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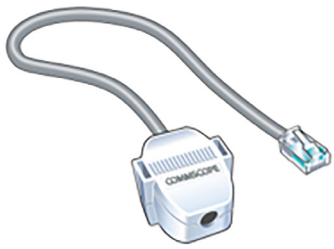
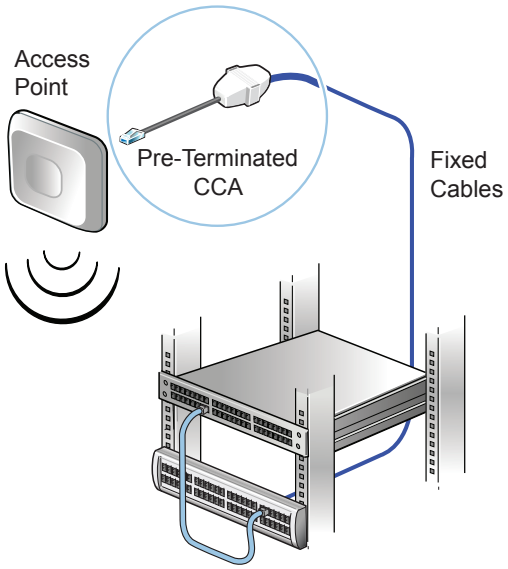
Design Guidelines for Ceiling Connector Assembly

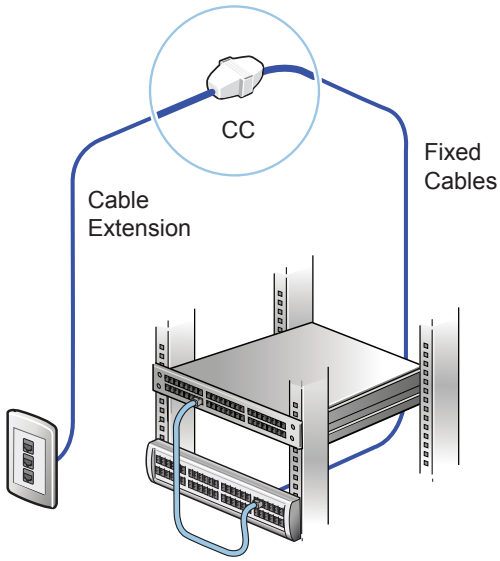
September 2017

Applications

The Ceiling Connector Assembly (referred to as CCA) provides a means to connect UTP horizontal cable to a short, single-ended patch cord assembly in the field. Whereas the CCA includes the patch cord for convenience, the Ceiling Connector is also available for those who wish to terminate the assembly to a single ended patch cord. Once installed, the plug ended link may be used to connect to cameras, access points, and other ceiling-mounted devices. As an alternative to a connector termination with cord, a cable end can be easily terminated on the CCA and plugged into the end equipment. In a different application, office moves can sometimes require a change in outlet location, and the Ceiling Connector can be used if the new outlet location requires additional cable length.







Building upon CommScope's cable engineering knowledge, the Ceiling Connector solution is designed to provide maximum performance, flexibility and durability. They feature a simplified termination that requires no special tools and can provide a high quality result in typically challenging working locations, such as over drop ceilings.

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.

Key features & benefits

Electrical performance:	• ANSI/TIA-568-C.2 Category 6A / ISO 11801 Class EA performance compliant.Meets or exceeds all ANSI/TIA-568-C.2 Category 6A and ISO 11801 Class EA connector and channel transmission performance requirements.
	• Meets applicable requirements of IEC 60603-7
	• Supports IEEE 802.3af, 802.3at and proposed 802.3bt* PoE applications.
Mechanical features:	• Flammability rating: The Connector is dual rated - Plenum and Low Smoke Zero Halogen
	• Operating temperature:14°F to 140°F (-10°C to 60°C)
	• Storage temperature: -40°F to 158°F (-40°C to 70°C)
Compliance:	• Safety compliance: ETL Listed; UL 1863 and CAN/CSA-C22.2 (ETL File 3166536CRT-001)
	• RoHS compliant
	• Supports 20 re-termination cycles
	• Qualified for 22-26 AWG solid or stranded conductors

* Consult a CommScope Field Application Engineer if Type 4 Power Sourcing Equipment (PSE) is deployed.

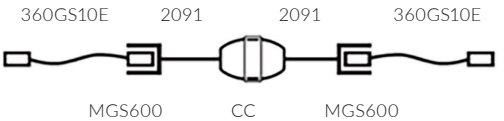
CCA handling

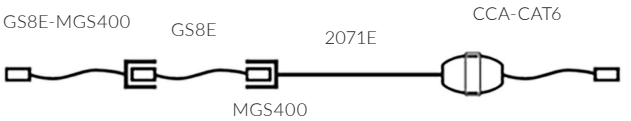
The Ceiling Connector solution can be used in a conventional cable environment and can be routed and placed through typical indoor cabling pathways as cable, but should not be pulled through constraining pathway features. Conduit pulls are not supported, although they can be passed through short sleeves. For termination instructions, refer to this link: 860634932 Ceiling Connector Assembly Installation.

Channel configurations

While the Ceiling Connector allows for cable extension, cabling distance must still fall within infrastructure solution requirements to meet the performance specifications. Connector count must also satisfy solution requirements. When used in a channel, the Ceiling Connector should be counted as a connection.

Ceiling Connectors are designed for direct cable or cord termination, so configurations are limited. The following configurations show some typical examples:

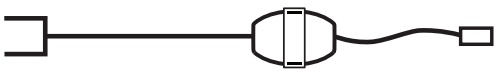




For ordering information on the Ceiling Connector Assembly please refer to this link:
Field installed connector solution for above ceiling applications

Field testing

The CCA can be tested within either a link or a channel. Conventional link testing is defined between connector endpoints, while conventional channel testing is defined between plug endpoints, but current draft standards are calling out links with one end as a plug:



Current field testers vary on their support of such a configuration, but will update as standards become firm. This configuration may be tested as a 3 connection link, and if the tester does not support it then the end cords can be added and it can be tested as a channel.

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