



POWERING THE FUTURE OF AI & HIGH-SPEED NETWORKING

UNMATCHED PERFORMANCE, ENGINEERING EXPERTISE,
AND SCALABILITY FOR NEXT-GENERATION NETWORKS

**Approved
Networks**
A brand of **legrand**

WHY APPROVED NETWORKS?

In a market driven by speed and scale, Approved Networks, a brand of Legrand, offers more: partnership, flexibility, and solutions-focused expertise. We don't just provide fiber optics—we provide confidence that your network will perform at peak efficiency in any environment.

Our optical transceivers provide high-throughput, low-latency connectivity essential for AI-driven applications, from live healthcare diagnostics to financial analytics, hybrid education and 5G telecom networks.

Developing fiber optics engineered for AI takes deep expertise and sustained investment. Approved Networks, backed by Legrand, commits millions each year to R&D, ensuring our customers benefit from the latest innovations in high-speed technology. With this foundation, we deliver optical networking solutions that are not only cutting-edge but also reliable, scalable, and unmatched in the industry.

As AI adoption accelerates, our solutions are engineered to keep pace, empowering networks to grow without limits.

THE APPROVED NETWORKS DIFFERENCE

- **Broad Compatibility**
Seamless integration across majority of leading OEM platforms
- **Tailored Solutions**
Custom configurations built for your unique requirements
- **Programming & Testing Facilities**
Functional and performance testing for full interoperability
- **Engineering Expertise**
Decades of hands-on optical networking knowledge
- **Expert Technical Support**
U.S.-based always-on assistance to minimize downtime
- **Test Sample Program**
Risk-free evaluation in your own environment
- **Onsite & Virtual Consultations**
Direct expert support from design through deployment
- **Limited Lifetime Warranty**
Long-term reliability backed by industry-leading support

WITH APPROVED NETWORKS, YOU GET MORE THAN FIBER OPTICS — YOU GAIN A TRUSTED PARTNER TO POWER YOUR NETWORK FOR TODAY AND TOMORROW.

AI & HIGH-DENSITY NETWORKING

AI workloads are projected to grow at a compound annual growth rate (CAGR) of 31.6% through 2030 (“AI Data Center Global Market Forecast Report 2025-2030”, 2025). This increase is creating new challenges around bandwidth, power consumption, and performance—driving up infrastructure and operational costs.

Approved Networks’ optical transceivers deliver the speed, reliability, and efficiency required for advanced AI environments. Our fiber optic solutions are engineered to provide a foundation for next-generation networking, including:

- **Ultra-Low Latency**
Ensure real-time responsiveness for AI training, inference, and analytics.
- **High Throughput**
Support massive data transfers with bandwidth up to 800 Gbps to accelerate insights.
- **Scalability**
Expand capacity seamlessly as workloads increase, from enterprise AI clusters to hyperscale data centers.

KEY BENEFITS AT A GLANCE



SPEED

Up to 800G data rates



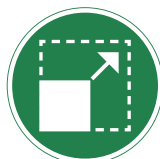
FLEXIBILITY

Over multimode, single-mode fiber or high-speed cables



DISTANCE

From meters to kilometers



SCALABILITY

Supports AI, 5G, cloud, & enterprise environments



FIBER OPTICS OPTIMIZED FOR AI ARE BUILT TO POWER HIGH-DENSITY NETWORKING AND ENABLE SEAMLESS REAL-TIME PROCESSING.

DRIVING PERFORMANCE ACROSS INDUSTRIES

Across all sectors, the future is clear: AI will drive operational efficiency, personalized experiences, and intelligent automation. Below is an overview of key challenges faced by specific industries, with an explanation of how Approved Networks' fiber optics drive efficiency, scalability, and cost savings.

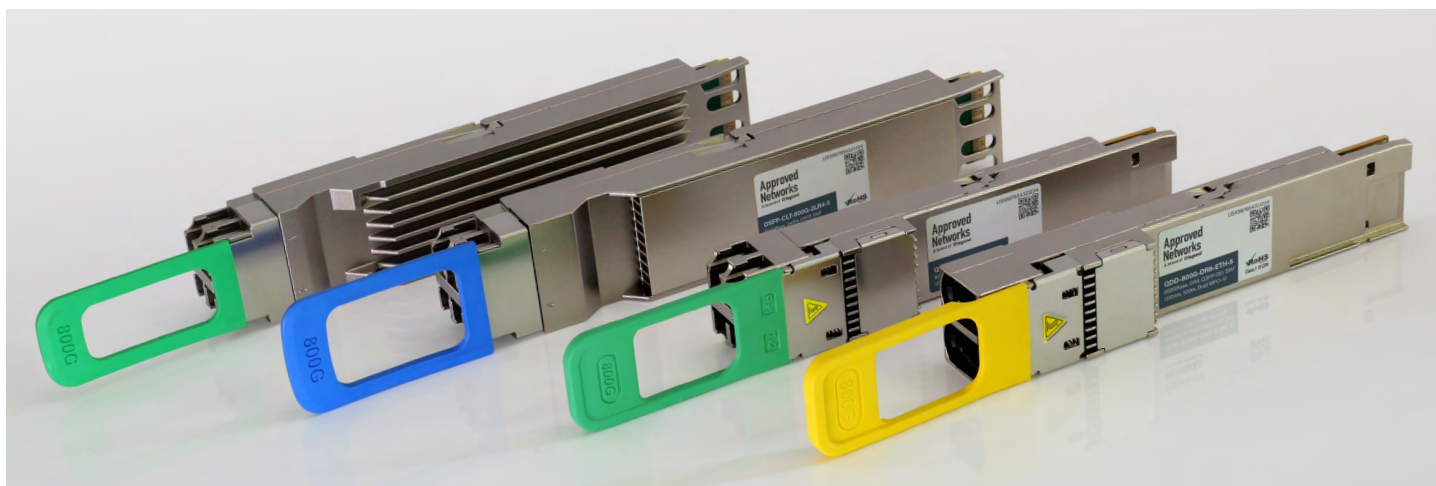
AI and Cloud Providers	
Challenges	Solutions
Insufficient bandwidth, latency sensitivity, high power consumption, scaling	Maximize fiber capacity, reduce latency, and increase rack density with energy-efficient form factors optimized for AI workloads
Data Centers	
Challenges	Solutions
Insufficient fiber capacity, deploying outside plant fiber cables, distance to support, complexity of optical transport networks	Simplify long-distance connectivity, minimize network management, and optimize hardware resources while maintaining signal integrity
Broadband and Telco Service Providers	
Challenges	Solutions
Increased backhaul, network congestion, long lead times, budget constraints	Expand fiber capacity, streamline upgrades across multi-vendor networks, and lower both hardware and installation expenses by using interoperable modules
Large Enterprise	
Challenges	Solutions
Inadequate bandwidth, complex integration, downtime during upgrades or scaling	Maintain backward compatibility with existing infrastructure, and reduce cabling complexity with high-density solutions that cut installation time
Edge Infrastructure	
Challenges	Solutions
Limited space & power, latency sensitivity, managing remote or unstaffed locations	Deploy compact, low-power optics, providing ultra-low latency and plug-and-play installation for simplified remote management

DESIGNED FOR PERFORMANCE

Approved Networks' transceivers are engineered to deliver more than just speed—they're built with precision and quality. Every unit is coded in U.S. facilities for seamless OEM compatibility, sourced from Tier 1 manufacturers, and tested beyond industry standards to ensure reliable performance in the most demanding environments. This translates into technical strengths that ensure:

- **Optimized Responsiveness**
Validated through rigorous testing to deliver throughout for AI workloads and analytics.
- **Electromagnetic Interference (EMI) Compliance**
Designed and certified for clean operation in high-density data center environments.
- **Power Efficiency**
Optimized for lower cost per bit and energy use, meeting sustainability and OPEX reduction goals.
- **Environmental Resilience**
Qualified across temperature and voltage ranges to perform reliably under real-world conditions.

Approved Networks combines technical precision with lifetime-backed reliability, ensuring your infrastructure is supported every step of the way.



WITH EXPERT SUPPORT AVAILABLE FROM DESIGN THROUGH DEPLOYMENT, APPROVED NETWORKS' TRANSCEIVERS CAN BE CUSTOMIZED TO MEET EXACT NETWORK REQUIREMENTS. OUR TEAM OFFERS COMPREHENSIVE CONSULTATION SERVICES TO ENSURE FIBER OPTICS AND CABLING INTEGRATE SEAMLESSLY INTO AI-DRIVEN ENVIRONMENTS.

CHOOSING THE RIGHT FIBER OPTIC SOLUTIONS FOR AI DEPLOYMENT

Supporting AI workloads requires more than just raw bandwidth; it takes a purpose-built, future-ready infrastructure. Networks must deliver exceptional speeds, low latency, and flexibility to scale. The right foundation begins with choosing solutions that fit with your specific applications.

Selecting components based on distance, capacity, and deployment needs ensures a network foundation equipped to meet today's performance demands while staying ready for advanced AI-driven workloads.

Approved Networks' broad portfolio of optical networking solutions provides the flexibility to scale efficiently, from dense clusters to extended data center connectivity—delivering consistent, dependable performance across any deployment.

800G Transceivers



Deliver ultra-high bandwidth required for hyperscale data centers and AI clusters. 800G transceivers are optimized for power efficiency and high port density, they enable rapid data movement for AI/ML training, real-time analytics, and long-haul data center interconnects.

- **Deliver data rates up to aggregate 800Gb/s**
- **Support distances from 50m multimode fiber (MMF) to 10km Single-mode fiber (SMF)**
- **Support InfiniBand and Ethernet networks**
- **Incorporate hot-pluggable interfaces for quick installation**
- **Form Factors: OSFP, QSFP-DD**

400G Transceivers



Provide a cost-effective, energy-efficient, and versatile solution with optimized performance. 400G transceivers are widely adopted across cloud, telecom, and enterprise networks—ideal for AI deployments that demand flexibility, backward compatibility, and seamless integration with existing infrastructure.

- **Deliver data rates up to aggregate 425Gb/s**
- **Support InfiniBand and Ethernet networks**
- **Support distances from 70m MMF to 10 km SMF**
- **Incorporate hot-pluggable interfaces for quick installation**
- **Form Factors: OSFP112, QSFP112, OSFP, QSFP-DD**

Active Copper Cables (ACCs)



Offer low latency, high bandwidth, and low power consumption for mid-range distances. ACCs use embedded electronics to boost signals and improve data integrity for high-speed networks.

- **Built-in equalizer linear driver chip**
- **Deliver data rates up to aggregate 800Gb/s**
- **Support distances up to 5m**
- **Support InfiniBand and Ethernet networks**
- **Breakout options available (one transceiver cable end can be split into two or four transceivers)**
- **Form Factor: OSFP**

Active Optical Cables (AOCs)



Provide connectivity across medium-reach distances while maintaining a simple plug-and-play design. AOCs combine the low weight and flexibility of fiber with integrated transceivers, making them ideal for end-of-row or middle-of-row connections where copper is impractical.

- **Deliver data rates up to aggregate 800Gb/s**
- **Support distances up to 50m MMF**
- **Support InfiniBand and Ethernet networks**
- **Breakout options available (one transceiver cable end can be split into two or four transceivers)**
- **Form Factor: OSFP**

Direct Attach Copper (DAC) Cables



Offer a low-cost, ultra-low-latency, and low-power option for short-reach connections, such as linking servers to top-of-rack switches. With no need for additional optics or power, DACs are the simplest and most energy-efficient choice for in-rack or adjacent-rack connectivity.

- **Utilize passive copper twinax cabling**
- **Deliver data rates up to aggregate 800Gb/s**
- **Support distances up to 3m**
- **Support InfiniBand and Ethernet networks**
- **Breakout options available (one transceiver cable end can be split into two or four transceivers)**
- **Form Factor: OSFP**

Let's Build Your Network, Together.

Your network is the backbone of innovation. Whether you're scaling AI clusters, expanding hyperscale data centers, or preparing for tomorrow's workloads, Approved Networks delivers the performance, flexibility, and support you need to succeed.

To learn more visit

approvednetworks.com/ai

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