical Flex circuitry is made possible with AIT's FOBsoft™ circuit design software. FOBsoft™ is a complete fiber optic circuit layout tool, allowing designers to create nearly any fiber routing scheme. True 3-dimensional fiber management capabilities help to minimize fiber microbends and macrobends, enhancing the long-term reliability of the fiber and reducing attenuation of the signal.

## Software Functions:

- Design complete optical interconnection layouts
- Interactive point-to-point interconnect
- Precisely match fiber lengths
- Design layouts in three dimensions
- Import and export commonly used DXF files
- Create fiber buses on the fly
- Apply appropriate bend radii to fiber
- Easy geometry conversion
- Access databases directly
- Optimize fiber layouts



## Company Contact Information

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