Sub-Micron Precision MxN Fiber Optic Arrays

Fiberguide Industries designs and manufactures the highest precision MxN arrays found on the market today. Typical uses for arrays are optical switching, astronomical analysis and military mapping.

Features

- More than 1500 arrays manufactured to date.
- All arrays meet or exceed Telcordia GR-1221-CORE: Reliability Qualification Requirements for Passive Optical Components.
- Each array is manufactured to the customer’s own unique application and/or specification.
- Center-to-center pitch can be from 150 microns to 5 mm.
- Arrays can be designed using Single mode, or multimode fiber. Distal ends can be provided cleaved, polished, or terminated with a variety of standard connectors or custom end fittings.
- Detailed documentation is provided with each array on Fiber position, Insertion Loss, Flatness, Return Loss, Fiber Z axis Position, RMS for fiber Roughness, Fiber to Fiber Angularity, and Fiber to Substrate Angularity.

Typical Fiber Optic Array Performance Results

- Fiber Position (Core to Core Non-Cumulative) < 0.5 um
- Insertion Loss with LC (Connector Dependent) < 0.09 dB
- Flatness (PV) for 25X25mm Area < 1 micron
- Return Loss @ 1310nm and 1550nm < 33.0 dB
- Fiber Protrusion/Recession < 0.1 um
- RMS Fiber Roughness < 10 nm
- Fiber Angularity (Fiber to Fiber Non-Cumulative) < 2.5 mrad
- Fiber Angularity Relative to Substrate Normal < 5 mrad
- Fiber Yield > 99%

Fiberguide Industries Customization Program

Fiberguide Industries is a full service custom fiber and value-added assembly provider. If you have unique requirements, please contact us to discuss tailoring a product or design to optimize optical performance for your specific application.