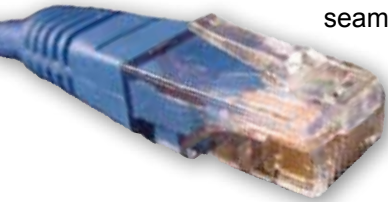


## RJ45

Adapted from the “registered jack” telephone plug, the RJ45 is a modular connector used in twisted pair Ethernet applications. The RJ45 utilizes 8 contacts that connect with four sets of twisted pair wires. Plugs are commonly terminated to Category 5 cable, which relies on the innate noise rejecting properties of twisted pair wires to eliminate cross talk—although shielded iterations of Cat5 wire are becoming increasingly available. The ubiquity of RJ45 connectors in the personal computer and internet industries make it an ideal choice for users seeking a reliable, seamless integration into an existing interconnection network.



## Universal Serial Bus

Universal Serial Bus—or USB—is a standardized connection device used to link computers and peripheral devices. Introduced in 1996, the USB 1.0 connector eliminates the need for proprietary—and often bulky—serial ports used to connect printers, keyboards and other electronic controllers. The small universal connection is capable of carrying signal and power via four leads in a “plug and play” format, thus reducing the need for redundant cables to a given device.

Shortly after its inception, the second generation “USB 2.0” connector was released, boasting a 4000% increase in transfer speed and an expanded list of compatible devices. Additionally, a host of new connector types—including USB-B, mini and micro—were introduced to accommodate smaller devices, such as phones, PDA’s and cameras. The newest-generation “USB 3.0” connector will add two additional pairs of shielded twisted pair wire, enabling full duplex operation and a transfer rate of 4.8 Gbits/second.



## USB-A

USB-A is the most commonly specified style within the connector family—often found on computer keyboards, mice, printers and flash-memory cards. The USB-A connector has a broad, flat rectangular shell that houses all four contacts on one side. USB-A plugs are typically inserted into “downstream port” receptacles on the USB host or a hub.

## USB-B

Like its type A brethren, the USB-B houses four leads capable of carrying both signal and power. Unlike the type A, however, the plug is square with chamfered outer edges, and distributes the placement of the contacts on opposing sides of the plug, with two contacts on the top and two on the bottom.

## Quadrax

Quadrax contacts, in a sense, act as a “connector within a connector”, housing four discrete size 24 pin or socket contacts within each keyed size 8 crimp body. Two sets of twisted pair wires terminate to the size 24 contacts, while the overall shield is grounded via the outer size 8 shell—affording 360° shielding. These high speed champs boast superb EMI compatibility for high data transfer applications where little or no power is needed. Additionally, standard crimping tools can be used to terminate all components, making shop or field assembly fast and simple.



## Integration

Glenair has bridged the gap between high performance data transmission systems and rugged field-ready circular connectors by integrating the two into a single, refined package. Users will no longer have to worry about damaging delicate high bandwidth connections in harsh conditions. The MIL-DTL-5015 or MIL-DTL-26482 type connector shells provide impact resistance, ingress protection and positive coupling—all in a wide array of finishes and shell styles.



## Special IFO Series Fiber Optic Solutions

Fiber optic connectors, termini and cables are ideally suited for high-reliability settings such as commercial, military, mass-transit and naval applications. Glenair is unique in the industry for our vertical ability to design, produce and deliver high-speed I/O interconnect cables and harnesses including fiber optic cabling for extreme environmental exposure, corrosion resistance, improved fiber tensile strength and resistance to micro-bending.

We are a recognized leader in the manufacture of high-reliability fiber optic connection systems for the most advanced and challenging systems, including every branch of the military as well as industrial markets in every configuration requirement.

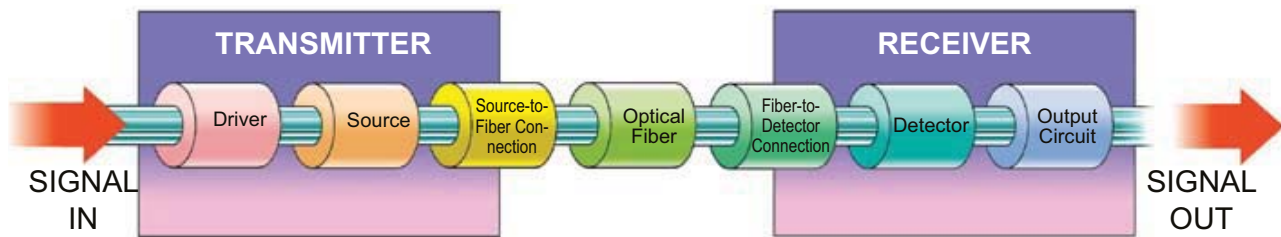


## High-Speed Series IFO Fiber Optic Configurations

Based on our proven harsh environment ITS Ruggedized Connectors Series, the IFO fiber optic version offers several configurations utilizing 2, 4, 6, or 12 fiber optic termini in a single connector.

Available termini can accommodate 9/125 (Single-Mode), 50/125 and 62/125 (Multi-Mode) optical fibers.

### Basic Fiber Optic Link



## EMI and Spark/Arc Immunity

Optical fiber is particularly useful in high reliability applications due to its electromagnetic immunity. Since fiber optic media uses light to transmit signals, it is not subject to electromagnetic interference, radio frequency interference or voltage surges, and so provides greater transmission reliability. The total electrical isolation of fiber also makes it a safer, spark-free media for use in hazardous environments, such as high speed rail signals, tactical field communications, and Naval applications.

