Rapid Fiber Connect™ platform
frequently asked questions

1. What is the Rapid Fiber Connect platform?

CommScope's Rapid Fiber Connect solution is a rack-scale, plug-and-play platform, purpose-built for ultra-dense AI data centers. It provides a pre-configured, factory-terminated foundation that enables customers to deploy, manage and scale ultra-high density fiber infrastructure with faster deployment, reduced risk, simplified integration and long-term architectural flexibility.

The Rapid Fiber Connect platform consists of a Rapid Fiber Connect panel for GPU cabinets, a Rapid Fiber Connect panel for switch cabinets, and a trunk cable to connect panels terminated with Mass Insert connectors.

2. Who is it designed for?

It's designed for customers involved in building AI clusters comprising of two or more superpods (2,304 GPUs or more). This includes data center operators, designers and professionals engaged in defining new architectures, reference designs and rack-scale solutions—such as architects and designers at chip vendors, OEMs or systems integrators.

3. What challenges does the platform address?

The Rapid Fiber Connect solution addresses challenges related to speed of deployment, extreme fiber density, installation complexity and architectural inflexibility in large-scale AI environments.

4. Why is it positioned as a platform?

As a platform, Rapid Fiber Connect supports multiple configurations, rack designs and deployment phases, allowing customers to adapt as AI architectures evolve over time.

The Rapid Fiber Connect platform consists of two panel types and Mass Insert trunk cables. For example, in a typical application to connect a GPU rack to leaf switch cabinets, a cabling solution will be built using the 3 Rapid Fiber Connect products:

1. a Rapid Fiber Connect panel that is preinstalled in the GPU cabinet, connecting all GPUs with fiber and exposing Mass Insert connections at the rack level.

2. a Rapid Fiber Connect panel that is preinstalled in the switch cabinet, connecting all switches with fiber, and exposing Mass Insert connections at the rack level.

3. a Rapid Fiber Connect Mass Insert trunk cable that connects the two panels.

5. How does it reduce risk?

Risk is reduced through factory-terminated and pre-labelled connections, plug-and-play installation, front- and back-access panels, and Mass Insert connectors that minimize errors and allow rack-to-rack connectivity with 12 times fewer clicks than required by individual MPO12/8 connectors.

6. How does it accelerate deployment?

Deployment is accelerated by the fact that connections inside the rack can be validated at time of installation, reducing fault finding time and Mass Insert connectors that reduce number of required clicks once rack is installed in the data hall and connected to trunk – resulting in fewer physical connection steps on site.

7. How is it optimized for AI architectures?

The platform aligns with modern AI reference designs, offering flexible panel options, optimized connector layouts and integrated spare capacity.

8. Which rack-scale system is the Rapid Fiber Connect panels optimized for?

The initial platform is optimized for GPU server cabinets housing 72 GPUs. These rack-scale systems (and corresponding switch cabinets) can often be integrated with equipment off site by a systems integrator. The Rapid Fiber Connect panel allows for the fiber connections to also be integrated at the same time as the other equipment within the rack.

9. What fiber types are supported?

Multimode is typical for intra-pod, but we do see some examples of customers just using singlemode fiber for the entire deployment. The Rapid Fiber Connect platform can support either type, regardless of the part of the network that it is going into.

10. How dense can the solution scale?

It supports up to 960 fibers in 1RU front-access panels and up to 1,728 fibers in front-and-rear configuration.

11. What connector types are supported by the Rapid Fiber Connect platform for servers and switches, as well as for high fiber-count trunk cables?

The initial release of the Rapid Fiber Connect platform focuses on the most commonly used connectors in AI systems, being the MPO12/8 connectors for both GPUs and switches.

However, the platform is flexible and can accommodate other connector types like MMC, as well as different fiber counts (e.g. MPO or MMC 8,12,16 and 24) depending on customer requirements and transceiver technology utilized. The Rapid Fiber Connect platform uses ganged MMC connectors for its trunk fiber cable; 6 ganged MMC connectors allow to connect 96 fibers with just one connector insertion: greatly accelerating connection of racks on site.

12. Will the Rapid Fiber Connect platform be available to order globally and when? What are the lead times for the product?

Orders can be placed for the Rapid Fiber Connect platform in Q2/Q3 of 2026. Lead times are TBD as production ramps, contact your CommScope representative for further information.

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