

Frequently Asked Questions

What you need to know about the Universal Connectivity Grid

Q. What is the UCG?	
A.	The Universal Connectivity Grid (or UCG) is a design architecture based on zone cabling principles on a grid layout, which provides guidelines and recommendations to facilitate infrastructure planning and deployment in order to support the growing need for wireless infrastructure and coverage for a wide variety of current and future applications.
Q. Why was UCG developed?	
A.	There are an increasing number of networked applications being deployed over twisted-pair cabling, such as Wi-Fi, in-building wireless (IBW), building automation systems (BAS), security, A/V, and low-voltage lighting. As many of these applications are not being installed in traditional termination locations, they often require greater flexibility in device placement. This flexibility allows them to keep up with future technology advancements. The UCG was developed to take these new requirements into consideration. The UCG Design Guide was developed to assist in the planning of these applications over a common cabling infrastructure within commercial buildings.
Q. Who would benefit from using the UCG Design Guide?	
A.	The design principles in the UCG Design Guide are intended to be used by IT and Facilities planners and engineers very early in the process of designing infrastructure for their anticipated networked applications.
Q. What types of applications does the UCG cover?	
A.	In addition to traditional voice and data, the UCG provides guidelines for workstations, Wi-Fi, in-building wireless, digital signage and dashboards, paging and sound masking, low-voltage lighting, occupancy sensors, BAS controls, access control and security cameras.
Q. Does the UCG comply with guidelines within the cabling standards bodies, such as TIA TSB-162-A (Telecommunications Cabling Guidelines for Wireless Access Points) or ISO/IEC 24704 (IT—Customer premises cabling for wireless access points)?	
A.	Yes. The UCG is in alignment with TIA and ISO cabling guidelines for wireless access points. The UCG Design Guide recommends a standard grid layout with cells measuring 60 feet x 60 feet (aligned with TIA-162-A), or the hexagonal grid layout in ISO/IEC 24704. The UCG provides guidelines for many more networked applications.

Q.	How do these guidelines differ from TIA TSB-862-A (Building Automation Systems Cabling Standard)?
A.	The focus of TSB 862-A is to provide detailed planning and installation guidelines for BAS systems (HVAC, alarm and control, paging, etc.) over structured cabling. The UCG addresses a much wider variety of networked applications. As the need for wireless networking continues to grow at a rapid pace, the UCG guidelines define the grid layout based on wireless coverage recommendations.
Q.	Is there a specific CommScope product offering in concert with UCG?
A.	CommScope can provide the structured cabling channels that meet all industry requirements for performance, standards compliance and specific applications, such as HDBaseT and four-pair PoE. For nonplenum-rated environments, CommScope offers surface-mount and zone boxes that may be included in a UCG design. However, due to the wide regional variation of zone boxes and consolidation points, these are not part of a standardized offer at this time. We anticipate that these needs will be fulfilled by the PartnerPRO™ Network.
Q.	What are the elements of the UCG?
A.	The UCG Design Guide and overview brochure can be found on commscope.com



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