

Procurement of Special Optical Cable G 654



AI Overview

G.654.E optical fiber cables are available for large-scale procurement, offering high-capacity, long-haul transmission with future-proof network capabilities. Procurement Opportunities China Mobile has initiated a centralized procurement project for G.654.E optical fiber and cable products for 2025–2027, with an estimated scale of 22,900 fiber kilometers (3.1386 million core kilometers). The project uses a share bidding system, allowing 2–3 winning suppliers, with maximum bid limits set at 630,563,700 yuan excluding tax. Bids exceeding this limit are rejected, ensuring competitive pricing and compliance with procurement standards (China Mobile, 2025). Similarly, China Telecom has issued tenders for hybrid optical cables incorporating G.654.E fibers, including 12-core G.654.E tubes combined with G.652.D and hollow-core fibers. The tender specifies maximum bid prices per kilometer and a single winning bidder, reflecting structured procurement practices for specialized fiber deployments (China Telecom, 2025). Technical Advantages of G.654.E Fiber G.654.E fiber is designed for ultra-high-capacity, long-distance transmission, supporting data rates of 800 Gb/s and beyond over hundreds of kilometers without frequent signal regeneration. Compared to conventional G.652.D fiber, G.654.E reduces the need for repeaters and optical amplifiers, lowering infrastructure costs, energy consumption, and equipment footprint (ACOME & Sumitomo Electric, 2025). The fiber is also future-proof, allowing network operators to gradually migrate to higher-capacity architectures while maintaining compatibility with existing G.652.D infrastructure. Hybrid cable solutions combining G.654.E and G.652.D fibers enable flexible deployment, smoother upgrades, and long-term sustainability for data centers and long-haul networks (ACOME & Sumitomo Electric, 2025). Key Considerations for Pro...

Article Content

G.654.E Fibre Cable

As a high-tech European manufacturer, we bring over 25 years of specialized experience in fiber optic cables. This extensive expertise has been critical in supporting the large-scale fiber roll-out for major

Global Fiber Optic Cable Market Analysis | OPELINK

CRU data indicates that combined demand for multi-mode fiber and G.654.E cable reached approximately 8 million core-kilometers in 2025, and this figure is projected to grow at a

China Telecom Issues Another Tender for Hollow-Core Fiber

This project involves the procurement of 146-core hybrid optical cable cores with a loose tube layered structure, consisting of 1 tube of 2-core hollow-core fiber, 6 tubes of 12-core G.654.E

G.654.E Fibre Cable

Special attention is required when splicing G.654.E optical fibre with other fibre types, due to its distinct characteristics - particularly its large mode field diameter (MFD).

ITU-T Rec. G.654 (12/2006) Characteristics of a cut-off shifted single ...

This Recommendation describes the geometrical, mechanical and transmission attributes of a single mode optical fibre and cable which has the zero-dispersion wavelength around 1300 nm wavelength

Sumitomo Electric Opens a Special Web Page for ITU-T G.654.E ...

22 November 2021 Sumitomo Electric Opens a Special Web Page for ITU-T G.654.E Terrestrial Ultra-low Loss Optical Fibers and Cables, "PureAdvance™" Series

ITU-T G.654.E Fiber, PureAdvance for Terrestrial Long-Haul Networks

0.16 dB/km or less, which are fully compliant with ITU-T G.654.E. In this whitepaper, we review ITU-T G.654.E fibers from various points of view; what G.654.E is, what the application of G.654.E is, why

China Mobile Kicks Off 2025-2027 G.654E Optical Fiber and Cable ...

On June 24, 2025, China Mobile released a centralized procurement announcement on its official website, stating that the funds for the 2025-2027 G.654E optical fiber and cable product centralized

ITU-T G.654.E Fiber, PureAdvance for Terrestrial Long-Haul Networks

Growth of global data traffic demand is driving continuous requirements for higher capacity optical transmission systems. To support these high capacity systems in terrestrial backbone networks, low

G.654 : Characteristics of a cut-off shifted single-mode optical ...

Recently posted - Search Recommendations G.654 : Characteristics of a cut-off shifted single-mode optical fibre and cable

G.654.E Fibre Cable

Given that fibre infrastructure is expected to remain in service for decades, hybrid cables that combine both G.652.D and G.654.E fibres offer a practical and future-proof solution.

Optical cable with ITU-T G.654.E fibre removes barriers to delivering ...

A new whitepaper from fibre cable experts ACOME Group and Sumitomo Electric Industries, Ltd. says that existing optical fibre cables will only be able to meet the long-term transmission capacity needs

ITU-T G.654

scope: This Recommendation describes a single-mode optical fibre and cable, which has the zero-dispersion wavelength around 1 300 nm, which is loss-minimized and cut-off shifted at a

Optical cable with ITU-T G.654.E fibre removes barriers

ACOME Group and Sumitomo Electric Industries, Ltd. have announced a new proposal for long-haul optical network cables that will "break

High-Speed Long-Haul Optical Fiber Solution

As the demand for high-speed and long-haul optical communication continues to grow, the selection of the right fiber optic solution becomes crucial. G.654.E single-mode fiber is specifically

GL FIBER® ITU-T G.654 Low-loss & Bend-insensitive Fiber

GL FIBER® fibre complies with or even exceeds the ITU-T G.654.B/E recommendation and IEC 60793-2-50 B1.2 Optical Fibre Specification. GL FIBER tightens many parameters of fibre products.

Optical cable with ITU-T G.654.E fibre removes barriers

For example, combining G.654.E with G.652.D can maximise flexibility and futureproof the network," said Fumiyoshi Ohkubo, General Manager, Market

High Speed Long-Haul Optical Fiber Solution

G.654.E single-mode fiber is deemed as a promising candidate to optimize the transmission performance for next-generation ultra high-speed long

Centralized Procurement of Mobile Standard Optical Cables

In September 2023, China Mobile launched a centralized procurement of G.654.E fiber optic cable products from 2023 to 2024, with a procurement scale of 1.2279 million core kilometers.

ITU-T Recommendation database

Also, in this version a note has been added for cable cut-off wavelength when ITU-T G.654.E fibre is used at central frequencies for applications specified in Recommendation ITU-T G.698.2.

White paper G.654.E Fibre Cable | Acome

ACOME and Sumitomo Electric have developed a new hybrid solution that allows network operators to deploy a single universal cable that supports both current and future network needs.

Contact Us

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