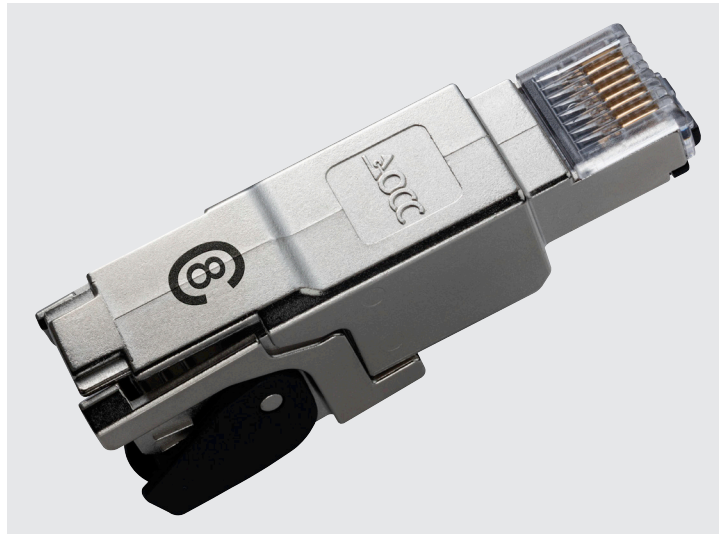


New Category 8 Plug Has Integral Circuit Board Technology

July 25, 2016



Optical Cable Corporation (OCC) announced that it is introducing a new Category 8 RJ45 plug with integral circuit board technology that provides advanced control of crosstalk, return loss and other impediments, "ensuring consistent performance at higher frequencies up to 2000 MHz."

The company continued, "Category 8 Ethernet cable will play a major role in meeting today's burgeoning needs for high-speed communications, whether in the data center, voice, video or other high-bandwidth applications that run on copper cable for distances up to 30 meters."

Derrick Stikeleather, OCC's copper connectivity manager and a member of the TIA TR-42.7 Engineering Subcommittee, commented, "Essentially, the new plug contains technology that provides advanced control of plug performance. In a conventional category style plug, the plug wires must be arranged in specific positions, leading to variations in performance. But when a circuit board is used, it basically eliminates the possibility of plug wire variations. It also means that electrical properties transition from a cable to a terminal in a more controlled fashion."

He added that the new, proprietary technology uses a higher-performance type of circuit board material than what is contained in a standard connector. "Without this, achieving quality data transmission rates of 40 Gbits/sec would not be possible."

This new plug was recently granted a patent, OCC announced, for circuit board layout and the advanced materials used in its construction. The company says the Category 8 plug is ideal for direct-attach, high-speed links and data center server connections.

In 2014, OCC announced the commercial availability of a field-terminable plug that met the then-current draft of Category 8 specifications.

About the newly patented plug, Stikeleather said it provides consistent and reliable terminations that are guaranteed to meet or exceed Category 8 standard specifications when paired with compliant Category 8 cable. The new RJ45 plug is fully backward-compatible with existing RJ45 infrastructure used by a majority of Ethernet connection ports, including Category 6A, Category 6 and Category 5e. It is field-installable. OCC adds that the new plug also is compatible with its family of ruggedized RJ45 connectors, a family of receptacles, plugs, and back shells that enabled users to extend their Ethernet platforms into harsh industrial and military operating environments.