COMMSCOPE®

Ceiling Connector Assembly FAQ

Q.	**What is the Ceiling Connector Assembly?**
A.	The Ceiling Connector Assembly provides a high-quality cable interconnection. It is available as a standalone unit or pre-terminated to an RJ45 plug.
Q.	**Why did we develop it?**
A.	We are seeing increasing numbers of applications migrating to the ceiling; from WiFi APs, to IP security, low voltage LED lighting and more. The Ceiling Connector Assembly provides a superior and simpler installation than field terminated plugs provide.
Q.	**What is the alternative to this?**
A.	There are two common alternatives; the first is the traditional termination of the horizontal cable in an information outlet. This continues to be the preferred method and is CommScope's recommended approach whenever feasible. The second method involves the field termination of an RJ45 plug on the horizontal cable. CommScope does not recommend this approach.
Q.	**Why do we recommend the Ceiling Connector Assembly over the field terminated plug?**
A.	Field terminating an RJ45 plug, especially in a ceiling environment, is a more challenging operation. There are many small parts associated with this installation method, and given the limited space and visibility in most ceilings, it is difficult to achieve the level of termination quality that can be done in factory conditions. This is easily achieved with a Ceiling Connector Assembly.
Q.	**Does the Ceiling Connector Assembly offer other advantages over field installable plugs?**
A.	The Ceiling Connector Assembly allows use of a factory-terminated patchcord with a standard plug, in terms of size, design and performance. This allows the Ceiling Connector Assembly to be connected to all existing wireless access points, as well as many security cameras where the equipment connector is mounted flush to the equipment.
Q.	**What are the ordering options for the Ceiling Connector Assembly?**
A.	The Ceiling Connector Assembly can be ordered individually or with a UTP "pigtail" which is 18 inches (45.7 cm) in length. Plenum and LSZH options are available.
Q.	**What cable types can be terminated in the Ceiling Connector Assembly:**
A.	Category 5e, 6 and 6A UTP can be terminated in the Ceiling Connector. Category 6 and Category 6A versions are available with a factory-terminated 18-inch (46 cm) plug ended cord. Details can be found here.
Q.	**For installations using the standalone Ceiling Connector, is there a minimum cord length?**
A.	The existing solution guidelines for minimum cord lengths must be followed.
Q.	**What environments are available?**
A.	The Ceiling Connector Assembly is designed for ceiling applications. It may also be deployed in outdoor applications provided it is placed and sealed in an outdoor-rated enclosure, as the CCA is not water-resistant or UV-resistant.
Q.	**Does the use of the Ceiling Connector Assembly count as an extra connection?**
A.	Yes, the Ceiling Connector counts as a single connection.
Q.	**Is the Ceiling Connector Assembly available in shielded?**
A.	Not at this point. The initial release is UTP only.
Q.	**Can this be used to connect cable on both sides to "lengthen" or to use as "repair"?**
A.	It can be, but requirements for maximum distance and connector count must be conserved. Splices are not supported by industry cabling standards.
Q.	**Are the channel specifications still applicable when the Ceiling Connector Assembly is used?**
A.	Yes. The Ceiling Connector supports the channel specifications of SYSTIMAX GigaSPEED X10D, GigaSPEED XL and PowerSUM U/UTP solutions, as well as Uniprise and NETCONNECT U/UTP solutions. The CCA-CAT6A supports the channel specifications for all of CommScope's Category 6A/Class EA U/UTP infrastructure solutions. The CCA-CAT6 supports the channel specifications for all of CommScope's Category 6/Class E as well as Category 5e/Class D U/UTP infrastructure solutions.

1

Q.	What do the standards say regarding a link containing a Ceiling Connector assembly?

A. According to TIA-568.2-D and ISO/IEC 11801-1 standards:

1. The CCA module counts as an extra connector and if used should not exceed the total 4 connections in a channel
2. The CCA connection module (without the plug and cordage) has tested as an individual Category 6 or 6A component in the electrical lab using standard discrete wire termination fixtures at both ends.
3. The link with a modular plug at one end of the CCA is the same as a modular plug terminated permanent link (MPTL) specified in TIA 568.2-D annex F
4. The CCA link, consisting of a connection in the telecom room, horizontal cable, ceiling connector, cordage and modular plug, together can be tested as a 3 connection permanent link (see Figure F.1 of TIA-568-D)
5. The results shall comply with the PL requirements in Table 37, line 2256 in TIA 568.2-D because this equation has a 33.13 slope above 300 MHz to account for the higher NEXT caused by 3 connections instead of 2 shown in the equation in Table 37
6. A similar slope adjustment at higher frequencies with additional relaxation above 450 MHz for Category 6A is specified in the ISO 11801-1 FDIS

Q.	How does a link with the CCA get tested?

A. The CCA design and installation complies with a 3 connection permanent link in TIA 568.2-D and ISO 11801-1 FDIS. Field testing (not yet available) will require a PL adapter on one end and a channel adapter on the end with the modular plug.

Everyone communicates. It's the essence of the human experience. *How* we communicate is evolving. Technology is reshaping the way we live, learn and thrive. The epicenter of this transformation is the network—our passion. Our experts are rethinking the purpose, role and usage of networks to help our customers increase bandwidth, expand capacity, enhance efficiency, speed deployment and simplify migration. From remote cell sites to massive sports arenas, from busy airports to state-of-the-art data centers—we provide the essential expertise and vital infrastructure your business needs to succeed. The world's most advanced networks rely on CommScope connectivity.

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