

Signature Core™ Fiber Optic Cabling System

The Next Generation of Multimode Fiber



Panduit's innovation in multimode fiber technology continues with our Signature Core™ Fiber Optic Cabling System. This product family offers end users the ability to extend the physical reach of LANs and SANs, minimizing the need to use costly singlemode equipment. Enterprises today are developing creative business models to deliver new products and services to their customers. State-of-the-art business models require state-of-the-art networking and data center infrastructures that push the limits of what can be designed and deployed.

With reduced capital expense budgets and pressure to lower operating costs, data center professionals are challenged to ensure that infrastructure investments last longer than previous generations. At the same time they must accommodate the expectations of internal users who are demanding increased levels of performance and support.

Panduit's Signature Core™ Fiber Optic Cabling System can help data center professionals solve these challenges, which include throughput, latency, and availability.

How can Panduit's Signature Core™ Products and Solutions Help with Throughput, Latency, and Availability?

Throughput

Throughput is the actual amount of data that can be moved from one location to another. Many factors in data center architecture, including the packet error rate of a LAN or SAN can impact throughput. For example, if a LAN loses half of the packets that are sent out, the throughput would be reduced by half. A network with a bandwidth of 10 Gb/s would only be running with a throughput of 5Gb/s. Alternatively, throughput can be improved by increasing the size of the packets. However this would require a more error-free network. Larger packets are more efficient because the ratio of payload, which is the actual data that is being sent, to overhead is higher. If one is running on a relatively unreliable network, even more time is wasted retransmitting the larger packets versus smaller ones.

Panduit's Signature Core™ Fiber Optic Cabling System's high performance, low bit error rate fiber products improve the network throughput. Fewer corrupted packets are sent, so fewer packets are wasted and you can use larger packet sizes to improve the efficiency of the network and ultimately, the throughput.

Latency

One way to reduce latency is to reduce the packet error rate – the number of packets that become damaged. The receiver at the far end discards damaged packets and asks for them to be retransmitted, or resent. For example, on a trading floor, a sell order cannot be placed until the exchange receives all of the packets that make up the order. If one of the packets is bad and needs to be retransmitted, latency is extended and delays the placing of the sell order, which can be a very costly delay.

The Signature Core™ Fiber Optic Cabling System lowers the network's bit error rate versus other multimode fiber. A lower bit error rate means a lower packet error rate. One bad bit can damage the packet enough to cause a retransmission, which adds to latency.

Availability

Deploying a high-reliability network can increase the availability of a data center for both the LAN and the SAN. The superior performance and high quality connectivity of the Signature Core™ Fiber Optic Cabling Systems, especially the MPO connectors, can improve a data center's availability. Poor quality in connections can cause a failure over time, resulting in network outages and reducing a data center's availability.

Extend Your Reach

Panduit's Signature Core™ Fiber Optic Cabling System allows data centers to take advantage of superior performance by using it in applications that may have required singlemode fiber, thereby saving money, possibly several thousand dollars per link. One can now implement the state-of-the-art data center architectures that are required to support the latest business models your company would like to deploy.

The outstanding performance of the Signature Core™ Fiber Optic Cabling System increases throughput, lowers latency, and improves availability reducing the packet error rate of LANs and SANs.

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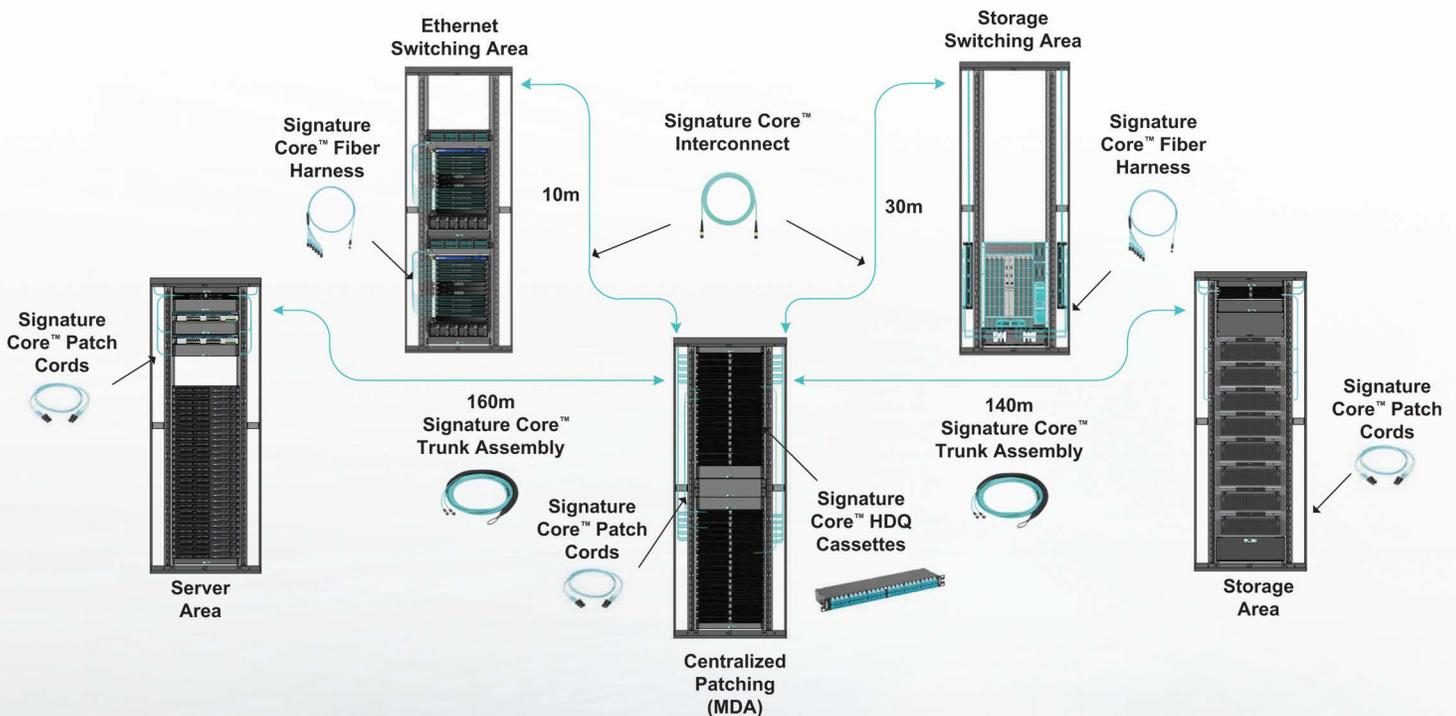
The Signature Core™ Multimode Fiber that is deployed today can support deployment of 40G Ethernet and 16G Fiber Channel.

The Signature Core™ Fiber Optic Cabling System is a complete line of optical system components. This multimode fiber is available in trunks, harness breakout cables, MPO interconnects, patch cords and various types of cassettes.

Panduit's Signature Core™ Fiber Optic Cabling System is fully standards compliant with OM4 and there are no interoperability issues with mixing Signature Core™, OM3 and OM4 systems.

In addition, Panduit's premium reference cables exceeds the standard for regular patch cords, providing the user with much better optical specifications for testing a fiber link. These quality parts create a "minimal" loss segment between the test set and the link being tested.

Signature Core™ Permanent Links tested with Panduit Opti-Core® Reference Grade Cable Assemblies



The performance and reliability of networks within the data center are vital to the operation of today's enterprise. The Panduit Signature Core™ Fiber Optic Cabling System provides data center professionals with the highest performance fiber available to meet the most demanding application and data center architectures. The Signature Core™ Fiber Optic Cabling System is part of Panduit's Unified Physical Infrastructure™ (UPI)-based solutions that drive operational and financial advantages by allowing organizations to improve reliability, reduce costs, heighten agility, and support sustainability initiatives.

Learn more today at www.panduit.com/signaturecore