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Advanced Fiber Resources

CATALOG

COMPONENTS FOR OPTICAL NETWORKS

2026

COMPANY INTRODUCTION

Founded in 2000 and publicly listed in China in 2017, Advanced Fiber Resources (AFR) has expanded to over 3,000 employees, including 500 engineers and technicians. AFR designs and manufactures fiber optic components and lithium niobate modulators across 136,000 m² of global facilities, including AFR Zhuhai, AFR Jinding, AFR Wuhan, and B&A in China, AFR Milan in Italy, and AFR Thailand. Our products are widely applied in telecommunications, data centers, fiber lasers, fiber sensing, autonomous driving, and biomedical equipment, and have been delivered to more than 600 customers in over 40 countries and regions worldwide.

26
Years of History

2017
IPO in China

4,000
Employees

136,000
m² Facility

321
Patents

600
Customers

QUALITY

At AFR, quality is our top priority and an integral part of everything we do. The product quality management covers the entire lifecycle, from product development, to supply chain management, manufacturing, and after-sales. AFR's quality management system fulfills the requirements of ISO 9001:2015, ISO 14001:2015 and IATF 16949, and all products are qualified with Telcordia GR-468 and GR-1221-CORE reliability test.

The company currently has seven dedicated laboratories and is equipped with many high precision instruments, to ensure excellent reliability of our products. We have built an optical precision processing center and a machining center, manufacturing crystals, mirrors, PBS, other flat surface optics and mechanical components in-house, the key material production capability makes us more competitive.

We strive to continuously improve our products with proactive, data driven, quality first systems and processes.


Certificate CN09/31215

SGS

Advanced Fiber Resources (Zhuhai), Ltd.

ISO 9001:2015

For the following activities

Design and manufacture of optical components and modules based on micro optics and fiber optics

Certificate CN20/3713/E

SGS

Advanced Fiber Resources (Zhuhai), Ltd.

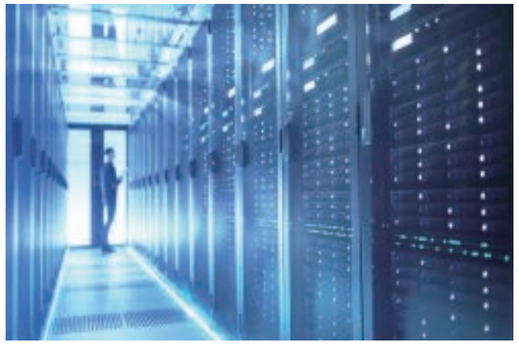
ISO 14001:2015

For the following activities

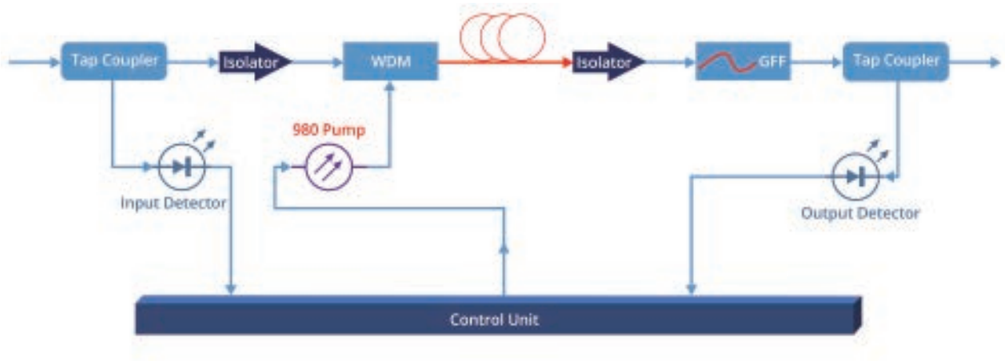
Design and manufacture of optical components and modules based on micro optics and fiber optics

IAF

CONTENT



Typical Structure of EDFA



Components for EDFA

Discrete Components for EDFA

- Tap Coupler
- Isolator
- WDM
- Photodiode

Hybrid Components for EDFA

- Tap + PD
- Isolator + GFF
- Tap + Isolator + WDM

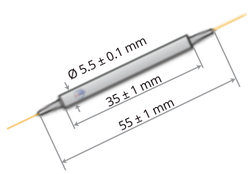
Available Package

Standard Package

Can be used for single function or hybrid function

Isolator, WDM + Isolator, Tap + Isolator, GFF + Isolator

WDM + Tap + Isolator

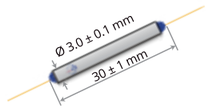


Mini-Package

Can be used for single function or hybrid function

Isolator, WDM + Isolator, Tap + Isolator, GFF + Isolator

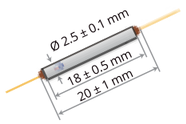
WDM + Tap + Isolator



Ultra Mini-Package

Can be used for single function or limited choice of hybrid function

Isolator, WDM + Isolator, Tap + Isolator



High-Reliability Components

Products

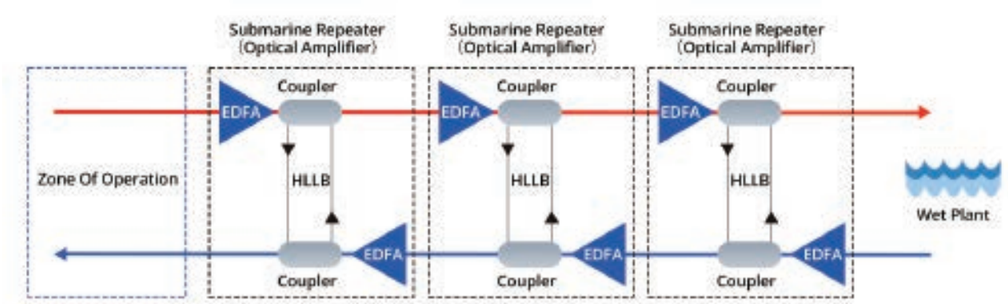
- **Filter WDM**
- **Isolator**
- **GFF**
- **GFF + Isolator**
- **PBC/S**
- **Fiber Feedthrough**

Standards

- **GR-1221-CORE**
- **GR-1209-CORE**

Performance of Hi-Rel Components

- Started Volume Shipping in 2013
- Shipped 50,000 + pcs to the US and Europe
- FIT < 0.1
- **25 Years Lifetime Warranty**



Submarine Network System Structure Diagram

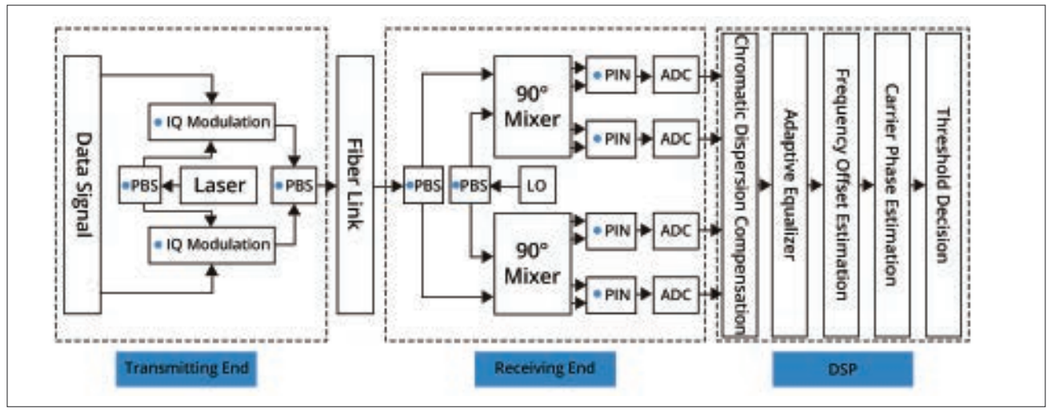
Polarization Maintaining Components

Products

- **PM Tap Coupler (PMTC)**
- **PM Isolator**
- **Polarization Beam Combiner/Splitter (PBC/PBS)**
- **PM Circulator**
- **PM WDM (Fused/Filter)**
- **PM In-Line Polarizer**
- **Faraday Mirror**

Applications

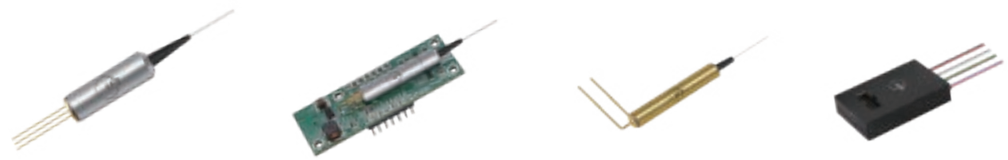
- Optical Amplifiers
- ACO/DCO
- ICR/ICT
- Coherent Module and Transponder



Coherent Optical Communication System Structure Diagram

Over 20 Years of Experience with PM Fiber Optic Components
Comprehensive Product Line Covering a Wide Range of Applications

Electric Driven Components



Products

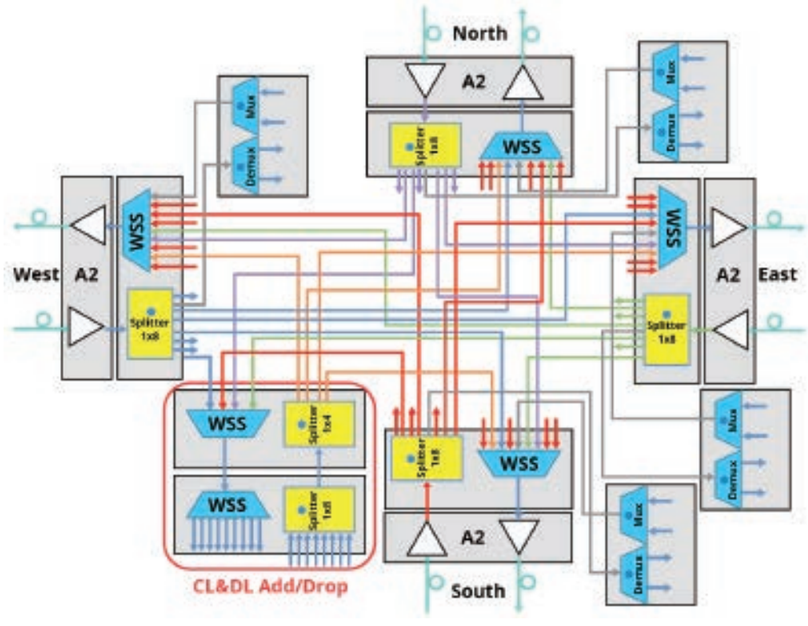
- **Low WDL MEMS VOA and Array**
- **PM MEMS Switch 1x2/2x2/1xN**
- **Unidirectional Tap PD and Array**
- **Fiber Pigtailed PD and Array**
- **TAP + Isolator + PD Hybrid**

Features

- Low WDL: < 0.5 dB (VOA)
- Low IL: < 0.7 dB (VOA/Switch)
- Fast Response: < 2 ms (VOA), < 10 ms (Switch)
- Low Dark Current: < 2 nA (PD)
- High Directivity: > 35 dB (PD)
- Compact Size

Applications

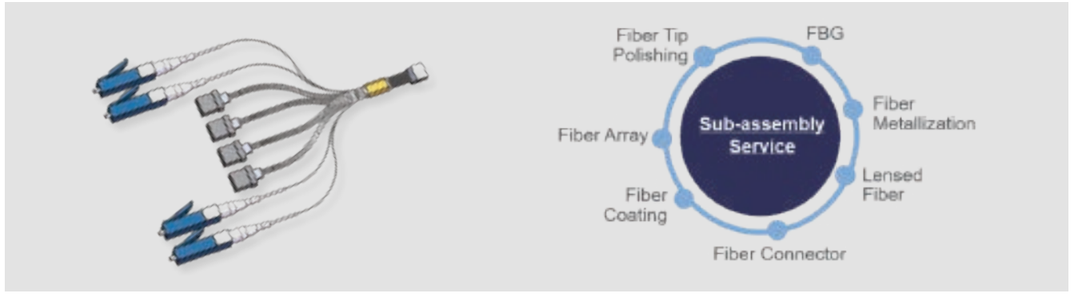
- Fiber Amplifiers
- WSS
- V-MUX
- MCS
- Optical Channel Monitoring



Optical Cross Connection

FIBER ASSEMBLY

AFR can provide One-Stop Fiber Assembly Service according to the requirements of customers. Our products and services include Lensed Fiber, Fiber Metallization, Fiber Feedthrough, Fiber Coating, Fiber End Face Polishing, Fiber Array, Fiber Connector, Fiber Bragg Grating, etc.



Applications

• 400G, 800G System, WSS

Lensed Fiber

Features

• Wedge or Conical Lens Available
• Customized Lens
• High Coupling Efficiency
• High Reliability in Hermetic Packaging

Applications

• Pump Lasers, SLEDs, etc.
• DFB Laser
• Optical Waveguide Coupling

Fiber Metallization

Products

• Metalized Single Fiber
• Metalized Ribbon Fiber

Features

• Excellent Solderability
• High Hermetic Sealing Guarantee
• High Reliability

Fiber Feedthrough

Features

• Glass Solder and Metal Solder are Both Available
• Single Fiber and Ribbon Fiber are Both Available
• Passed 10000 m Hydraulic Press Test
• Hermetic Sealing Guarantee

ACTIVE COMPONENTS PACKAGING

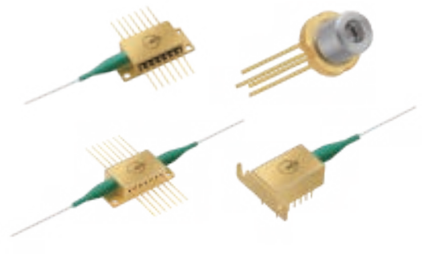
Laser Packaging

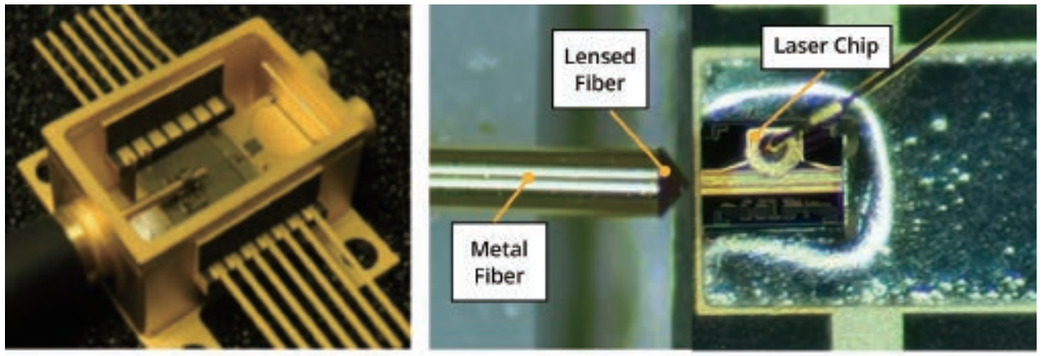
Products

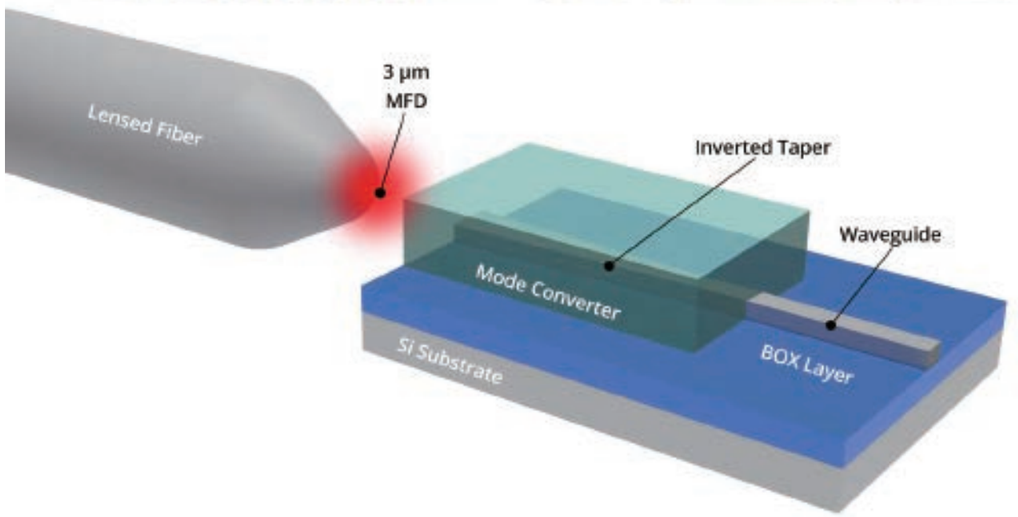
• H8/14 Pin Butterfly Packaging
• TO-CAN Packaging

Features

• DFB, SLED, and Pump LD Packaging
• OEM Business Available
• Hermetic Sealing
• High Reliability







800G Multimode SR4/SR8

Leveraging robust manufacturing processes and high-volume product capability, Vlink delivers precision short reach jumpers for SR4/SR8 modules, offering advanced MT polishing and laser cleaving process, with a fiber length tolerance of ± 0.1 mm.

Features

• 24-24 Channel or 24-16 Channel
• High Accuracy of Fiber Length Control

Applications

• 400G/800G Short Reach Solution (SR4/SR8)

90 deg. Bending FAU

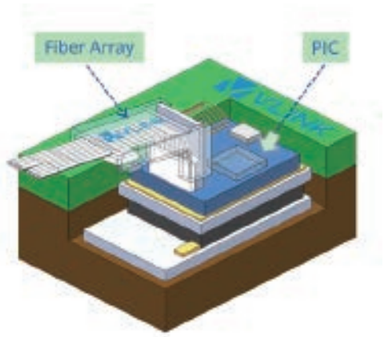
Vlink's 90 deg. Bending FAU feature a high-precision V-Groove substrate with Vlink's specialized bend, assembly and polish processes, resulting in low insertion loss, precise fiber core pitch, and excellent polished surface quality. The compact products, under 3.5 mm in height, are ideal for high-speed silicon photonics transceiver interconnections.

Features

• High Coupling Efficiency Connectivity in Silicon Photonics Assembly
• Patented Vlink Technology for Low Stress and High Reliability
• 12-Channel, 24-Channel or on Request
• Fiber Height 3.5 mm or less
• Low Bending Loss < 0.1 dB
• Low Coupling Loss < 0.35 dB
• High PER > 25 dB

Applications

• Grating Coupling in Silicon Photonics Connection



400G/800G DR4/DR8 Assembly

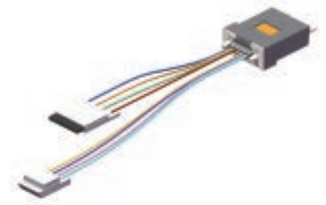
The 400G/800G DR4/DR8 jumper consists of MT and FAU integrated with isolators or lenses tested by automatic machines. Fiber length is accurately controlled by special fixtures. The products comply with GR-468-CORE requirements.

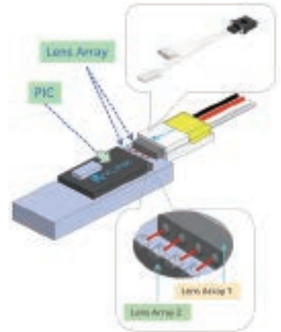
Features

• Fiber Array with Lens Array Packaging Fit to Small MFD PIC Application
• High Coupling Efficiency for Fiber Array to PIC Packaging
• High Power Handling Property

Applications

• 400G/800G Parallel Single Mode Solution





CWDM/LAN-WDM Assembly

The Vlink's Thin Film Filter CWDM and LAN WDM Block has compact size, high effective aperture, accurate pointing angle, and is suited for QSFP28 transceiver modules. Filters attachment is accomplished by automatic machine.

Features

• High Volume Product Capability, Low Cost
• Automatic Manufacturing Process
• Typical Output Light Parallelism < 0.1°

Applications

• CWDM4/LAN WDM4 Module

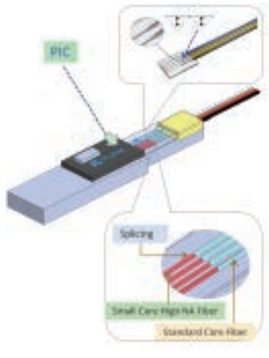
COMPONENTS FOR DATA CENTER

PM Fiber Array and Fiber Pigtail

Vlink's PM Fiber Pigtail and Fiber Array are ideal for coherent telecom applications and fiber sensor systems. Leveraging our professional design and manufacturing capability, Vlink delivers high-quality, cost-effective PM pigtails that comply with GR-1221/1209-CORE and RoHS requirements.

Features

- High PER up to 30 dB
- Low Stress on PM Fiber with Vlink Packing Process
- Low PER Degradation After Laser Welding/Soldering
- SSC Function by Fusing Different Core Spot Size Fibers for Small MFD PIC Application
- Different Cladding/Core/Brand Fibers are Optional
- Low Loss and Reflow High Tempreture Handling

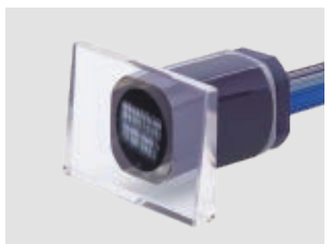


Applications

- ICR/iTLA Module
- CPO

2D High Density Fiber Array

Vlink's 2D High Density Fiber Array are widely used in OCS systems and ROADM WSS modules. High-precision pitch control is achieved by V-Groove manufacturing and assembly processes. Pitch in the X or Y direction can be customized and asymmetrical. With AR coating and feedthrough assembly capabilities, Vlink provides a one-stop solution for customers.

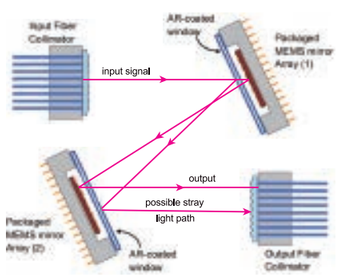


Features

- M×N Multi-Channel Fiber Array up to 2500 Fibers
- Fiber Core Pitch 250 μm, 127 μm, 84 μm or Special
- Fiber Core Pitch Error ≤ 1.0 μm

Applications

- Application for OCS, WSS



Brochure version: Feb 2026

www.fiber-resources.com