

Single-mode 100Mbps fiber optic transmission distance



Overview

Single-mode fiber optic cables are more suitable for long-distance, high-speed transmission than multimode fiber optics. For most applications, the maximum distance of a single-mode cable is around 160 kilometers. However, the MFB-TF20 is an extended temperature 100Mbps Fast Ethernet SFP Fiber Transceiver (-40 to 75C). Under 850nm wavelength, 100Mbps optical transceiver modules can transmit up to 2km, 1Gbps can transmit up to 550m, 10Gbps can transmit up to 300m, 40Gbps can transmit up to 400m.



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Under 1550nm wavelength, 100Mbps and 1Gbps optical transceiver modules can transmit up to 160km, and 10Gbps optical transceiver modules can transmit up to 80km.



It uses LC connectors, operates at a 1310nm wavelength, and supports long-distance data transmission up to 100 kilometers, ideal for extending 100Mbps Ethernet links over significant distances.



Planet Technology USA's MFB-TF20 is an Extended Temperature 100Mbps Fast Ethernet SFP Fiber Transceiver (-40 to 75°C) that utilizes a wavelength of (1310nm) FP LD which enables a data ...



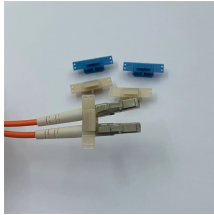
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Multimode fibers if used for long distances lead to dispersion and signal losses. So, the distance for these cables is usually restricted to 2 km. Single mode cables can operate efficiently up to a distance ...



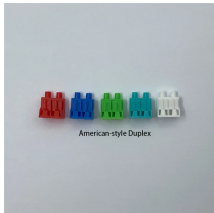
Single mode fiber can transmit light signals over 100+ kilometers without amplification, making it ideal for long distance communication, campus backbones, and metropolitan area networks.



Fiber optic cables can run up to 80 km without a repeater. Learn exact limits by cable type, application, and how to extend your network.



Supporting 10/100 Mbps data rates, this converter operates on single-mode dual fiber technology with a wavelength of 1310/1550nm, making it ideal for long-distance data transmission up to 20 kilometers.



Explore the differences between OS1, OS2 (single-mode) and OM1, OM2, OM3, OM4, OM5 (multimode) fibers. Learn their speeds, distances, and ideal uses for data centers and telecom networks.



Q: What is the maximum transmission distance of single mode fiber? A: Single mode fiber can typically transmit up to 160 km, and with dispersion compensation, it can exceed 200 km.

Contact Us

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