Detectors

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Firecomms™

LASER
COMPONENTS®

PRODUCT
GUIDE

Firecomms

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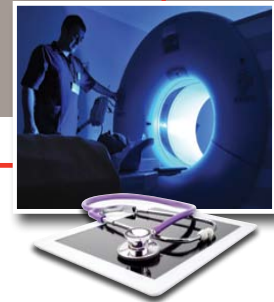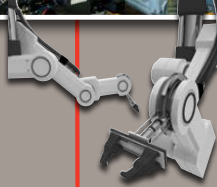info@lasercomponents.co.uk
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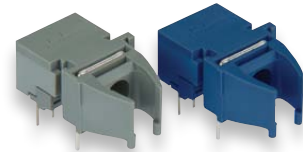**LASER COMPONENTS**

S O L U T I O N S.

Firecomms Product Families

OptoLock® plugless fiber optic transceivers provide instant termination of bare Plastic Optical Fiber (POF) to significantly quicken and simplify the connection of devices. The design of OptoLock, patented by Firecomms, enables the fiber to be cut and terminated to the exact required length on site for the fastest and simplest field installs.
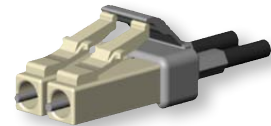
The LC terminated fiber optic connector standard 61754-20 has been broadened beyond glass, by the IEC, to include additional fibers. Firecomms family of LC transceivers will expand the use of this very popular form factor for use with POF and Plastic Clad Silica (PCS) cables. Because of its common form factor, users now will be able to utilize cost-efficient cable assemblies for shorter run lengths, while retaining the option of smaller core glass fibers for those extra long runs.

RedLink™ is Firecomms answer to fiber optic transceivers compatible with the widely available Versatile Link range of connectors. Extensively used in the industrial control, transportation, medical, and machine automation markets, the RedLink range of transceivers are designed to operate at DC and data rates up to 50 MBd.

Firecomms cable & connector products complete the offering by providing the flexibility to choose exactly the right cable solution fitting to meet the installation requirements. Provided in the offering are all the components needed to self-assemble the cable or to choose from one of Firecomms' standard length pre-finished cable assemblies. In special cases we'll even consider customizing POF or PCS cable assemblies to order.

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Product Selection Guide

Industrial Products (-40ºC, +85ºC unless otherwise stated)

Name	Part Number	Cross Reference *	Data Rate	Fiber Type	λ-nm	Max Dist. (m)
OptoLock						
Industrial Ethernet Transceiver, LVPECL	FB1M2KPR		10-125 Mbps	POF	650	50
250 Mbps Transceiver (-20ºC, +85ºC)	FB2M5KVR		10-250 Mbps	POF	650	50
Analog Transceiver	FB00AKAR		Analog	POF	650	N/A
LC						
250 Mbps Transceiver (-20ºC, +85ºC)	FB2M5LVR		10-250 Mbps	POF	650	50
Industrial Ethernet Transceiver, LVPECL	FB1M2LPR	AFBR-5972Z	10-125 Mbps	POF PCS	650	50 POF 100 PCS
RedLink						
1 MBd Tx Horizontal	FT01MHNR	HFBR-1522/24	DC-1 MBd	POF	650	37
1 MBd Rx Horizontal	FR01MHIR	HFBR-1522/24	DC-1 MBd	POF	650	37
5 MBd Tx Horizontal	FT05MHNR	HFBR-1521	DC-5 MBd	POF	650	30
5 MBd Rx Horizontal	FR05MHIR	HFBR-2521	DC-5 MBd	POF	650	30
10 MBd Tx Horizontal	FT10MHNR	HFBR-1528	DC-10 MBd	POF PCS	650	50 POF 300 PCS
10 MBd Tx Low Current Horizontal	FT10MHLR	AFBR-1529	DC-10 MBd	POF PCS	650	50 POF 300 PCS
10 MBd Rx Horizontal	FR10MHIR	HFBR-2528	DC-10 MBd	POF PCS	650	50 POF 300 PCS
50 MBd Tx with Integrated Driver, Horizontal	FT50MHNR	AFBR-1624	DC-50 MBd	POF	650	50 POF
50 MBd RX with Integrated Receiver, Horizontal	FR50MHNR FR50MHIR	AFBR-2624 AFBR-2529	DC-50 MBd	POF	650	50 POF

POF = 0.5NA 1mm Core Plastic Optical Fiber
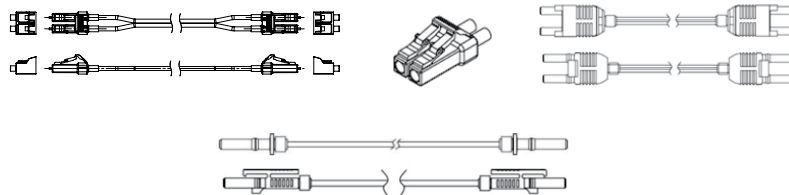PCS = 200μm Plastic Clad Silica Fiber

* Cross reference applies to core part number (for example, FT05MHNR is alternative for HFBR-1521, HFBR-1521Z and HFBR-1521ETZ).

Consumer Products (-20ºC, +70ºC unless otherwise stated)

Name	Part Number	Data Rate	Fiber Type	λ-nm	Max Dist. (m)
Fast Ethernet OptoLock, LVDS	EDL300T-xxx	100 Mbps	POF	650	70
Fast Ethernet OptoLock, LVPECL	ED301T-xxx	100 Mbps	POF	650	70
250 Mbps Transceiver in OptoLock	IDL300T-xxx	250 Mbps	POF	650	50

Cables & Connectors

Firecomms offers a wide range of fiber optic cable, connector and assembly products. Please contact Firecomms directly for more information about our cables & connectors.

Fiber Optic Communications for Industrial and Home Networking Applications

Firecomms products with Plastic Optical or Plastic Clad Fiber (POF/PCS) links offer many advantages in industrial and home networking applications:

EMI/RFI immunity ideal for industrial, harsh, noisy environments

Galvanic isolation between transmitter and receiver, ideal for harsh, noisy industrial environments

Visible spectrum operation enables eye-safe, fast troubleshooting

Low power consumption, transmitters capable of operation at 3-4mA

Durable, flexible and lightweight

Resilient to bending and vibrations

High reliability for extended machine uptime

Industrial temperature in range of -40 to +85°C

Reduced maintenance cycle time provides up to a 20-year lifecycle on transceivers and cables

Simplified field installation for easy termination of large core optical fibers in custom distances

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GLOBAL TECHNOLOGY.

Firecomms is a global leader in the provision of fiber optic solutions and optical transceivers, skillfully combining state-of-the-art compound and silicon semiconductor technology with inventive small-scale integration. A global multinational company, Firecomms is jointly headquartered in Cork, Ireland and Tongxiang, China with additional facilities in the USA, Japan and Southeast Asia. Together with a far reaching network of representatives and distribution channels, Firecomms serves its global clients across a range of power and energy, industrial, transportation, medical and consumer markets.

Firecomms leverages its deep knowledge across our multi-disciplinary teams in developing the broadest range of fiber optic transmitters and receivers specifically suited to our target markets. With an emphasis on world class performance in reliability, Firecomms utilizes internally developed market leading Resonant

Cavity LED (RCLED) photonics with ultra low power CMOS drivers in our transmitters. Together with robust receiver IC architectures, Firecomms products enable ultra low power fiber optic links, from DC up to Gigabit data rates, to ensure extended lifetimes in the harshest of environments.

Ease of connectivity and installation in the field while maintaining robust, reliable interconnects across the industrial temperature range is at the forefront of Firecomms connectivity solutions. Our most popular product families are the patented OptoLock® for the quickest of terminations with bare Plastic Optical Fiber, the well recognized LC connector ratified by the IEC for use with POF and PCS cable assemblies, and our RedLink range of products, which are compatible with the universally known Versatile Link products from Avago Technologies.

Firecomms maximizes design freedom and production flexibility for customers through our Ireland based R&D Center of Excellence, with assembly at our world class production facility in Tongxiang, China. By maximizing the internal sources of ICs and photonics, coupled with internal production facilities, Firecomms maintains a highly competitive yet flexible supply chain to meet our customers' demanding needs.

With our long history in the fiber optic industry, Firecomms continues to meet and exceed the needs of our customers through our worldwide team of field application engineers who consistently provide local service and novel, innovative and price-conscious fiber optic solutions.

For details on Firecomms and our products, please visit our website at **www.firecomms.com** or contact us through any of our worldwide locations.