

MWC 2026: China's Leading Optical Communication Companies Lead the World with Hollow-Core Fiber and AI Infrastructure

SHANGHAI, SHANGHAI, CHINA, March 9, 2026 /EINPresswire.com/ -- From disruptive breakthroughs in hollow-core fiber to systematic deployments of AI computing infrastructure, four major companies—[Hengtong](#), [YOFC](#), [FiberHome](#), and ZTT—collectively showcased in Barcelona, demonstrating the overall innovative strength of China's optical communication industry to the world. From March 2 to 5, the 2026 Mobile World Congress (MWC) was held grandly in Barcelona, Spain. At this top-tier global communication industry event, four leading Chinese optical communication companies—Hengtong, YOFC, FiberHome, and ZTT—gathered together to showcase the latest innovations and industrialization capabilities of Chinese enterprises in the optical communication field, focusing on cutting-edge areas such as hollow-core fiber, AI computing infrastructure, marine communications, and FTTx all-optical

networks. From core materials to system solutions, from land to sea, from transmission media to intelligent operations, the Chinese optical communication industry presented a collective front, sending a clear signal to the global industry: in an era of deep integration between AI and communications, China's strength is becoming a key engine reshaping global digital infrastructure.

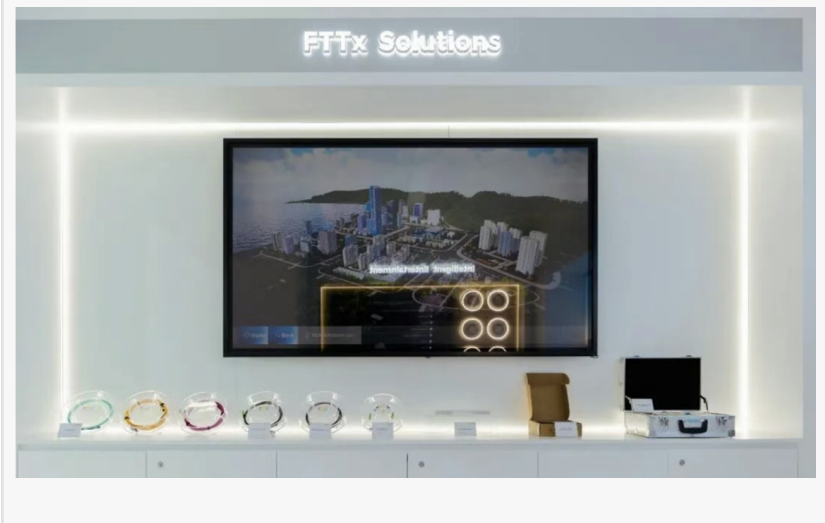


01 Breakthroughs in Hollow-Core Fiber Technology, Ushering in a New Era of "Near-Light-Speed" Transmission

Against the backdrop of extreme demands from AI large models for data transmission latency and bandwidth, hollow-core fiber, with its disruptive technology using air as the transmission medium, has become the core path to breaking through the physical limits of traditional silica fiber. At this year's MWC, the collective breakthroughs achieved by Chinese optical communication companies in the field of hollow-core fiber became a focal point of attention.

Hengtong Optic-Electric also achieved significant breakthroughs in the field of hollow-core fiber: its hollow-core anti-resonant fiber reduces transmission latency by 33% and has a bandwidth potential exceeding 200THz. Hengtong has taken the lead in China to achieve the commercial deployment of the first hollow-core fiber financial dedicated line and has successfully won bids for domestic DCI commercial projects, while also initiating trials in multiple overseas locations. Min Yue, Director of Hengtong's Optical Network Business Unit, stated at the exhibition site that hollow-core fiber can increase transmission speed by 45%, and after applying this cutting-edge technology to access networks, home and industrial users will experience microsecond-level ultra-low latency.

YOFC officially launched its hollow-core fiber brand HollowBand® during the conference and announced that its anti-resonant hollow-core fiber has achieved the world's lowest attenuation of 0.04dB/km, reducing latency by 31% and increasing transmission speed by



47% compared to traditional solid-core fiber. Even more remarkably, YOFC has achieved a single hollow-core fiber preform drawing length of 91.2 kilometers and has deployed over 10 commercial and pilot projects globally, including the Guangdong-Hong Kong 100km project—the world's longest hollow-core fiber commercial project. YOFC simultaneously launched the INFINITE-2030 Plan, aiming to promote the deployment of over 50 commercial projects globally and the formulation of international standards.

FiberHome Telecommunications made a major announcement at the conference, unveiling its new generation improved double-nested structure ultra-low-loss hollow-core fiber, with a minimum attenuation value of 0.06dB/km @1550nm and a transmission latency reduction of 31% compared to traditional solid-core fiber. FiberHome has overcome industry challenges such as non-compliant PMD indicators and loss fluctuations. The total loss over 10km is only 1.2dB (including 0.6dB connector loss), and the additional attenuation after loosely winding 100 turns at a 50mm radius is ≤ 0.1 dB, demonstrating superior environmental adaptability and bending resistance. Currently, FiberHome possesses full-process industrialization capabilities from raw materials and equipment platforms to batch manufacturing processes, and has obtained authoritative certification from China Telecommunication Technology Labs (CTTL).

ZTT showcased its systematic layout in the field of specialty optical fibers, focusing on its bend-insensitive four-core fiber, which supports ultra-large capacity transmission of 400G, 800G, and even T-level, providing higher integration density and better space utilization for high-density optical cable systems. At the same time, ZTT continues to advance the layout of next-generation specialty optical fiber technologies such as hollow-core fiber, targeting future application scenarios in ultra-high-speed interconnection and cutting-edge computing networks.

02 AI Computing Infrastructure, Building an Efficient and Green Intelligent Computing Foundation

Facing the challenges of high density and high energy consumption in AI computing, Chinese optical communication companies have launched full-stack solutions covering optical interconnection, power supply, and cooling, providing a solid foundation for the construction of global intelligent computing centers.

Hengtong Optic-Electric, with the core concept of "Fiber Lane + AI Brain," has created an integrated solution deeply integrating three major scenarios: optical interconnection for intelligent computing center clusters, campus optical interconnection, and inter-cabinet optical interconnection. The solution deeply integrates cutting-edge technologies such as hollow-core fiber and multi-core fiber, incorporating core products like high-quality multimode fiber, high-fiber-count optical cables, high-speed optical modules, AOCs, and connectors, meeting the stringent requirements of top-tier AI computing infrastructure for extreme performance and high stability. Concurrently, Hengtong's TSN-PON industrial communication solution deeply integrates Time-Sensitive Networking and Passive Optical Networks, improving network transmission efficiency by over 50%, injecting strong momentum into industrial intelligent upgrades.

YOFC, under the theme "AI×Fibre Leading an Intelligent Future," launched its AI intelligent computing center solution, deeply integrating breakthrough technologies such as hollow-core fiber and multi-core fiber, and incorporating high-quality multimode fiber, 800G/1.6T high-speed optical modules, and green cabling systems. This not only provides powerful computing power and efficient, lossless data transport support for intelligent computing scenarios across various industries but also significantly reduces data center energy consumption, promoting the evolution of global digital infrastructure towards efficiency, low carbon, and sustainability.

FiberHome Telecommunications focuses on three core areas: AI data centers, telecom operator networks, and industry digital transformation. Its AI data center optical interconnect component solution covers the full scenario from "chip-card-cabinet-row-building-inter-data center," supporting over 6000 cores per cable and over 3000 cores per U in a single distribution unit, adapting to rates from 100G to 1.6T, and improving deployment efficiency by 70%. In terms of cooling, FiberHome has launched two leading liquid cooling solutions: two-phase cold plate and immersion cooling. The latter's cooling efficiency is approximately 1000 times higher than traditional air cooling, reducing cooling energy consumption by over 50%, and has been successfully deployed in AI data centers in multiple locations such as Shanghai and Changsha.

ZTT presented a full-stack solution from power supply to cooling. Its highly integrated intelligent power modules and liquid cooling solutions effectively improve energy utilization efficiency, helping data centers achieve lower PUE levels and meet the heat dissipation and stability requirements of high-density computing scenarios. Relying on its independent R&D and manufacturing capabilities, ZTT is building an integrated digital infrastructure system covering power, communications, and new energy.

03 Marine Communications and Global Interconnection, Building a Cross-Ocean Data Artery
As AI computing demands transcend national borders, marine communication has become the "aorta" connecting global data resources. The systematic layout of Chinese optical communication companies in the marine network field demonstrates their comprehensive strength in moving from "nearshore" to "deep blue."

Hengtong Optic-Electric's subsidiary, Hengtong Marine, showcased three core products: 32-fiber-pair submarine optical cables, 32-fiber-pair repeaters, and underwater special cable systems, providing end-to-end one-stop services from exploration, design, product provision, construction, to operation and maintenance. Simultaneously, its 96-core umbilical cable and static/dynamic system solutions applied in the offshore oil and gas sector have been successfully deployed in multiple offshore platform and floating platform interconnections, demonstrating its comprehensive technical strength in complex marine engineering environments.

YOFC, with marine optical/electrical cables, multi-core fiber, and G.654.E fiber as its three pillars, has built an "all-optical highway" connecting global data. Its marine communication and power cable solutions can provide customers with integrated cross-ocean communication and energy

transmission services empowered by fiber optics, supporting the high-speed, stable, and low-latency flow of massive data across global AI networks.

FiberHome Telecommunications' full-scenario marine network solution possesses end-to-end capabilities from desktop research to system maintenance. Its transoceanic systems support 10,000km transmission and 26Tbps capacity per fiber, while its repeaterless system reaches 680km. Its MCF (multi-core fiber) technology is industry-leading. FiberHome has participated in the commercial implementation of the world's first seven-core MCF submarine cable project, driving innovation in global marine communication development.

04 FTTx and Green Networks, Enabling 10-Gigabit All-Optical Access

In the access network domain, Chinese optical communication companies demonstrated the evolution from "Fiber to the Home" to "Fiber to Everything," with green concepts running through all aspects.

Hengtong Optic-Electric launched its FTTx full-scenario fiber connection solution, achieving one-stop full-scenario network coverage from trunk access to final drop to the premises. Its modular stainless steel optical cable cross-connect cabinets, high-density optical cable splice closures, and diverse drop cable solutions provide reliable guarantees for efficient FTTx network deployment. Meanwhile, products like Hengtong's green base station antennas also reflect its continuous investment in green energy efficiency.

YOFC introduced its "Fiber + Industry" deep integration solution, along with FTTx full-scenario solutions covering FTTH, FTTD (Fiber to the Desktop), and FTTM (Fiber to the Machine), truly realizing the ultimate digital life and production experience of "one fiber access, smart enjoyment of all things." Through flexible deployment of fiber to the home, desktop, and machine, YOFC supports seamless integration of multiple services including gigabit broadband, 4K/8K video, smart home, remote work, and industrial internet.

FiberHome Telecommunications, using 50G PON and FTTR, has built an all-optical access network covering FTTO, FTTM, and in-vehicle V-PON. Its Vehicular Passive Optical Network (V-PON) technology, developed entirely in-house, creates an end-to-end solution comprising chips + OLT/ONU modules + optical splitters + fiber optics, meeting automotive-grade standards and empowering the accelerated development of intelligent connected vehicles. Additionally, FiberHome's green indoor distribution solutions, such as environmentally friendly high-flame-retardant leaky cables suitable for submarine tunnels, achieve synergy between network performance and sustainability.

ZTT showcased its green base station antennas, which, through structural innovation and feed network optimization, increase radiation efficiency to over 80% and gain by 1-1.5dBi. Its end-to-end green indoor distribution solutions include environmentally friendly high-flame-retardant leaky cables for submarine tunnels and comprehensive solutions combining active DAS and passive Roomtop leaky cables for high-density scenarios like transportation hubs, achieving coordination between network performance and sustainability.

Conclusion: Looking to the Future from Barcelona

The four-day MWC 2026 has concluded, but the innovative strength demonstrated by the Chinese optical communication industry at this global technology event continues to ripple through the industry. From breakthroughs in hollow-core fiber to the construction of AI computing infrastructure, from the extension of marine networks to the popularization of green access, the four companies—Hengtong, YOFC, FiberHome, and ZTT—with their distinctive innovative achievements, have jointly painted a magnificent picture of China's optical communication industry leading the world. As the AI wave sweeps the globe, Chinese optical communication enterprises, with an open and win-win attitude, are joining hands with global operators, cloud service providers, and industry chain partners to jointly expand technological boundaries, paving the light-speed path to the future for the digital world.

At MWC 2026, the world witnessed the collective strength of the Chinese optical communication industry; Looking ahead, China's strength will continue to inject a steady stream of innovative vitality into the evolution of global digital infrastructure.

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