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The bridge to possible

Data Sheet

Cisco Catalyst 3560-CX and 2960-CX Series Compact Switches

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The Cisco® Catalyst® Compact Switches easily expand your Ethernet and Multigigabit Ethernet infrastructure outside the wiring closet to enable new workspaces, extend wireless LANs, and connect PoE devices. These fanless, small form-factor switches are ideal for space-constrained deployments where multiple cable runs would be challenging. With speeds that reach 10Gbps, the Cisco Catalyst 3560CX Multigigabit Ethernet Switches support current and next-generation wireless speeds and standards (including 802.11ac Wave 2) on existing cabling infrastructure.



Figure 1.
Cisco Catalyst 3560-CX and 2960-CX Switch Family.

Product Overview

The Cisco Catalyst 3560-CX and 2960-CX Series Compact Switches help optimize network deployments. These Gigabit Ethernet (GbE) and Multigigabit Ethernet (mGig) managed switches are ideal for high-speed data connectivity, Wi-Fi backhaul, and Power over Ethernet (PoE+) connectivity in places where space is at a premium. With a single copper or fiber cable from the wiring closet, Cisco Catalyst compact switches enable IP connectivity for devices such as IP phones, wireless access points, surveillance cameras, PCs, and video endpoints.

With their quiet, fanless design and compact footprint, these switches can come out of the data closet and be placed closer to the users. This means shorter cable runs and greater flexibility as you grow your network.

Cisco Catalyst 3560-CX and 2960-CX Series Compact Switch Highlights

- 8 or 12 Gigabit Ethernet ports with line rate forwarding performance
- 6 Gigabit Ethernet plus 2 Multigigabit Ethernet (100 Mbps/1/2.5/5/10 Gbps) ports with line rate forwarding performance (selected model)
- Gigabit and Multigigabit (100 Mbps/1/2.5/5/10 Gbps) copper, small form-factor pluggable (SFP) or 10G SFP+ uplinks
- Power over Ethernet Plus (PoE+) support with up to 240W of PoE budget
- Power over Ethernet (PoE) pass-through enables the compact switch to draw Cisco Universal PoE
- (Cisco UPOE™) power from the wiring closet and pass it to end devices (selected model) with the additional option to be powered by auxiliary AC-DC or DC-DC power adapter
- Cisco Instant Access mode to enable single point of management and simplify operation (selected models)
- Advanced Layer 2 (LAN Base) and Layer 3 (IP Base) support with an option to upgrade to IP services
- Fanless design and silent operation

- Enhanced Limited Lifetime Warranty (E-LLW)

Features and Benefits

Like the larger Cisco Catalyst switches typically used in wiring closets, the Cisco Catalyst Compact switches are a managed option for consistency across your LAN switching network. Unlike unmanaged switches and hubs, they provide advanced networking features for flexibility, security, and scale.

Table 1 lists many of the Cisco Catalyst 3560-CX and 2960-CX switch features and benefits.

Table 1. Compact Switch Features and Benefits Summary

Feature	Benefits
Hardware	
Small form factor; fanless design; silent operation	The switch can be used in open workspaces and other areas that cannot tolerate equipment noise and where multiple cable runs could be difficult, expensive, and intrusive.
Flexible mounting options	The switch can be mounted on the wall, under a desk, rack, DIN rail, or practically anywhere they are needed.
Cisco Multigigabit Ethernet	<p>With the enormous growth of 802.11ac and new wireless applications, wireless devices are driving the demand for more network bandwidth. This creates a need for a technology that supports speeds higher than 1 Gbps on all cabling infrastructure. Cisco Multigigabit Ethernet technology is a unique Cisco innovation that allows you to achieve bandwidth between speeds of 100Mbps and 10 Gbps over traditional Cat 5e cabling or above. In addition, the Multigigabit ports on the Cisco Catalyst Compact switch support PoE+, which is increasingly important for next-generation workspaces and Internet of Things (IoT) ecosystems. The Multigigabit Ethernet ports can also be used as uplinks to connect to traditional access switches such as the Cisco Catalyst 3850/4500 switches.</p> <p>Cisco Multigigabit technology offers significant benefits for a diverse range of speeds, cable types, and PoE power. The benefits can be grouped into three different areas:</p> <ul style="list-style-type: none"> • Multiple speeds: Cisco Multigigabit technology supports autonegotiation of multiple speeds on switch ports. The supported speeds are 100 Mbps, 1 Gbps, 2.5 Gbps, and 5 Gbps on Cat 5e cable and up to 10 Gbps over Cat 6a cabling. • Cable type: The technology supports a wide range of cable types, including Cat 5e, Cat 6, and Cat 6a or above. • PoE power: The technology supports PoE and PoE+ for all the supported speeds and cable types.
10-Gigabit SFP+ uplinks	Accommodates business growth and increased traffic, such as aggregate upstream gigabit traffic loads from 802.11ac Wi-Fi access points.
Increased PoE+ Scale	Provides up to 240W of PoE+ budget (twice the power per switch than previous series).
Perpetual PoE	Provides uninterrupted power to a powered-down device even when the switch is booting. This eliminates the need for a backup power source.

Feature	Benefits
PoE pass-through	PoE pass-through gives the ability to power PoE end devices through drawing Cisco UPOE from the wiring closet. The Cisco Catalyst WS-C3560CX-8PT-S has eight downlink ports with two Cisco UPOE input ports that allow it to be powered by another switch. These switches do not need a power supply and receive power over the uplink from an upstream PoE or Cisco UPOE device, providing deployment flexibility and availability. These switches are ideal for wiring-constrained and space-constrained applications.
Management and Operations	
Cisco SDA Extended Node	SDA Extended Node provides Cisco DNA Center Automation and Assurance for C3560CX switches. It also extends Fabric Benefits (e.g. stretch subnet) to end points connected to the switches, allowing consistent segmentation and policy-based access. SDA Extended Node requires Cisco DNA-A license on the C3560CX switches, and a Fabric-Edge Capable switch at the upstream.
Cisco Network Plug 'n Play (PnP)	Network Plug-n-Play (PnP) is a secure, scalable solution that accelerates network device deployments by automating the installation and configuration of Cisco IOS software. The Cisco Catalyst 3560-CX and 2960-CX switches are 'Network-PnP Ready' and can be used as part of the APIC-EM solution for automated switch deployments. This feature helps improve productivity, cut costs, reduce downtime, and enhance the user experience.
Cisco Catalyst Smart Operations	This comprehensive set of Cisco Catalyst technologies and Cisco IOS Software features simplify LAN deployment, configuration, and troubleshooting. <ul style="list-style-type: none"> • Cisco Smart Install enables the configuration of the Cisco IOS Software image and switch without user intervention. • Cisco Auto Smartports provides automatic configuration as end devices connect to the switch port, allowing autodetection and plug-and-play of the device onto the network. Interface templates containing configurations or policies that can be applied to ports are also supported. • Cisco Smart Troubleshooting is an extensive array of debug diagnostic commands and system health checks, including Generic Online Diagnostics (GOLD) and Onboard Failure Logging (OBFL). • Embedded Event Manager (EEM), supported on the Cisco Catalyst 3560-CX, provides real-time network event detection and onboard automation. You can adapt the behavior of your network devices to align with business needs.
Cloud and System Management	<ul style="list-style-type: none"> • Cisco Prime® Infrastructure provides comprehensive network lifecycle management with an extensive library of features that automate initial and day-to-day management. Cisco Prime integrates hardware and software platform expertise and operational experience into a powerful set of workflow-driven configuration, monitoring, troubleshooting, reporting, and administrative tools. • Cisco Network Assistant is a PC-based, centralized network management and configuration application for small and medium-sized business (SMB) with up to 250 users. An intuitive GUI lets you easily apply common services across Cisco switches, routers, and access points. • Cisco Active Advisor is a cloud-based service that provides essential lifecycle information about your network inventory. Available by itself or as a component of other Cisco network management applications, it helps you reduce your network's overall risk by keeping you up-to-date on the status of your products.

Feature	Benefits
Operational Simplicity	<ul style="list-style-type: none"> • Link Aggregation Control Protocol (LACP) for creating Ethernet channeling with devices that conform to IEEE 802.3ad. Similar to Cisco EtherChannel technology and PAGP. • Dynamic Host Configuration Protocol (DHCP) autoconfiguration of multiple switches through a boot server. • Multicast VLAN Registration (MVR) continuously sends multicast streams in a multicast VLAN. Isolates streams from subscriber VLANs for bandwidth and security reasons. • Voice VLAN keeps voice traffic on a separate VLAN for easier administration and troubleshooting. • Cisco VLAN Trunking Protocol (VTP) supports dynamic VLANs and dynamic trunk configuration across all switches. • Remote Switch Port Analyzer (RSPAN) allows administrators to remotely monitor ports in a Layer 2 switch network from any other switch in the same network. • For enhanced traffic management, monitoring, and analysis, the Embedded Remote Monitoring (RMON) software agent supports four RMON groups (history, statistics, alarms, and events).
Security	
Cisco TrustSec	<p>A suite of components that secures networks, data, and resources with policy-based access control, identity, and role-aware networking with the following elements:</p> <ul style="list-style-type: none"> • Cisco TrustSec SXP support to simplify security and policy enforcement throughout the network. For more information about Cisco TrustSec security solutions, visit cisco.com/go/TrustSec. • Hardware on the Cisco Catalyst 3560-CX for IEEE 802.1AE MACsec for Layer 2, line-rate Ethernet data confidentiality and integrity on host-facing ports. Protects against man-in-the-middle attacks (snooping, tampering, and replay). • Flexible authentication that supports multiple authentication mechanisms including 802.1X, MAC Authentication Bypass, and web authentication using a single, consistent configuration. • Monitor mode that creates a user-friendly environment for 802.1X operations. • RADIUS change of authorization and downloadable ACLs for comprehensive policy management. • 802.1X supplicant with Network Edge Access Transport (NEAT) for extended secure access; compact switches in the conference rooms have the same level of security as switches inside a locked wiring closet.
Threat Defense	<p>Advanced, integrated security features that provide threat defense capabilities for mitigating man-in-the-middle attacks and protecting your critical network infrastructure.</p> <ul style="list-style-type: none"> • Superior Layer 2 capabilities for mitigating MAC, IP, and ARP spoofing risks. Also protects port security, guards against DHCP snooping, and supports Dynamic ARP Inspection and IP Source Guard. • Ipv6 first-hop security with Binding Integrity Guard, RA Guard, and DHCP Guard. • Private VLAN provides security and isolation between switch ports. • Multidomain Authentication allows an IP phone and a PC to authenticate on the same switch port while placing them on appropriate voice and data VLAN. • Secure Shell (SSH), Kerberos, and Simple Network Management Protocol Version 3 (SNMPv3) that encrypt administrator traffic during Telnet and SNMP sessions to keep access credentials secure. • Port-based Access Control List (ACL) to let the switch automatically allow or block packets based on policies for source and destination IP addresses. Rules can be set up differently on a port-by-port basis. • Secure Boot to make sure that only signed and authorized images can load on the switch. • Cisco AutoSecure to simplify security configurations with a single-line CLI.
Power Management and Energy Efficiency	
Switch Hibernate Mode	<p>Innovative technology that puts the switch in an ultra-low power mode during periods of nonoperation such as nights and weekends. The switch can be configured to be in the hibernate mode using the Cisco Energy Management Suite.</p>
IEEE 802.3az or Energy-Efficient Ethernet (EEE)	<p>Ports dynamically sense idle periods between traffic bursts and quickly switch the interfaces into a low-power idle mode, reducing power consumption.</p>
Perpetual PoE	<p>Provides uninterrupted power to a powered-down device even when the switch is booting. This eliminates the need for a backup power source.</p>
PoE pass-through	<p>PoE pass-through gives the ability to power PoE end devices through drawing Cisco UPOE from the wiring</p>

Feature	Benefits
	closet. The Cisco Catalyst 3560CX-8PT-S has eight downlink ports with two Cisco UPOE input ports that allow it to be powered by another switch. These switches do not need a power supply and receive power over the uplink from an upstream PoE or Cisco UPOE device, providing deployment flexibility and availability.
Power Supply	80-Plus Silver Certified.
Traffic Management and QoS	
Application Visibility	NetFlow Lite lets you maintain awareness of all application traffic on the network. It helps capture and record specific packet flows. Exports flow data in the NetFlow Version 9 format for analysis on a wide range of Cisco and third-party collectors.
Advanced Quality of Service	Intelligent traffic management with flexible mechanisms for marking, classifying, and scheduling traffic at wire speed. Includes: <ul style="list-style-type: none"> • Up to eight egress queues per port and strict priority queuing so that the highest priority packets are serviced ahead of all other traffic. • Shaped Round Robin (SRR) scheduling and Weighted Tail Drop (WTD) congestion avoidance. • Flow-based rate limiting and up to 256 aggregate or individual policers per port.

Product Details

Switch Models

The Cisco Catalyst Compact Switches are available in nine switch models. They vary by whether they support both Layer 2 and Layer 3 services or Layer 2 services only; whether they support Power over Ethernet Plus (PoE+); by the number of Gigabit Ethernet and Multigigabit Ethernet ports; the aggregate power provided, and the type of cabling connections they support.

Tables 2, 3, and 4 compare the available switch models and list the software package that ships by default with each model and how much PoE power is available for the downlink ports.

Table 2. Cisco Catalyst 3560-X Compact Switch Models and Default Software

Model	Ethernet Ports	PoE Output Ports	Available PoE Power	Uplinks	Default Software
3560CX-8TC-S	8 x 10/100/1000 Gigabit Ethernet	NA		2 x 1G copper plus 2 x 1G SFP	IP Base (IP Services with RTU License)
3560CX-12TC-S	12 x 10/100/1000 Gigabit Ethernet	NA		2 x 1G copper plus 2 x 1G SFP	IP Base (IP Services with RTU License)
3560CX-8PC-S	8 x 10/100/1000 Gigabit Ethernet	8 PoE+	240W	2 x 1G copper plus 2 x 1G SFP	IP Base (IP Services with RTU License)
3560CX-12PC-S	12 x 10/100/1000 Gigabit Ethernet	12 PoE+	240W	2 x 1G copper plus 2 x 1G SFP	IP Base (IP Services with RTU License)
3560CX-12PD-S	12 x 10/100/1000 Gigabit Ethernet	12 PoE+	240W	2 x 1G copper plus 2 x 10G SFP+	IP Base (IP Services with RTU License)
C3560CX-8PT-S	8 x 10/100/1000 Gigabit Ethernet	8 PoE+	Up to 146W	2 x 1G copper (Cisco UPOE+ uplinks)	IP Base (IP Services with RTU License)

Model	Ethernet Ports	PoE Output Ports	Available PoE Power	Uplinks	Default Software
C3560CX-8XPD-S	6 x 10/100/1000 Gigabit Ethernet plus 2 Multigigabit Ethernet 100/2500/5000/10000	8 PoE+	240W	2 x 10G SFP+	IP Base (IP Services with RTU License)

Table 3. C3560CX-8PT-S Switch PoE and PoE+ Power Capacity

Model	Powering Option	Available PoE Power (W)	Can Switch Be Powered with Uplinks?
3560CX-8TC-S	Internal power supply	0W	No
3560CX-12TC-S	Internal power supply	0W	No
3560CX-8PC-S	Internal power supply	240W	No
3560CX-12PC-S	Internal power supply	240W	No
3560CX-12PD-S	Internal power supply	240W	No
C3560CX-8PT-S	1 PoE uplink	0W	No
	2 PoE uplinks	0W	Yes
	1 PoE+ uplink	0W	Yes
	2 PoE+ uplinks	20W	Yes
	1 Cisco UPOE uplink	22W	Yes
	2 Cisco UPOE uplinks	68W	Yes
	Auxiliary input	54W	Yes
	1 PoE uplink plus auxiliary input	65W	Yes
	2 PoE uplinks plus auxiliary input	76W	Yes
	1 PoE+ uplink plus auxiliary input	76W	Yes
	2 PoE+ uplinks plus auxiliary input	98W	Yes
	2 Cisco UPOE uplinks plus auxiliary input	146W	Yes
3560CX-8XPD-S	Internal power supply	240W	No

Table 4. Cisco Catalyst 2960-X Compact Switch Models and Default Software

Model	Ethernet Ports	PoE Output Ports	Available PoE Power	Uplinks	Default Software
2960CX-8TC-L	8 x 10/100/1000 Gigabit Ethernet	N/A		2 x 1G copper plus 2 x 1G SFP	LAN Base
2960CX-8PC-L	8 x 10/100/1000 Gigabit Ethernet	8 PoE+	124W	2 x 1G copper plus 2 x 1G SFP	LAN Base

Note: All four uplink ports (two copper and two fiber) can be used simultaneously and also as downlinks.

Switch Software

Cisco Catalyst 3560-CX compact switches ship with the IP Base version of Cisco IOS® Software. The 3560-CX switches can be upgraded to use the IP Services version of IOS Software with a Right-To-Use (RTU) License. The IP Base and IP Services feature set on Cisco Catalyst 3560-CX switches provides baseline enterprise services in addition to all LAN Base features. They support Layer 3 networking features, including support for routed access, Cisco TrustSec, Media Access Control security (MACsec), and other advanced network services. The IP Services feature set provides full Layer 3 routing capabilities with Open Shortest Path First (OSPF), Border Gateway Protocol (BGP), Enhanced Internal Gateway Routing Protocol (EIGRP), Policy-Based Routing (PBR), Multicast Routing, and Virtual Routing and Forwarding (VRF) Lite.

Cisco Catalyst 2960-CX Series compact switches ship with the LAN Base version of Cisco IOS Software. These switches deliver advanced Layer 2 switching with intelligent Layer 2 through 4 services for the network edge, such as voice, video, and wireless LAN services.

Licensing and Software Policy

Customers with Cisco Catalyst LAN Base and IP Base software feature sets will receive updates and bug fixes designed to maintain the compliance of the software with published specifications, release notes, and industry standards compliance as long as the original end user continues to own or use the product or for up to one year from the end-of-sale date for this product, whichever occurs earlier. This policy supersedes any previous warranty or software statement and is subject to change without notice.

Cisco DNA Licensing

Table 5. Cisco DNA Essentials, Advantage, and Premier Package Features

Feature	Cisco DNA Essentials	Cisco DNA Advantage	Cisco DNA Premier
Basic Automation Cisco Network Plug-and-Play application, LAN Automation	✓	✓	✓
Element management Discovery, inventory, topology, software image, licensing, and configuration management	✓	✓	✓
Basic Assurance Health Dashboards – Network, Client, Application Basic Switch & Wired Client Health Monitoring	✓	✓	✓
Advanced Automation SD-Access*, Application Policy*, DNA Service for Bonjour*	✓	✓	✓
Element Management Patch Lifecycle Management	X	✓	✓
Assurance & Analytics Global Insights, Trends, Compliance, Custom Reports, Switch & Wired Client 360, SD-Access* and Switch Insights, Application Health, Application 360*, Performance* (Loss, Latency, Jitter)	X	✓	✓
ISE Base, Plus and Steathwatch	X	X	✓

Product Specifications

Table 6 provides hardware specifications for the Cisco Catalyst 3560-CX and 2960-CX compact switches.

Table 6. Cisco Catalyst 3560-CX and 2960-CX Series Compact Switch Hardware

Description	Specification			
Performance		Cisco Catalyst 3560-CX	Cisco Catalyst 2960-CX	
	Forwarding Bandwidth	46 Gbps (with C3560CX-8XPD-S) 34 Gbps (with C3560CX-12PD-S) 16 Gbps (with 1 G uplinks)	12 Gbps	
	Switching Bandwidth (full-duplex capacity)	92 Gbps (with C3560CX-8XPD-S) 68 Gbps (with C3560CX-12PD-S) 32 Gbps (with 1 G uplinks)	24 Gbps	
	Flash memory	128 MB	128 MB	
	Memory DRAM	512 MB	512 MB	
	Max VLANs	1023	255	
	VLAN IDs	4000	4000	
	Maximum Transmission Unit (MTU)	Up to 9000 bytes	Up to 9000 bytes	
	Jumbo frames	9198 bytes	9198 bytes	
	Forwarding rate 64 Byte Packet Cisco Catalyst 3560-CX and 2960-CX			
		2960CX-8TC-L	17.9 mpps	
		2960CX-8PC-L	17.9 mpps	
		3560CX-8TC-S	17.9 mpps	
		3560CX-12TC-S	23.8 mpps	
		3560CX-8PC-S	17.9 mpps	
		3560CX-12PC-S	23.8 mpps	
		3560CX-12PD-S	50.6 mpps	
		3560CX-8PT-S	14.9 mpps	
		3560CX-8XPD-S	68.4 mpps	
	Resource Cisco Catalyst 3560-CX and 2960-CX			
See the release notes for the SDM Templates for 3560-CX and 2960-CX: https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2960cx_3650cx/software/release/15-2_3_e/release_notes/rn-1523e-2960cx-3560cx.html				
Connectors and cabling	Cisco Catalyst 3560-CX and 2960-CX Ethernet Interfaces:			
	<ul style="list-style-type: none"> • 10BASE-T ports: RJ-45 connectors, 2-pair Category 3, 4, or 5 Unshielded Twisted-Pair (UTP) cabling • 100BASE-TX ports: RJ-45 connectors, 2-pair Category 5 UTP cabling • 1000BASE-T ports: RJ-45 connectors, 4-pair Category 5 UTP cabling • 1000BASE-T SFP-based ports: RJ-45 connectors, 4-pair Category 5 UTP cabling 			
	Cisco Catalyst 3560-CX and 2960-CX SFP and SFP+ interfaces:			

Description	Specification				
	For information about supported SFP/SFP+ modules, refer to the Transceiver Compatibility matrix tables at https://www.cisco.com/c/en/us/support/interfaces-modules/transceiver-modules/products-device-support-tables-list.html				
Power connectors	<ul style="list-style-type: none"> Customers can provide power to a switch by using the internal power supply. The connector is located at the back of the switch. The internal power supply is an autoranging unit The internal power supply supports input voltages between 100 and 240VAC Use the supplied AC power cord to connect the AC power connector to an AC power outlet <p>Note: The Cisco Catalyst WS-C3560CX-8PT-S has an option for an external AC-DC or DC-DC power adapter if desired.</p>				
Indicators	Per-port status: Link integrity, disabled, activity, speed, full-duplex System status: System, link status, link duplex, link speed				
Dimensions (H x W x D)	Cisco Catalyst 3560-CX and 2960-CX	Inches	Centimeters		
	2960CX-8TC-L	1.75 x 10.6 x 8.4	4.44 x 26.9 x 21.3		
	2960CX-8PC-L	1.75 x 10.6 x 9.4	4.44 x 26.9 x 23.8		
	3560CX-8TC-S	1.75 x 10.6 x 8.4	4.44 x 26.9 x 21.3		
	3560CX-12TC-S	1.75 x 10.6 x 8.4	4.44 x 26.9 x 21.3		
	3560CX-8PC-S	1.75 x 10.6 x 9.4	4.44 x 26.9 x 23.8		
	3560CX-12PC-S	1.75 x 10.6 x 9.4	4.44 x 26.9 x 23.8		
	3560CX-12PD-S	1.75 x 10.6 x 9.4	4.44 x 26.9 x 23.8		
	3560CX-8PT-S	1.75 x 10.6 x 7.0	4.44 x 26.9 x 17.7		
	3560CX-8XPD-S	1.75 x 10.6 x 10.4	4.44 x 26.9 x 26.4		
Weight	Cisco Catalyst 3560-CX and 2960-CX	Pounds	Kilograms		
	2960CX-8TC-L	3.8	1.72		
	2960CX-8PC-L	5.0	2.27		
	3560CX-8TC-S	3.8	1.72		
	3560CX-12TC-S	3.9	1.77		
	3560CX-8PC-S	5.0	2.27		
	3560CX-12PC-S	5.1	2.31		
	3560CX-12PD-S	5.1	2.31		
	3560CX-8PT-S	3.5	1.58		
	3560CX-8XPD-S	6.0	2.72		
Environmental ranges		Cisco Catalyst 3560-CX		Cisco Catalyst 2960-CX	
	Operating* temperature up to 5000 ft (1524 m)	-5°C to +45°C**	+23°F to +113°F	-5°C to +45°C**	+23°F to +113°F
	Operating* temperature up to 10,000 ft (3048 m)	-5°C to +45°C	+23°F to +113°F	-5°C to +45°C	+23°F to +113°F
	Storage temperature up to	-25°C to +70°C	-13°F to +158°F	-25°C to +70°C	-13°F to +158°F

Description	Specification				
	15,000 ft (4572 m)				
	Operating altitude	Up to 3048 m	Up to 10,000 ft	Up to 3048 m	Up to 10,000 ft
	Storage altitude	Up to 4000 m	Up to 15,000 ft	Up to 4000 m	Up to 15,000 ft
	Operating relative humidity	5% to 95% noncondensing		5% to 95% noncondensing	
	Storage relative humidity	5% to 95% noncondensing		5% to 95% noncondensing	
	* Minimum ambient temperature for cold start is 0°C (+32°F)				
	** 10G SKUs have a maximum operating temperature of 40°C. For WS-C3560CX-8XPD-S, the max operating temperature will be 35°C when installed inverted and under fully loaded conditions (max. POE and 10G SFP+ transceivers installed)				
Mean Time Between Failure (MTBF)	Cisco Catalyst 3560-CX	MTBF	Cisco Catalyst 2960-CX	MTBF	
	3560CX-8TC-S	756,260	2960CX-8TC-L	756,260	
	3560CX-12TC-S	755,270	2960CX-8PC-L	569,530	
	3560CX-8PC-S	569,530			
	3560CX-12PC-S	553,140			
	3560CX-12PD-S	528,480			
	3560CX-8PT-S	737,740			
	3560CX-8XPD-S	528,480			

Table 7 describes the power specifications for Cisco Catalyst 3560-CX and 2960-CX switches.

Table 7. Power Specifications for Cisco Catalyst 3560-C and 2960-C Series Compact Switches

Description	Specification			
Measured 100% throughput power consumption	Cisco Catalyst 3560-CX	Switch Power Consumption Watts	Cisco Catalyst 2960-CX	Switch Power Consumption Watts
	3560CX-8TC-S	18.8W	2960CX-8TC-L	18.8W
	3560CX-12TC-S	20.8W	2960CX-8PC-L	24.5W
	3560CX-8PC-S	24.4W		
	3560CX-12PC-S	26.3W		
	3560CX-12PD-S	29.5W		
	3560CX-8PT-S	Single uplink = 22.9W ¹ Dual uplink = 24.3W ¹		
	3560CX-8XPD-S	35.2W		
Measured 10% throughput power consumption	Cisco Catalyst 3560-CX	Switch Power Consumption Watts	Cisco Catalyst 2960-CX	Switch Power Consumption Watts
	3560CX-8TC-S	18.6W	2960CX-8TC-L	18.7W
	3560CX-12TC-S	20.6W	2960CX-8PC-L	24.3W
	3560CX-8PC-S	24.2W		

Description	Specification						
	3560CX-12PC-S	26.1W					
	3560CX-12PD-S	28.9W					
	3560CX-8PT-S	Single uplink = 22.8W ¹ Dual uplink = 24.2W ¹					
	3560CX-8XPD-S	34.5W					
Measured 0% throughput power consumption (with EEE)	Cisco Catalyst 3560-CX	Switch Power Consumption Watts		Cisco Catalyst 2960-CX	Switch Power Consumption Watts		
	3560CX-8TC-S	14.8W		2960CX-8TC-L	15W		
	3560CX-12TC-S	15.6W		2960CX-8PC-L	20.4W		
	3560CX-8PC-S	21.3W					
	3560CX-12PC-S	21.3W					
	3560CX-12PD-S	24.9W					
	3560CX-8PT-S	Single uplink = 20.1W ¹ Dual uplink = 21.3W ¹					
3560CX-8XPD-S	32.7W						
Measured 100% throughput power consumption (with maximum possible PoE loads)	Cisco Catalyst 3560-CX	Switch Power Consumption Watts		Cisco Catalyst 2960-CX	Switch Power Consumption Watts		
	3560CX-8TC-S	NA		2960CX-8TC-L	NA		
	3560CX-12TC-S	NA		2960CX-8PC-L	161.4W		
	3560CX-8PC-S	269.1W					
	3560CX-12PC-S	275.2W					
	3560CX-12PD-S	278W					
	3560CX-8PT-S	180W					
3560CX-8XPD-S	285.1W						
AC/DC input voltage and current	Cisco Catalyst 3560-CX			Cisco Catalyst 2960-CX			
		I/P Voltage	I/P Current		I/P voltage	I/P Current	
	3560CX-8TC-S	100-240 VAC	0.5-0.2A	2960CX-8TC-L	100-240 VAC	0.5-0.2A	
	3560CX-12TC-S	100-240 VAC	0.5-0.2A	2960CX-8PC-L	100-240 VAC	3.25-1.5A	
	3560CX-8PC-S	100-240 VAC	3.25-1.5A				
	3560CX-12PC-S	100-240 VAC	3.25-1.5A				
	3560CX-12PD-S	100-240 VAC	3.25-1.5A				
	3560CX-8PT-S	18-60VDC	6.0-1.6A				
3560CX-8XPD-S	100-240 VAC	3.25-1.5A					
Power rating	Cisco Catalyst 3560-CX			Cisco Catalyst 2960-CX			
		Watts	KVA	BTU	Watts	KVA	BTU
	3560CX-8TC-S	30	0.05	170.6	30	0.05	170.6

Description	Specification							
	3560CX-12TC-S	30	0.05	170.6	2960CX-8PC-L	170	0.19	648.3 ¹
	3560CX-8PC-S	280	0.3	1023.6 ¹				
	3560CX-12PC-S	280	0.3	1023.6 ¹				
	3560CX-12PD-S	290	0.31	1057.7 ¹				
	3560CX-8PT-S	90	0.11	375.3 ¹				
	3560CX-8XPD-S	290	0.31	1057.7 ¹				
	¹ Switch dissipation only (excludes PoE, which is dissipated at the end device). Power measurements are best and worst case. Best case is 1 PoE+ connection. Worst case is 2 PoE connections.							
PoE and PoE+	<ul style="list-style-type: none"> Maximum power supplied per Port for PoE+ is 30W Maximum power supplied per port for PoE: 15.4W 							
PoE Power Supply Characteristics	Capacity: 300W, Efficiency: 80 Plus Silver certified							
	% Load		Efficiency		Power Factor			
	• 20		• 85%		• 0.8			
	• 50		• 88%		• 0.9			
• 100		• 90%		• 0.95				

Table 8 shows switch management and standards support.

Table 8. Management and Standards Support for Cisco Catalyst 3560-CX and 2960-CX Series Compact Switches

Description	Specification	
Management	<ul style="list-style-type: none"> BRIDGE-MIB CISCO-CABLE-DIAG-MIB CISCO-CDP-MIB CISCO-CLUSTER-MIB CISCO-CONFIG-COPY-MIB CISCO-CONFIG-MAN-MIB CISCO-DHCP-SNOOPING-MIB CISCO-ENTITY-VENDORTYPE-OID-MIB CISCO-ENVMON-MIB CISCO-ERR-DISABLE-MIB CISCO-FLASH-MIB CISCO-FTP-CLIENT-MIB CISCO-IGMP-FILTER-MIB CISCO-IMAGE-MIB CISCO-IP-STAT-MIB CISCO-LAG-MIB CISCO-MAC-NOTIFICATION-MIB CISCO-MEMORY-POOL-MIB CISCO-PAGP-MIB CISCO-PING-MIB CISCO-POE-EXTENSIONS-MIB 	<ul style="list-style-type: none"> CISCO-TC-MIB CISCO-TCP-MIB CISCO-UDLDP-MIB CISCO-VLAN-IFTABLE RELATIONSHIP-MIB CISCO-VLAN-MEMBERSHIP-MIB CISCO-VTP-MIB ENTITY-MIB ETHERLIKE-MIB IEEE8021-PAE-MIB IEEE8023-LAG-MIB IF-MIB INET-ADDRESS-MIB OLD-CISCO-CHASSIS-MIB OLD-CISCO-FLASH-MIB OLD-CISCO-INTERFACES-MIB OLD-CISCO-IP-MIB OLD-CISCO-SYS-MIB OLD-CISCO-TCP-MIB OLD-CISCO-TS-MIB RFC1213-MIB

Description	Specification	
	<ul style="list-style-type: none"> ● CISCO-PORT-QOS-MIB ● CISCO-PORT-SECURITY-MIB ● CISCO-PORT-STORM-CONTROL-MIB ● CISCO-PRODUCTS-MIB ● CISCO-PROCESS-MIB ● CISCO-RTTMON-MIB ● CISCO-SMI-MIB ● CISCO-STP-EXTENSIONS-MIB ● CISCO-SYSLOG-MIB 	<ul style="list-style-type: none"> ● RMON-MIB ● RMON2-MIB ● SNMP-FRAMEWORK-MIB ● SNMP-MPD-MIB ● SNMP-NOTIFICATION-MIB ● SNMP-TARGET-MIB ● SNMPv2-MIB ● TCP-MIB ● UDP-MIB ● ePM MIB
Standards	<ul style="list-style-type: none"> ● IEEE 802.1D Spanning Tree Protocol ● IEEE 802.1p CoS Prioritization ● IEEE 802.1Q VLAN ● IEEE 802.1s ● IEEE 802.1w ● IEEE 802.1x ● IEEE 802.1AB (LLDP) ● IEEE 802.3ad ● IEEE 802.3af ● IEEE 802.3ah (100BASE-X single/multimode fiber only) ● IEEE 802.3x full duplex on 10BASE-T, 100BASE-TX, and 1000BASE-T ports ● IEEE 802.3 10BASE-T specification ● IEEE 802.3u 100BASE-TX specification ● IEEE 802.3ab 1000BASE-T specification ● IEEE 802.3z 1000BASE-X specification 	<ul style="list-style-type: none"> ● 100BASE-BX (SFP) ● 100BASE-FX (SFP) ● 100BASE-LX (SFP) ● 1000BASE-BX (SFP) ● 1000BASE-SX (SFP) ● 1000BASE-LX/LH (SFP) ● 1000BASE-ZX (SFP) ● 1000BASE-CWDM SFP 1470 nm ● 1000BASE-CWDM SFP 1490 nm ● 1000BASE-CWDM SFP 1510 nm ● 1000BASE-CWDM SFP 1530 nm ● 1000BASE-CWDM SFP 1550 nm ● 1000BASE-CWDM SFP 1570 nm ● 1000BASE-CWDM SFP 1590 nm ● 1000BASE-CWDM SFP 1610 nm ● RMON I and II standards ● SNMPv1, SNMPv2c, and SNMPv3
RFC compliance	<ul style="list-style-type: none"> ● RFC 768: UDP ● RFC 783: TFTP ● RFC 791: IP ● RFC 792: ICMP ● RFC 793: TCP ● RFC 826: ARP ● RFC 854: Telnet ● RFC 951: Bootstrap Protocol ● RFC 1542: BOOTP Extensions ● RFC 959: FTP ● RFC 1058: RIP Routing ● RFC 1112: IP Multicast and IGMP ● RFC 1157: SNMPv1 ● RFC 1166: IP Addresses ● RFC 1253: OSPF Routing ● RFC 1256: ICMP Router Discovery ● RFC 1305: NTP ● RFC 1492: TACACS+ 	<ul style="list-style-type: none"> ● RFC 1812: IP Routing ● RFC 1901: SNMPv2C ● RFC 1902-1907: SNMPv2 ● RFC 1981: MTU Path Discovery IPv6 ● RFC 2068: HTTP ● RFC 2080: RIP for IPv6 ● RFC 2131: DHCP ● RFC 2138: RADIUS ● RFC 2233: IF MIB ● RFC 2236: IP Multicast ● RFC 2328: OSPFv2 ● RFC 2273-2275: SNMPv3 ● RFC 2373: IPv6 Aggregatable Addr ● RFC 2453: RIPv2 Routing ● RFC 2460: IPv6 protocol ● RFC 2461: IPv6 Neighbor Discovery ● RFC 2462: IPv6 Autoconfiguration ● RFC 2463: ICMP IPv6

Description	Specification
	<ul style="list-style-type: none"> • RFC 1493: Bridge MIB • RFC 1542: Bootstrap Protocol • RFC 1583: OSPFv2 • RFC 1643: Ethernet Interface MIB • RFC 1723: RIPv2 Routing • RFC 1757: RMON

Note: RFC, MIB and Standards compliance is dependent on IOS Level.

Table 9 shows safety and compliance information.

Table 9. Safety and Compliance Support

Description	Specification
Safety standards	<ul style="list-style-type: none"> • UL 60950-1 • CAN/CSA 22.2 No. 60950-1 • EN 60950-1 • IEC 60950-1 • CE Marking • GB 4943 • IEC 60825
Electromagnetic emissions certifications	<ul style="list-style-type: none"> • FCC Part 15, CFR 47, Class A, North America • EN/IEC 61000-4-5 • EN 55022 (CISPR22) and EN 55024 (CISPR24), CE marking, European Union • AS/NZS, Class A, CISPR22:2004 or EN55022, Australia and New Zealand • VCCI Class A, V-3/2007.04, Japan • KCC (Formerly MIC, GB17625.1-1998) Class A, KN24/KN22, Korea • ANATEL, Brazil • CCC, China • GOST, Russia
Environmental	Reduction of Hazardous Substances (ROHS) 6
Telco	Common Language Equipment Identifier (CLEI) code

Ordering Information

To place an order, consult Table 10 for ordering information and visit [Cisco Commerce Workspace](#).

Table 10. Ordering Information for Cisco Catalyst 3560-CX and 2960-CX Series Compact Switches

Cisco Catalyst 3560-CX Compact Switches	
Part Number	Description

Cisco Catalyst 3560-CX Compact Switches	
WS-C3560CX-8TC-S	3560-CX Switch 8 GE, uplinks: 2 x 1G SFP and 2 x 1G copper, IP Base
WS-C3560CX-12TC-S	3560-CX Switch 12 GE, uplinks: 2 x 1G SFP and 2 x 1G copper, IP Base
WS-C3560CX-8PC-S	3560-CX Switch 8 GE PoE+, uplinks: 2 x 1G SFP and 2 x 1G copper, IP Base
WS-C3560CX-12PC-S	3560-CX Switch 12 GE PoE+, uplinks: 2 x 1G SFP and 2 x 1G copper, IP Base
WS-C3560CX-12PD-S	3560-CX Switch 12 GE PoE+, uplinks: 2 x 10G SFP+ and 2 x 1G copper, IP Base
WS-C3560CX-8PT-S	3560-CX PD PSE Switch 8 GE PoE+, uplinks: 2 x 1G copper (Cisco UPOE powered input), IP Base
WS-C3560CX-8XPD-S	3560-CX Switch 6 GE PoE+, 2 MultiGE PoE+, uplinks: 2 x 10G SFP+, IP Base
Cisco Catalyst 2960-CX Compact Switches	
Part Number	Description
WS-C2960CX-8TC-L	2960-CX Switch 8 GE, uplinks: 2 x 1G SFP and 2 x 1G copper LAN Base
WS-C2960CX-8PC-L	2960-CX Switch, 8 GE PoE+, uplinks: 2 x 1G SFP and 2 x 1G copper LAN Base
Cisco Catalyst 3560-CX and 2960-CX Accessories	
Part Number	Description
PWR-CLP=	Power clip for the 3560-CX and 2960-CX compact switches
PWR-ADPT=	AC-DC power adapter for the WS-C3560CX-8PT-S compact switch
PWR-ADPT-DC=	DC-DC power adapter for the WS-C3560CX-8PT-S compact switch
PWR-ADPT-BRKT=	Power adapter bracket for the WS-C3560CX-8PT-S compact switch (needs either CMPCT-DIN-MNT= or CMPCT-MGNT-TRAY =) to work
CMPCT-CBLE-GRD=	Cable guard for the 3560-CX and 2960-CX compact switches
CMPCT-MGNT-TRAY =	Magnet and Mounting Tray for 3560-CX and 2960-CX compact switches
Cisco Catalyst 3560-CX and 2960-CX Accessories	
Part Number	Description
CMPCT-DIN-MNT=	DIN Rail Mount for 3560-CX and 2960-CX compact switches
RCKMNT-19-CMPCT=	19-Inch Rack Mounting Brackets for 3560-CX and 2960-CX compact switches
RCKMNT-23-CMPCT=	23- and 24-Inch Rack Mounting Brackets for 3560-CX and 2960-CX compact switches
Cisco Catalyst 3560-CX Software Licenses	
Part Number	Description
L-C3560CX-RTU=	Cisco Catalyst 3560-CX IP Base to IP Services RTU electronic license

Cisco Catalyst 3560-CX Compact Switches

C3560CX-RTU=	Cisco Catalyst 3560-CX IP Base to IP Services RTU paper license
C3560CX-DNA-E-8=	Cisco DNA Essentials Subscription License for C3560CX 8 Port Switches
C3560CX-DNA-E-12=	Cisco DNA Essentials Subscription License for C3560CX 12 Port Switches
C3560CX-DNA-A-8=	Cisco DNA Advantage Subscription License for C3560CX 8 Port Switches
C3560CX-DNA-A-12=	Cisco DNA Advantage Subscription License for C3560CX 12 Port Switches
C3560CX-DNA-P-8=	Cisco DNA Premier Subscription License for C3560CX 8 Port Switches
C3560CX-DNA-P-12=	Cisco DNA Premier Subscription License for C3560CX 12 Port Switches
C3560CX2-DNAC1E=	Cisco DNAC1 Essential Subscription License for C3560CX Switches
C3560CX2-DNAC1A=	Cisco DNAC1 Advantage Subscription License for C3560CX Switches
C3560CX2-DNAC1P=	Cisco DNAC1 Premier Subscription License for C3560CX Switches
C2960CX-DNA-E-8=	Cisco DNA Essentials Subscription License for C2960CX Switches

Warranty Information

Cisco Catalyst 3560-CX and 2960-CX Series Switches come with an enhanced limited lifetime hardware warranty that includes 90 days of Cisco Technical Assistance Center (TAC) support and next-business-day hardware replacement free of charge (see Table 11 for details).

Table 11. Enhanced Limited Lifetime Hardware Warranty

	Cisco Enhanced Limited Lifetime Hardware Warranty
Device covered	Applies to Cisco Catalyst 3560-CX and 2960-CX Series compact switches.
Warranty duration	As long as the original customer owns the product.
EoL policy	In the event of discontinuance of product manufacture, Cisco warranty support is limited to 5 years from the announcement of discontinuance.
Hardware replacement	Cisco or its service center will use commercially reasonable efforts to ship a replacement for next business day delivery, where available. Otherwise, a replacement will be shipped within 10 working days after receipt of the RMA request. Actual delivery times might vary depending on customer location.
Effective date	Hardware warranty commences from the date of shipment to customer (and in case of resale by a Cisco reseller, not more than 90 days after original shipment by Cisco).
TAC support	Cisco will provide during business hours, 8 hours per day, 5 days per week basic configuration, diagnosis, and troubleshooting of device-level problems for up to a 90-day period from the date of shipment of the originally purchased Cisco Catalyst 2960 and 3560 product. This support does not include solution or network-level support beyond the specific device under consideration.
Cisco.com access	Warranty allows guest access only to Cisco.com.

Your formal warranty statement, including the warranty applicable to Cisco software, appears in the Cisco information packet that accompanies your Cisco product. We encourage you to review carefully the warranty statement shipped with your specific product before use. Cisco reserves the right to refund the purchase price as its exclusive warranty remedy.

Adding a Cisco technical services contract to your device coverage provides access to the Cisco Technical Assistance Center (TAC) beyond the 90-day period allowed by the warranty. It also can provide a variety of hardware replacement options to meet critical business needs, as well as updates for licensed premium Cisco IOS Software, and registered access to the extensive Cisco.com knowledge base and support tools.

For additional information about warranty terms, visit <https://www.cisco.com/go/warranty>.

Cisco and Partner Services

Enable the innovative, secure, intelligent edge using personalized services from Cisco and our partners. Through a discovery process that begins with understanding your business objectives, we help you integrate the next-generation Cisco Catalyst fixed switches into your architecture and incorporate network services onto those platforms. Sharing knowledge and leading practices, we support your success every step of the way as you deploy, absorb, manage, and scale new technology.

Choose from a flexible suite of support services (Table 12), designed to meet your business needs and help you maintain high-quality network performance while controlling operational costs.

Table 12. Technical Services Available for Cisco Catalyst 3560-CX and 2960-CX Series Compact Switches

Technical Services
Cisco SMARTnet® Service <ul style="list-style-type: none">• Around-the-clock, global access to the Cisco Technical Assistance Center (TAC)• Unrestricted access to the extensive Cisco.com knowledge base and tools• Next-business-day, 8x5x4, 24x7x4, and 24x7x2 advance hardware replacement and onsite parts replacement and installation available• Ongoing operating system software updates within the licensed feature set• Proactive diagnostics and real-time alerts on Smart Call Home-enabled devices
Cisco Smart Foundation Service <ul style="list-style-type: none">• Next business day advance hardware replacement as available• Business hours access to SMB TAC (access levels vary by region)• Access to Cisco.com SMB knowledge base• Online technical resources through Smart Foundation Portal• Operating system software bug fixes and patches
Cisco Focused Technical Support Services <ul style="list-style-type: none">• 3 levels of premium, high-touch services are available• Cisco High-Touch Operations Management Service• Cisco High-Touch Technical Support Service• Cisco High-Touch Engineering Service• Valid Cisco SMARTnet or SP Base contracts on all network equipment are required

Cisco Capital

Flexible Payment Solutions to Help You Achieve Your Objectives

Cisco Capital makes it easier to get the right technology to achieve your objectives, enable business transformation and help you stay competitive. We can help you reduce the total cost of ownership, conserve capital, and accelerate growth. In more than 100 countries, our flexible payment solutions can help you acquire hardware, software, services and complementary third-party equipment in easy, predictable payments. [Learn more](#).

Learn More

For more information, contact your Cisco sales account rep or visit <https://www.cisco.com/go/compactswitches>.

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DM-NUX-L2 and DM-NUX-R2

DM NUX USB over Network with Routing



- Provide reliable, high-speed USB signal extension for most USB 1.1 or 2.0 devices¹
- Compatible with DM NUX Wall Plates (DM-NUX-L2-1G and DM-NUX-R2-1G)
- Compatible with DM NVX[®] endpoints that support USB 2.0 signal extension
- Support Virtual Hub capabilities with up to five DM-NUX-R2 endpoints
- Enable USB signal routing under the control of a Crestron[®] control system or DigitalMedia[™] system²
- Plug-and-play compatible with most types of USB 1.1 and 2.0 devices and hosts¹
- No drivers required with Windows[®], macOS[®], or Linux[®] operating systems¹
- Transport USB over Ethernet or CAT5e (or better) at speeds up to 480 Mbps
- Mass Storage Acceleration maximizes USB 2.0 bulk transfer speeds
- DM-NUX-R2 provides 4 USB Type A ports, expandable using up to 4 USB hubs (not included)
- Expand upon the USB-HID routing capabilities of a DigitalMedia[™] system without additional wiring
- Add USB host or device ports to any DM[®] transmitter, receiver, or switcher
- USB local (host) or remote (device) endpoint sold individually for maximum flexibility

The DM NUX USB over Network with Routing ([DM-NUX-L2](#) and [DM-NUX-R2](#)) deliver reliable, high-speed USB signal extension and routing for USB 1.0, 1.1, and 2.0 devices throughout a home, business, or campus for distances up to 330 ft (100 m).² Two types of USB endpoints are available:

- DM-NUX-L2 - Provides connectivity for a single USB host (computer, media server, codec, etc.)
- DM-NUX-R2 - Provides connectivity for up to four USB devices (keyboards, whiteboards, mobile devices, etc.) at one location

USB Signal Routing

When integrated with a DigitalMedia[™] system, the USB endpoints provide seamless routing of USB signals alongside video and audio. The USB endpoints can connect directly to a DM[®] transmitter, DM receiver, or Ethernet network via CAT5e (or better) cable.² From any room with a video display, you can switch between several computers, media servers, and game consoles anywhere in the building and control each one using a mouse and keyboard, game controller, or electronic whiteboard.¹

Virtual Hub

Using Virtual Hub technology, five DM-NUX-R2 endpoints may simultaneously be connected to a single DM-NUX-L2 endpoint. Creating this virtual hub allows numerous USB devices to control a single host device (such as a PC).¹ The USB signals are transported over the local network and managed through a Crestron control system.

USB HID Connectivity

The USB endpoints expand on DigitalMedia's built-in USB HID routing abilities, adding enhanced USB connectivity to DM transmitters, receivers, or switchers without requiring any additional wiring. Simply connect a USB endpoint to the LAN port of a DM transmitter or receiver, or to a port on the local area network.²

Point-to-Point Connectivity

The USB endpoints may be used to provide simple, point-to-point USB signal extension, either over an Ethernet LAN or a dedicated CAT5e (or better) cable.² At least one remote (device) endpoint (DM-NUX-R2) and one local (host) endpoint (DM-NUX-L2) are required to form a working system. The endpoints are sold individually to accommodate any system configuration.

NOTE: For alternative point-to-point USB signal extension, refer to the USB over Category Cable Extender Wall Plates ([USB-EXT-2-REMOTE-1G](#) and [USB-EXT-2-LOCAL-1G](#)) or the USB over Category Cable Extenders ([USB-EXT-3-KIT](#)).

Endpoint Compatibility

The DM-NUX-L2 and DM-NUX-R2 are compatible with the [DM-NUX-L2-1G](#) and [DM-NUX-R2-1G](#) wallplates and DM NVX[®] endpoints that support USB 2.0 signal extension.

DM-NUX-L2 and DM-NUX-R2

DM NUX USB over Network with Routing

Specifications

Communications

Ethernet	100Base-T or 1000Base-T, Layer 2
Link Speed	Up to 480 Mbps, dependent upon network speed and quality
USB Device Support	USB 1.0/1.1 and 2.0 with Hub compatible including isochronous devices ¹
USB Hub Support	Any signal chain may include up to 4 USB hubs plus one DM-NUX-L2 and one DM-NUX-R2 ¹
Maximum USB Devices	30 USB devices, or 4 USB hubs with 26 USB devices
Host Computer OS Support	Windows®, macOS®, and Linux® operating systems
USB Throughput	USB 2.0 up to 480 Mbps; USB 1.1 up to 12 Mbps

Connectors – Local endpoint

Link	(1) 8-pin RJ-45 connector, female; Connects to an Ethernet network or directly to a Remote endpoint ³
USB	(1) USB Type B connector, female (USB B to A cable included) USB 2.0 device port for connection to the USB host computer, media server, game console, annotator, codec, etc.
Config	For factory use only

Connectors – Remote endpoint

24V 1A	(1) 2.1 x 5.5 mm DC power connector; 24VDC power input; PW-2407WU power pack included
Link	(1) 8-pin RJ-45 connector, female; Connects to an Ethernet network or to the Link port on the Local endpoint ³
USB	(4) USB Type A connectors, female; USB 2.0 host ports for connection of USB devices such as mice, keyboards, and other USB devices ¹ ; Available USB Power: Up to 600 mA at each port concurrently; Up to 1A when two or fewer ports are in use
Config	For factory use only

Indicators – Local endpoint

Activity	(1) Amber LED, indicates data activity over the Link connection
Host	(1) Green LED, indicates a valid connection to the USB host
Link	(1) Green LED, indicates a valid Link connection to the Remote endpoint
Pair	(1) Pushbutton, used to establish a connection with a Remote endpoint
Power	(1) Blue LED, indicates operating power is supplied via the USB host

Indicators – Remote endpoint

Activity	(1) Amber LED, indicates data activity over the Link connection
Host	(1) Green LED, indicates a valid connection to the USB host at the Local endpoint
Link	(1) Green LED, indicates a valid Link connection to the Local endpoint
Pair	(1) Pushbutton, used to establish a connection with a Local endpoint
Power	(1) Blue LED, indicates operating power is supplied via the power supply

Power

DM-NUX-L2	USB powered via the USB host interface
DM-NUX-R2	Input: 100-240VAC, 50/60 Hz; Output: 0.75A @ 24VDC; PW-2407WU power pack included

Environmental

Temperature	32° to 122°F (0° to 50°C)
Humidity	20% to 80% RH (non-condensing)

Enclosure

Construction	Black anodized aluminum
Mounting	Freestanding or surface mount (mounting bracket included)

Dimensions

Height	1.02 in. (26 mm)
Width	3.94 in. (100 mm)
Depth	2.99 in. (76 mm)

Compliance

Regulatory Model: M201947001
CE, IC, FCC Part 15 Class B digital device

DM-NUX-L2 and DM-NUX-R2

DM NUX USB over Network with Routing

Models

DM-NUX-L2

DM NUX USB over Network with Routing, Local

DM-NUX-R2

DM NUX USB over Network with Routing, Remote

Available Accessories

For a list of available accessories, visit either the [DM-NUX-L2](#) or [DM-NUX-R2](#) product page.

Notes:

1. The USB endpoint is engineered to deliver maximum compatibility with the widest possible range of devices. Crestron does not guarantee that all USB devices or hosts are compatible with the USB endpoint. Certain USB devices may require additional driver installation if not directly supported by the computer's operating system. A web camera may not be used when five or more DM-NUX-R2 endpoints are paired. Video from two cameras connected to a DM-NUX-R2 may not be viewed on different applications simultaneously. Any 1.0/1.1 devices need a USB hub.
2. All USB endpoints must be on the same layer 2 domain as the control system or DigitalMedia system. Follow accepted guidelines for proper installation and configuration of the local area network to ensure optimum performance.
3. For a direct link connection (not on a network) between the Local and Remote endpoints, use high quality, solid core CAT5e (or better) unshielded twisted pair (UTP) cable. To comply with the European Directive (CE), Crestron recommends using high-quality, solid core CAT5e (or better) shielded twisted pair (STP) cable. If connecting either endpoint through a wall jack, a stranded patch cord may be used. The maximum aggregate cable length is 330 ft (100 m) between units. The minimum cable length is 6 ft (1.8 m).

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or by calling 855-263-8754.

This product is covered under the Crestron standard limited warranty. Refer to www.crestron.com/warranty for full details.

The specific patents that cover Crestron products are listed online at patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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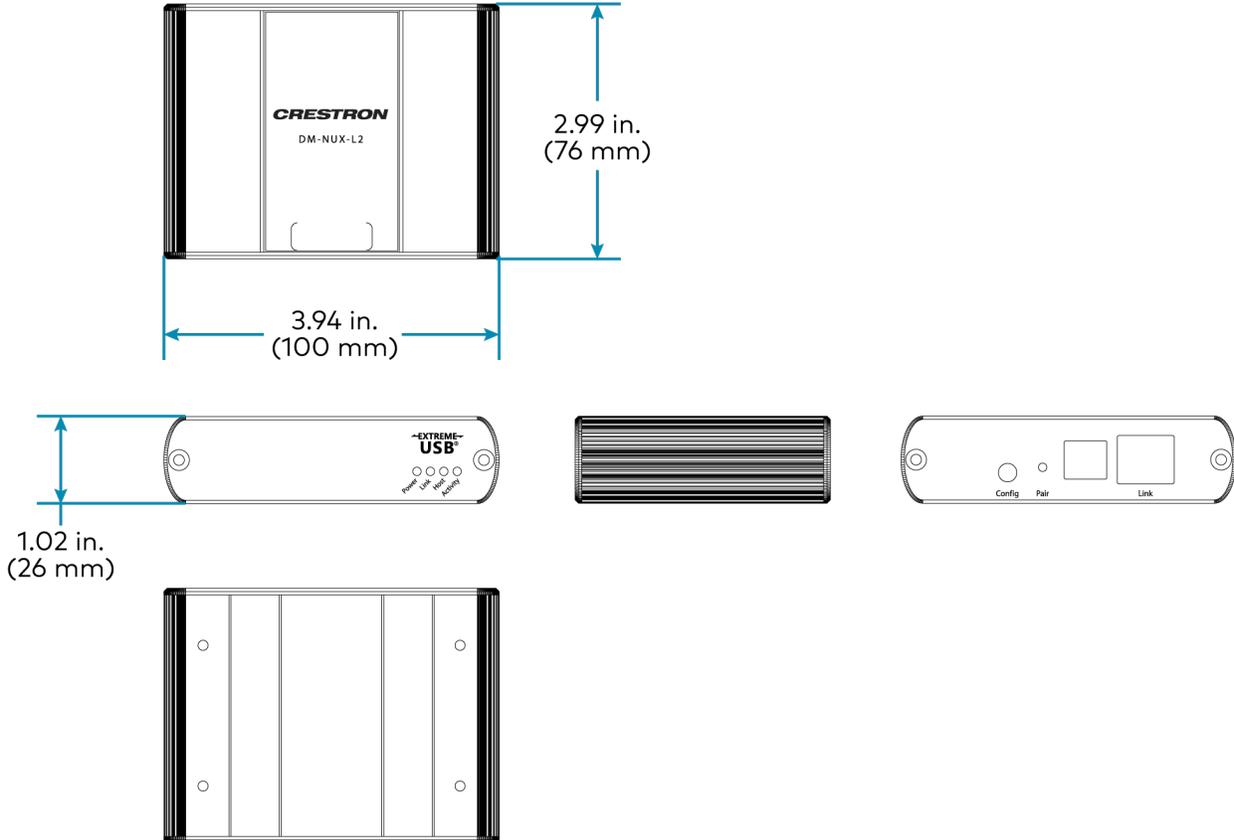
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DM-NUX-L2 and DM-NUX-R2

DM NUX USB over Network with Routing

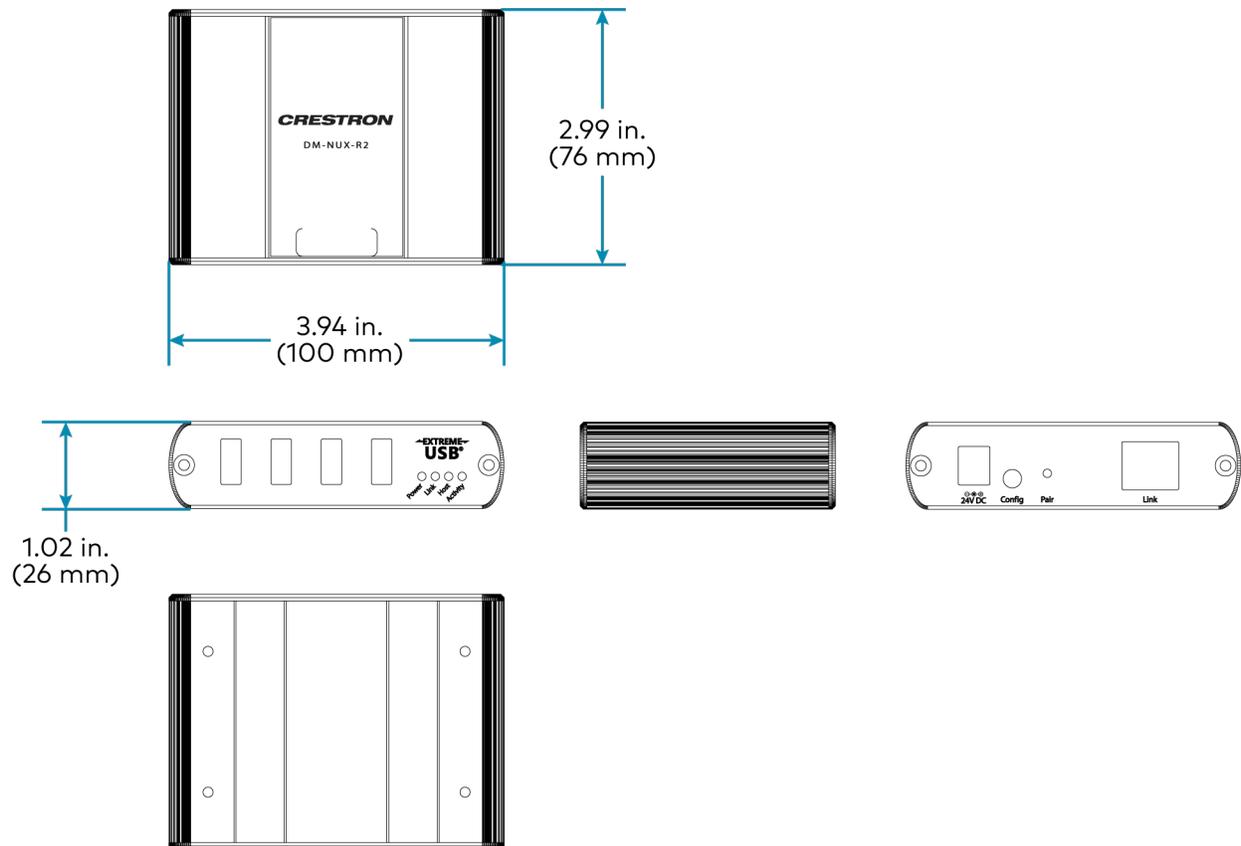
DM-NUX-L2



DM-NUX-L2 and DM-NUX-R2

DM NUX USB over Network with Routing

DM-NUX-R2



4-Series™ Control System



- Compact 4-Series™ control system with 1 GB SDRAM and 8 GB flash memory
- Embedded 4-Series multicore CPU processor
- iPhone®, iPad®, and Android™ device control app support
- XPanel computer and web based control
- Modular programming architecture (optional)
- Onboard IR/serial, COM, digital input, relay, Cresnet® network, and Ethernet control ports
- USB OTG (On-the-Go) port
- Crestron Fusion® software room monitoring and scheduling
- XiO Cloud® service provisioning and management
- Enterprise-class network security and authentication
- SNMP V3 remote IT management support
- Native BACnet network/IP support
- Installer setup via software, web browser, or cloud
- IPv6 ready
- Integrates with Apple® HomeKit® technology
- PoE (Power over Ethernet) network power
- Compact, stackable IFE micro form factor
- Surface or DIN rail mountable
- Available rack mount and pole mount options

The Crestron® RMC4 provides a secure, high-performance, cost-effective control processor and interface for controlling and monitoring for a single display device, a small AV system, lighting and shading, climate control, security, energy management, and many other specialized applications. A small form factor allows the RMC4 to be placed just about anywhere, with the option to attach it to a flat surface or DIN rail using the included mounting bracket. The RMC4 can fit easily behind a video display or above a projector, and provides enough control ports to control the display device along with a screen or lift.

4-Series Control Engine

4-Series™ control systems come equipped with an upgraded multicore CPU, delivering a sizable speed and performance increase compared to all Crestron 3-Series® control processors. The improved performance allows 4-Series control systems to handle the increasing demands of an advanced automated system. Crestron 4-Series delivers a dynamic and secure control system platform capable of managing a room full of disparate technologies.

Reliable networking and IP control afford seamless integration with other systems and devices, with add-on control capability using Crestron touch screens, wireless remotes, and mobile device apps, as well as remote management through Crestron Fusion® software and the XiO Cloud® service.

Modular Programming Architecture

The RMC4 is designed to run a single program out of the box. The optional modular programming architecture (MPA) add-on allows the RMC4 to run up to ten programs simultaneously.¹ Programmers can develop and run independent, device-specific programs, enabling each program to be optimized for a specific function and allowing for changes to be made to one program without affecting the whole system.

Onboard Control Ports

Through a full complement of onboard control ports, the RMC4 can be integrated with a wide variety of audio, video, lighting, motorized shades, thermostats, door locks, sensors, security systems, and other equipment.

- Ethernet provides an interface for connecting to the building network and controlling Crestron AV switchers, audio processors, power controllers, and other IP controllable equipment.
- Cresnet® network connectivity provides support for Crestron lighting dimmers, motorized shades, sensors, thermostats, keypads, and more.²
- Onboard RS-232, IR, relay, and digital input control ports enable direct integration with all types of third-party equipment.

Expanded connectivity can be provided to the RMC4 via Crestron [control port expansion modules](#), [Ethernet to Cresnet bridges](#), [wired Ethernet I/O extenders](#), or [Wi-Fi® network I/O extenders](#) (all sold separately).

Crestron Fusion Room Monitoring and Scheduling

Crestron Fusion provides an integrated platform for creating smart buildings that save energy and enhance worker productivity. As part of a complete managed network in a corporate enterprise, college campus, convention center, or any other facility, the RMC4 works with Crestron Fusion to enable remote scheduling, monitoring, and control of rooms and technology from a central help desk or mobile app. It also enables organizations to reduce energy consumption by tracking real-time usage and automating control of AV, lighting, shades, and HVAC. For more information about Crestron Fusion, visit www.crestron.com/fusion.

4-Series™ Control System

XiO Cloud Provisioning and Management

4-Series control systems leverage the power and flexibility of XiO Cloud services, enabling users to remotely provision, monitor, and manage supported Crestron and third-party devices across an enterprise network. XiO Cloud can be used to configure and load programs to the control system before it is received, making the control system fully functional as soon as it is connected to the network. XiO Cloud is built on the Microsoft® Azure® software platform and utilizes Microsoft's industry leading Azure IoT Hub technology. XiO Cloud enables installers and IT managers to deploy and manage thousands of devices in the time it previously took to manage just one. Unlike other virtual machine based cloud solutions, Azure services provide unlimited scalability to suit the ever growing needs of an enterprise. For more information, visit www.crestron.com/xiocloud.

Enhanced Enterprise-Grade Security

The RMC4 is an enterprise-class control processor that can be deployed across hundreds of spaces and set up easily using a web browser, Crestron Toolbox™ software, or Crestron XiO Cloud. It employs standard network security protocols, including 802.1X network access control, Active Directory® service authentication, SSH, TLS, and HTTPS to ensure reliability and compliance with your organization's IT policies.

The RMC4 is configured to meet Crestron's enhanced security standards right out of the box. The RMC4 ships with authentication enabled and requires that an administrator account be created before access is granted to device configuration and control interfaces.

SNMP V3 Support

Built-in SNMP V3 support enables integration with third-party IT management software, allowing network administrators to manage and control Crestron systems on the network in an IT-friendly format.

BACnet Support

Native support for the BACnet communication protocol provides a direct interface to third-party building management systems over Ethernet, simplifying integration with HVAC, security, and other systems. Using BACnet, each system runs independently but communicates together on one platform.³

Apple HomeKit Integration

The RMC4 supports integration with an Apple® HomeKit® technology system. Once the RMC4 is paired with a HomeKit system via [SIMPL](#) programming, a Crestron [TSR-310](#) can be used to control supported Apple devices. A pairing QR code is affixed to the RMC4 that makes it easy to pair the control system directly to the Apple Home app.⁴

PoE Network Powered

Using PoE technology, the RMC4 gets its operating power directly through the LAN wiring, eliminating the need for a local power supply or dedicated power wiring. A PoE injector ([PWE-4803RU](#)) simply connects in line with the LAN cable at a convenient location. Crestron PoE switches ([CEN-SW-POE-5](#) or [CEN-SWPOE-16](#)) may also be used to provide a total networking solution with built-in PoE. All PoE injectors and switches are sold separately.

Integrator Friendly Enclosure

The RMC4 features the Crestron IFE form factor, a compact Integrator Friendly Enclosure design that fits almost anywhere and enables a variety of installation options. Its shape allows multiple RMC4 and other IFE compliant devices to be stacked together. Using the included mounting bracket, it can be fastened to a flat surface or snapped onto a standard DIN rail. Rack mount and pole mount kits are also available (sold separately).

4-Series™ Control System

Specifications

Control Engine

Crestron® 4-Series™; real-time, preemptive multi-threaded/multitasking kernel; Transaction-Safe Extended FAT file system; supports up to 10 simultaneously running programs (license required¹)

Communications

Ethernet	100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, industry-standard TCP/IP stack, UDP/IP, CIP, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), FIPS 140-2 compliant encryption, IEEE 802.1xX, SNMP, BACnet and IP ³ , IPv4 or IPv6, Active Directory® service authentication, HTTPS web server, HTTPS web browser setup and XiO Cloud® client, SMTP email client
Cresnet® Network	Cresnet master mode
USB	Supports computer console and USB mass storage class devices via the front panel USB OTG (On-the-Go) device port
RS-232/422/485	For 2-way device control and monitoring, supports RS-232, RS-422, or RS-485 up to 115.2k baud with hardware and software handshaking
IR/Serial	Supports 1-way device control via infrared up to 1.2 MHz or serial TTL/RS-232 (0–5 V) up to 115.2k baud

Memory

SDRAM	1 GB
Flash	8 GB
External Storage	Supports USB storage devices up to 1 TB

Connectors

USB-OTG	(1) USB Type Micro-AB female; USB OTG port for computer console and USB mass storage devices
LAN PoE	(1) 8-pin RJ-45 connector, female; 100BASE-T Ethernet port; PoE (Power over Ethernet) PD (Powered Device) port
NET	(1) 3-pin 3.5 mm detachable terminal block; Cresnet master port; Provides data only (no power) ²

DIGITAL IN 1–2

(1) 3-pin 3.5 mm detachable terminal block; Comprises (2) digital inputs (referenced to GND); Voltage Range: Rated for 0–24 VDC; Input Impedance: 2.2k Ω pulled up to 5 V; Logic Threshold: >2.0 V low/0 and <1.1 V high/1

RELAY 1–2

(1) 4-pin 3.5 mm detachable terminal block; Comprises (2) normally open, isolated relays; Rated 1 A, 30 VAC/VDC; MOV arc suppression across contacts

IR 1–2

(1) 4-pin 3.5 mm detachable terminal block; Comprises (2) IR output ports; IR output up to 1.2 MHz; 1-way serial TTL/RS-232 (0–5 V) up to 115.2k baud; IRP2 IR emitters sold separately

COM

(1) 5-pin 3.5 mm detachable terminal block; Bidirectional RS-232/422/485 port; Up to 115.2k baud; Hardware and software handshaking support

G

(1) 6-32 screw; Chassis ground lug

Controls and Indicators

PWR

(1) Bicolor green/amber LED, indicates operating power is present; Amber indicates that the device is booting and is not yet ready to operate; Green indicates that the device is ready to operate

NET

(1) Amber LED, indicates communication with Cresnet devices

MSG

(1) Red LED, indicates control processor has generated an error message

HW-R

(1) Recessed push button, initiates hardware reset

SW-R

(1) Recessed push button, initiates software reset

LAN PoE

(1) Green and (1) Amber LEDs; Green LED indicates Ethernet link status and connection speed; Amber LED indicates Ethernet activity

4-Series™ Control System

Power

Power over Ethernet	IEEE 802.3at Type 1 (802.3af compatible) Class 0 (12.95 W) PoE Powered Device
Power Consumption	6.5 W

NOTE: The RMC4 does not use or supply any Cresnet power.

Environmental

Temperature	32 to 104 °F (0 to 40 °C)
Humidity	10% to 90% RH (noncondensing)
Heat Dissipation	22 BTU/hr

Construction

Enclosure	IFE micro form factor, black and blue plastic
Mounting	Freestanding, stackable, surface mount, or 35 mm DIN EN 60715 rail mount; Occupies 8 DIN module spaces (144 mm); Surface/DIN rail mounting bracket included, optional rack mount and pole kits sold separately

Dimensions

Height	1.35 in. (34 mm); 1.77 in. (45 mm) with bracket
Width	5.04 in. (128 mm); 5.36 in. (136 mm) with bracket
Depth	2.86 in. (73 mm); 3.33 in. (85 mm) with bracket

Weight

6.4 oz (180 g)

Compliance

Regulatory Model: RMC4;
UL® Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

Model

RMC4
4-Series™ Control System

Available Accessories

For supported accessories, visit the RMC4 product page at www.crestron.com.

Notes:

1. Enabling Modular Programming Architecture (MPA) on the RMC4 requires the purchase of one [SW-RMC3-10PROG](#) license. The license enables support for running up to 10 simultaneous programs on a single RMC4. The license is not required if only one program is run on the RMC4. To obtain a license for the RMC4, complete the ["Request for SW-RMC3-10PROG License" form](#). For questions, contact license@crestron.com.
2. The NET (Cresnet) port on the RMC4 is a 3-pin connector which provides connectivity for Cresnet data only, not power. The Cresnet power conductor does not terminate to the RMC. An external Cresnet power supply is required to provide power for Cresnet devices.
3. A BACnet and IP license is required. A free license is available to support up to 50 BACnet objects on a single 4-Series control system. Enabling support for more than 50 BACnet objects requires the purchase of one [SW-3SERIES-BACNET-50+](#) license. The RMC4 supports a maximum of 500 BACnet objects when dedicated for BACnet use only. Actual capabilities are contingent upon the overall program size and complexity. To obtain the license, visit www.crestron.com/bacnetlicense.
4. This feature is only available when using the TSR-310. Other Crestron touch screens, handheld remotes, and keypads are not supported. For these interfaces, traditional IR or CEC control must be used to control supported Apple devices.

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or by calling 855-263-8754.

This product is covered under the Crestron standard limited warranty. Refer to www.crestron.com/warranty for full details.

The specific patents that cover Crestron products are listed online at patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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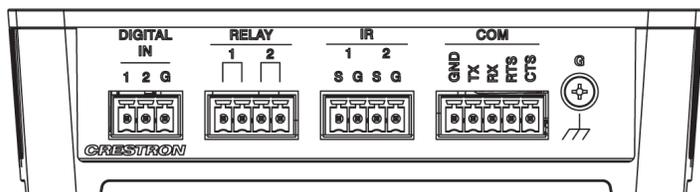
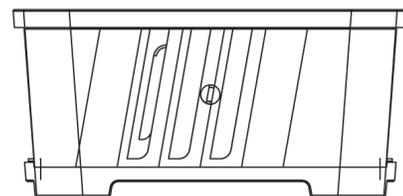
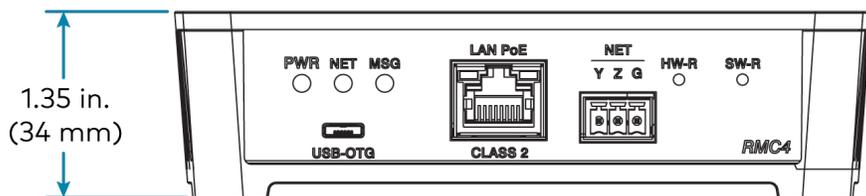
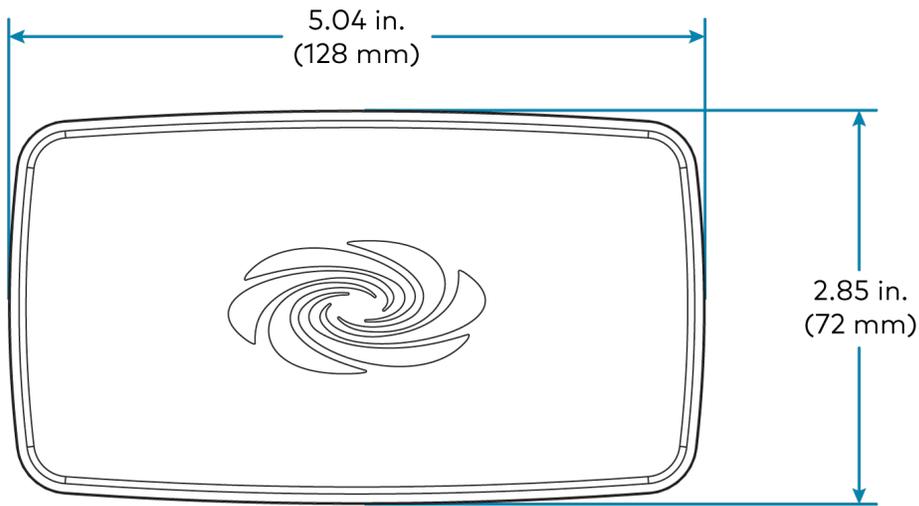
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Rev 05/28/21

RMC4

4-Series™ Control System



UC-CX100-T

Crestron Flex Advanced Video Conference System Integrator Kit with ASUS® Mini PC for Microsoft Teams® Rooms



- *Confferencing integration solution for Microsoft Teams® Rooms software*
- *Present, call, conference, and collaborate using your own device's UC conference platform (BYOD) or the native Microsoft Teams® Rooms platform*
- *Native Microsoft Teams® Rooms touch screen UI provides a consistent, simple user experience with one-touch meeting joins*
- *Complete kit contains a 10.1 in. tabletop touch screen, a UC presentation transmitter, and UC bracket assembly*
- *Optional integration with Crestron® control systems*
- *Direct connection option between UC Engine and tabletop touch screen for simple installation and configuration*
- *Network management and provisioning, system alerts, and tabletop touch screen pairing to the system's UC Engine through the XiO Cloud® service*
- *Premium-level support with Crestron Flex Care (optional)*
- *Enterprise-grade security - connects and communicates securely over any enterprise or SMB network*
- *Supports single or dual video displays (not included)*

The UC-CX100-T Crestron Flex integrator kit provides a customizable video conference solution for use with Microsoft Teams® Rooms software. It supports single or dual video displays¹ (not included) and features a UC presentation

transmitter, a tabletop touch screen and a UC bracket assembly.

Native Microsoft Teams® Rooms Experience

The UC-CX100-T system brings the full Microsoft Teams Rooms UC experience to any meeting space in an enterprise or SMB facility, whether implementing a cloud based Microsoft Teams Rooms deployment, on-premises Skype® for Business software, or a hybrid of the two.

Custom Room Integration

The UC-CX100-T system provides the essential components needed to design a fully custom video conferencing space using your choice of display devices, cameras, speakers, microphones, and other AV equipment. Any Microsoft Teams software compliant USB camera and USB audio conferencing interface (or speakerphone) may be used.

Intuitive User Interface

With a large 10.1 in. (257 mm) capacitive touch screen display, the Crestron® tabletop touch screen ([TS-1070](#)) provides superior conferencing control in meeting rooms, huddle spaces, and executive offices. The touch screen also offers optional control of room lighting, shades, thermostats, and other equipment.²

Simplified Deployment

The UC Bracket Assembly provides preassembled components on one ready-to-mount bracket to simplify installation. The assembly can be mounted on a wall, or it can be attached to the rear of the display device. Crestron's direct connection method further simplifies installation with a single connection from the tabletop touch screen to the UC Bracket Assembly.³

Crestron Control System Integration

The UC-CX100-T integrates with a Crestron control system to enable touch screen control of room lighting, motorized window shades, climate control, AV, and other amenities.²

Bring Your Own Device (BYOD)

Conference room visitors can connect their laptop to the Crestron Flex system to use their own UC conference platform. The UC Presentation Transmitter (UC-PR) switches to the connected laptop's UC platform and returns to the native platform when disconnected.⁴ For a list of BYOD tested devices on the UC-PR, refer to [OLH Article 1000889](#).

Enterprise-Grade Security

Crestron Flex is an enterprise-grade solution, engineered in partnership with Microsoft to integrate seamlessly into any Microsoft Teams Rooms or Skype® for Business software deployment. Crestron Flex is ideally equipped for mass deployment throughout any sized corporate, university, medical, military, or government facility.

UC-CX100-T

Crestron Flex Advanced Video Conference System Integrator Kit with ASUS® Mini PC for Microsoft Teams® Rooms

Easy Provisioning and Device Management

The XiO Cloud service is an IoT cloud based provisioning service (available separately) that enables installers and IT managers to easily deploy and manage thousands of devices. The XiO Cloud service provides system alerts, network management and provisioning, and the pairing of a control device to the system's UC Engine. System updates are controlled by Windows® software update.

Visit www.crestron.com/xiocloud for additional information.

Premium-Level Support

Crestron Flex Care is an optional subscription service that automatically renews annually, providing 24/7 live remote technical support, an extended five year warranty on Crestron® hardware, expedited advance replacements, and a discounted rate for on-site support.

Visit www.crestron.com/flexcare for additional information.

Dual Control Option

A TS- or TSW- 70 series 10.1 in. touch screen may be added to the solution as an additional control point for the Microsoft Teams Rooms environment.^{2,3}

Deployment Resources

View the [Crestron Flex Pre-Deployment Checklist](#) to help plan your Crestron Flex installation.

Specifications

Included Components

TS-1070-B-S	10.1 in. (257 mm) tabletop touch screen, black
UC-BRKT-260-P-T-ASSY	UC Bracket Assembly comprised of: <ul style="list-style-type: none">• UC Engine: ASUS Mini PC with Microsoft Teams video• ADPT-USB-ENET: USB-to-Ethernet Adapter• HD-CONV-USB-260: HDMI® over CAT5 to USB 3.0 converter for content ingest• Mounting hardware• EDID Passthroughs: (2) HDMI Female-to-Male
UC-PR	UC Presentation Transmitter
CBL-4K-DP-HD-6	DisplayPort™ to HDMI Cable, 6 ft (1.8 m)

[CBL-CAT5E-7](#)

Ethernet LAN cable for UC Engine, RJ-45-to-RJ-45, black, 7 ft (2.1 m)

[CBL-HD-6](#)

HDMI Interface Cable, 6 ft (1.8 m)

[DM-CBL-ULTRA-PC-20](#)

(2) Ethernet LAN cable, CAT6a, RJ-45-to-RJ-45, blue, 20 ft (6.1 m)

Tabletop Touch Screen

Touch Screen	10.1 in. (257 mm) diagonal capacitive multi-touch TFT active matrix color LCD, 1920 x 1200 pixels
UI	Microsoft Teams UI plus optional Crestron Smart Graphics® room control UI ²
Ethernet	100 Mbps, auto switching, auto negotiating, auto discovery, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), IEEE 802.1X, SNMP, IPv4 or IPv6, Active Directory® service authentication, HTTPS web browser setup, XiO Cloud® client, IEEE 802.3at compliant
Power over Ethernet	IEEE 802.3at Type 2 compliant PoE+ PD (Powered Device); Normally requests 15 W from an 802.3at Type 2 PSE with LLDP advanced power management; With room scheduling and USB enabled, requests 18 W from an 802.3at Type 2 PSE with LLDP; Requests 30 W (PoE+ Class 4) from an 802.3at Type 2 PSE without LLDP; Requests 15.4 W (PoE Class 0) from an 802.3af (or 802.3at Type 1) PSE
Power	Powered via PoE passthrough on the UC-PR
Construction	Plastic, smooth black finish, edge-to-edge glass with black surround
Dimensions	Height: 5.29 in. (134 mm) Width: 9.63 in. (245 mm) Depth: 4.67 in. (119 mm)
Weight	2.44 lb (1105 g)

UC Bracket Assembly

UC Engine	ASUS Mini PC, Intel Core® processor with Windows® 10 IoT Edition OS and 100/1000 Mbps Ethernet connectivity
UC Client	Microsoft Teams Rooms with Skype® for Business software functionality
Management Client	XiO Cloud Service

UC-CX100-T

Crestron Flex Advanced Video Conference System Integrator Kit with ASUS® Mini PC for Microsoft Teams® Rooms

Content Ingest	HDMI input via CAT5 to USB 3.0 converter (model HD-CONV-USB-260)
Display Output	Single or dual display support ¹
Display Output Resolution	1080p
Power	UC Engine: 65 W via external 100-240VAC, 50/60 Hz adapter (included); HD-CONV-USB-260: 24VDC via external 100-240VAC, 50/60 Hz power pack (included)
Construction	Metal mounting bracket, black, preassembled with UC Engine and CAT5 to USB 3.0 content ingest device (HD-CONV-USB-260)
Mounting	Surface wall mount behind the display device, or attach to the rear of the display device via the bolts attaching the display to a VESA® compliant display mount; Bracket includes mounting holes on both side edges, spaced 100, 200, and 300 mm vertically, to allow for attachment to either side of the display mounting plate
Dimensions	Height: 15.00 in. (381 mm) Width: 14.50 in. (368 mm) Depth: 1.72 in. (44 mm)
Weight	6.64 lb (3 kg)

UC Presentation Transmitter (UC-PR)⁴

Video Input Signal Types	HDMI, DisplayPort 1.2 via USB-C® port
Video Output Signal Types	HDMI over CAT5
Resolution	1080p
Video Content Protection	HDCP 1.4 and HDCP 2.2
Audio Input Signal Types	HDMI, DisplayPort 1.2 via USB-C port
Audio Output Signal Types	HDMI over CAT5
Communications	Ethernet: 100 Mbps, auto-switching, auto negotiating, auto-discovery HDMI over CAT5: HDCP, Ethernet HDMI: HDCP USB: USB 2.0 and USB 3.0

Connectors	LAN PoE: (1) 8-pin RJ-45 connector; ACC: (1) USB 3.0 Type B connector; For firmware loading only; USB A: (1) USB 2.0 Type A connector; USB B: (1) USB 2.0 Type B connector; USB: (1) USB 2.0 Type-C connector; HDMI IN: (1) HDMI Type A; To RX: (1) 8-pin RJ-45 connector; Power Jack: (1) DC power connector; LAN: (1) 8-pin RJ-45 connector; Ground: (1) 6-32 screw
Indicators	PWR: (1) Green LED, indicates operating power supplied via power supply Ethernet: (2) LEDs on To RX port; Green indicates Ethernet link status; Amber indicates Ethernet activity
Power Supply	24VDC, 6A, 100-240VAC
Device Charging	Up to 60 W charging for devices connected via USB-C port
Construction	Metal, black finish, integral mounting flanges; Vented top, front, bottom, and sides
Mounting	Surface mount for mounting under table; Attaches to a single rack rail
Dimensions	Height: 1.58 in. (40 mm) Width: 9.25 in. (235 mm) Depth: 8.20 in. (208 mm)

Model

UC-CX100-T

Crestron Flex Advanced Video Conference System Integrator Kit with ASUS® Mini PC for Microsoft Teams® Rooms

Available Accessories

For a list of available accessories, visit the [UC-CX100-T](#) product page.

UC-CX100-T

Crestron Flex Advanced Video Conference System Integrator Kit with ASUS® Mini PC for Microsoft Teams® Rooms

Notes:

1. Display must support "Wake on Sync" and "Sleep on No Sync" functionality. Consult the display manufacturer's specifications or internal settings of the specific display.
2. Room control capability (lighting, shades, thermostats, etc.) requires additional equipment and commissioning to be provided by a Crestron authorized integrator and/or programmer. Additional costs may apply.
3. Only one control device may be connected via direct connection method.
4. The UC-PR uses a USB-C 2.0 connection to provide content sharing, BYOD support, and charging for a user's device. Because USB-C supports multiple functions, device compatibility often varies. While some devices can accept power and data through the same USB-C connection, others cannot. The USB-C port on the UC-PR (labelled "USB") uses DisplayPort alternate mode for transporting video signals. Consult the connected device's user manual or manufacturer to ensure that the device supports DisplayPort alternate mode. Some devices that support DisplayPort alternate mode may not support device charging. For a list of tested devices, refer to [OLH Article 1000889](#). USB-C transfer speeds may vary based on the connected device's processing speed, system configuration, the operating environment, and/or other factors. If the user's device does not support USB-C, then a combination of HDMI and USB B may be used for content sharing or BYOD functionality as described in the [UC-CX100-T Quick Start guide](#) (Doc. 8883).

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or by calling 855-263-8754.

This product is covered under the Crestron standard limited warranty. Refer to www.crestron.com/warranty for full details.

The specific patents that cover Crestron products are listed online at patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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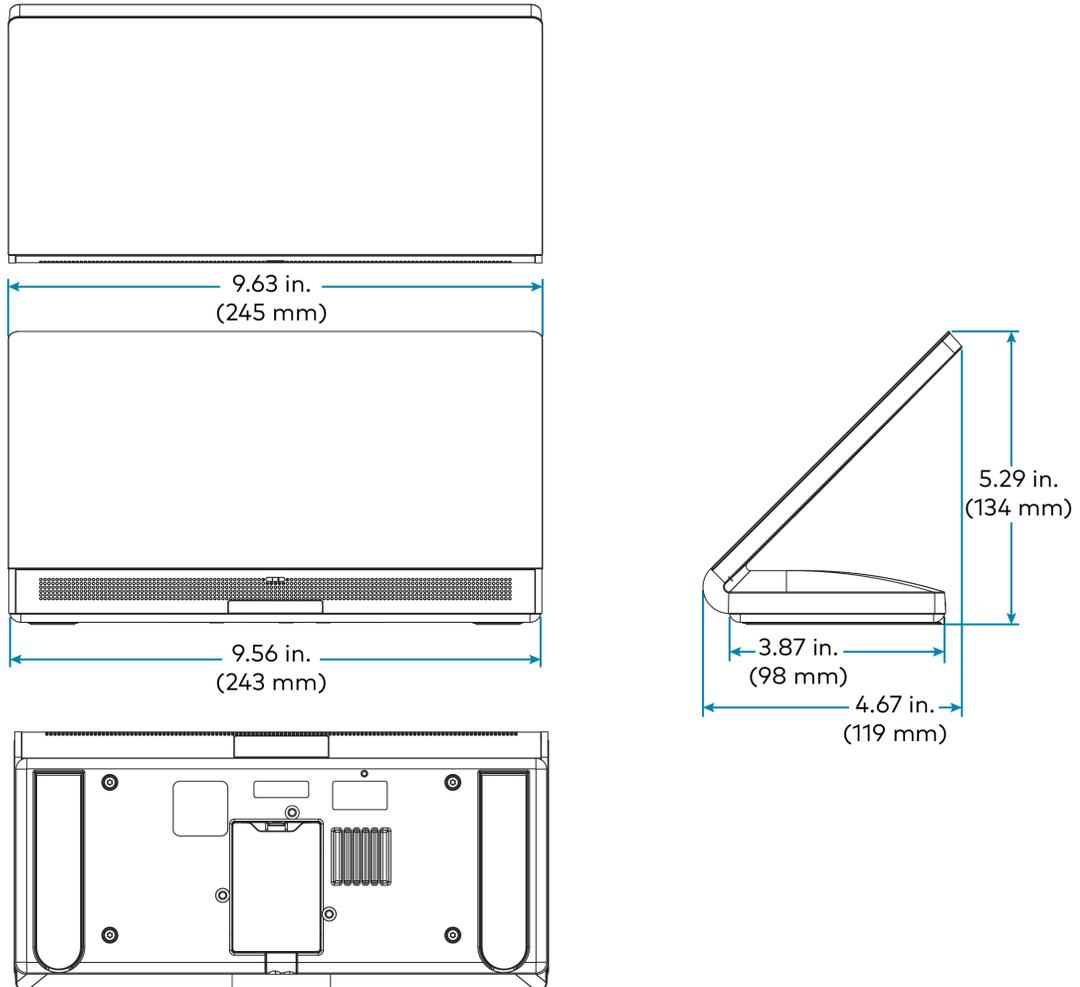
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UC-CX100-T

Crestron Flex Advanced Video Conference System Integrator Kit with ASUS® Mini PC for Microsoft Teams® Rooms

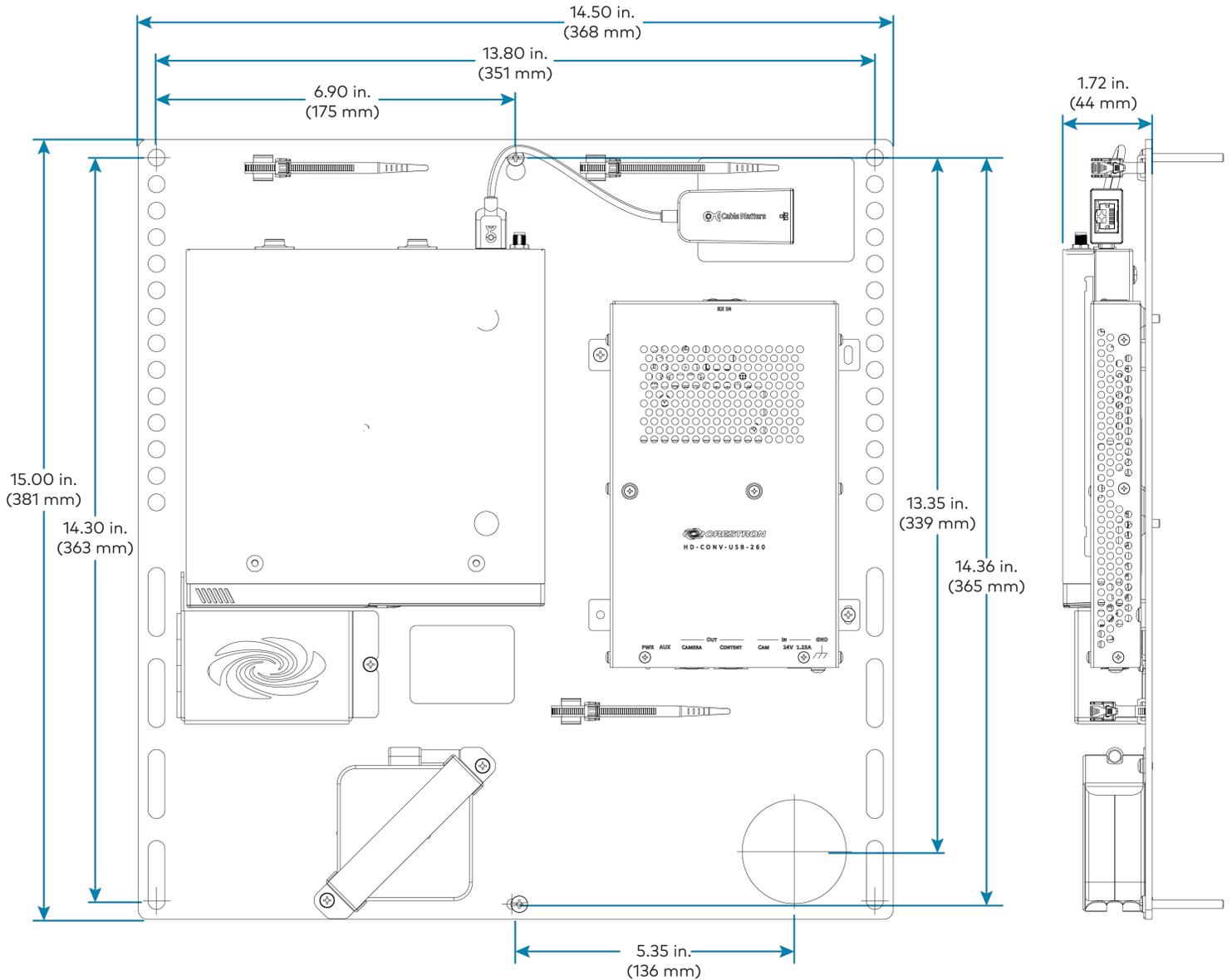
Touch Screen (TS-1070-B-S)



UC-CX100-T

Crestron Flex Advanced Video Conference System Integrator Kit with ASUS® Mini PC for Microsoft Teams® Rooms

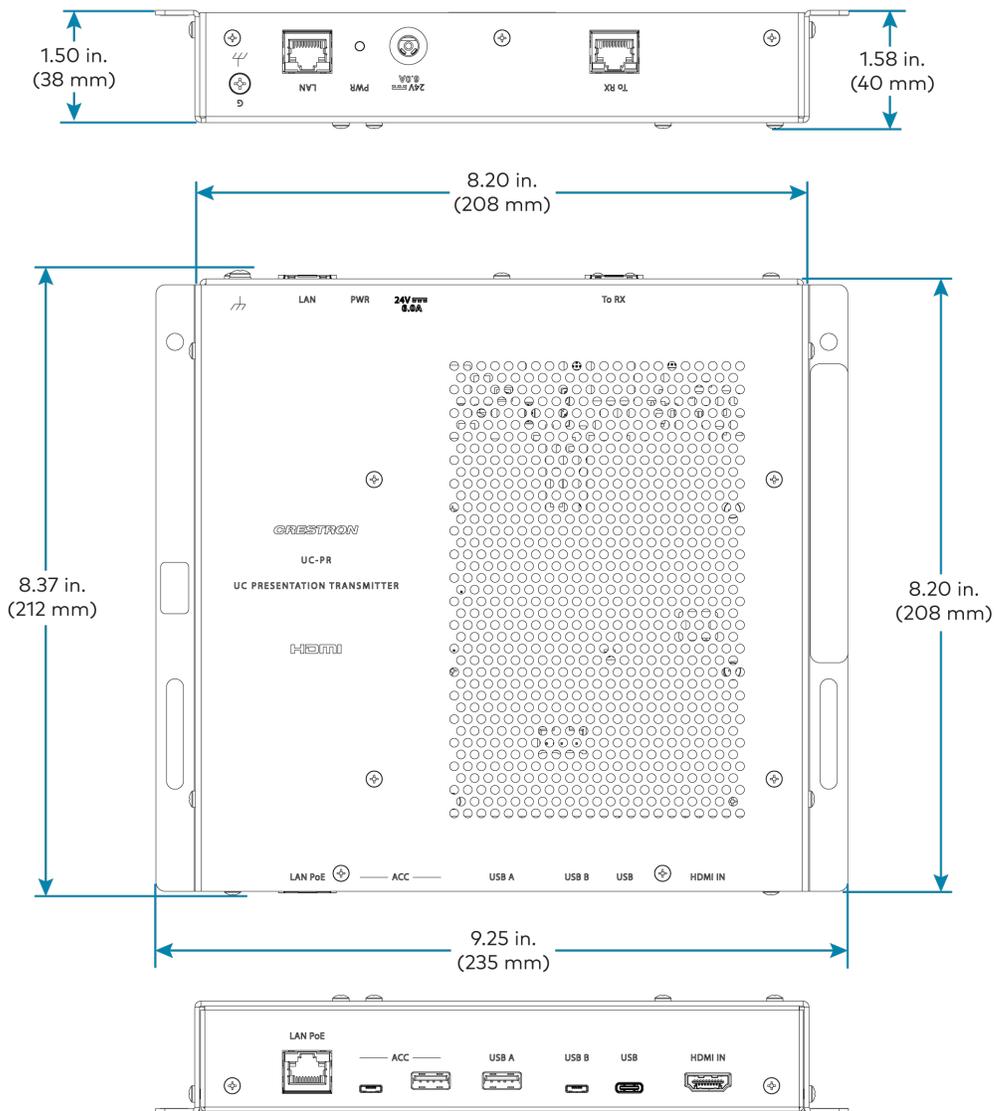
UC Bracket Assembly (UC-BRKT-260-P-T-ASSY)



UC-CX100-T

Crestron Flex Advanced Video Conference System Integrator Kit with ASUS® Mini PC for Microsoft Teams® Rooms

UC Presentation Transmitter (UC-PR)



UC-MMX30-T

Crestron Flex Advanced Tabletop Small Room Video Conference System with ASUS® Mini PC for Microsoft Teams® Rooms



- *Tabletop video conferencing solution for Microsoft Teams® Rooms*
- *Present, call, conference, and collaborate using your own device's UC conference platform (BYOD) or the native Microsoft Teams® Rooms platform*
- *Native Microsoft Teams® Rooms touch screen UI provides a consistent, simple user experience with one-touch meeting joins*
- *Complete kit contains a Crestron Flex tabletop conference device, collaboration camera, UC bracket assembly, UC presentation transmitter, PoE injector, and cables — just add a display and mount*
- *Easy to specify and install — no custom design, programming, or software installation required*
- *Optional integration with Crestron® control systems*
- *Direct connection option between UC Engine and Crestron Flex tabletop conference device for simple installation and configuration*
- *Network management and provisioning, system alerts, and Crestron Flex tabletop conference device pairing to the system's UC Engine through the XiO Cloud® service*
- *Premium-level support with Crestron Flex Care (optional)*
- *Enterprise-grade security - connects and communicates securely over any enterprise or SMB network*
- *Supports single or dual video displays (not included)*

The UC-MMX30-T Crestron Flex advanced tabletop conferencing system provides a small room video conference solution for use with Microsoft Teams® Rooms software. It supports single or dual video displays¹ (not included) and features a Crestron Flex tabletop conference device, collaboration camera, UC bracket assembly, UC presentation transmitter, PoE Injector, and cables.

Native Microsoft Teams® Rooms Experience

The UC-MMX30-T system brings the full Microsoft Teams Rooms UC experience to any meeting space in an enterprise or SMB facility.

Intuitive User Interface with Impressive Audio

With a large 7 in. HD color touch screen and an integrated AEC-enabled USB speakerphone that affords full-duplex wideband audio performance, the Crestron Flex Tabletop Conference device (UC-2-T-V) provides a superior conferencing and collaboration experience for meeting rooms, huddle spaces, and executive offices.

Simplified Deployment

The UC Bracket Assembly provides preassembled components on one ready-to-mount bracket to simplify installation. The assembly can be mounted on a wall, or it can be attached to the rear of the display device. Crestron's direct connection method further simplifies installation with a single connection from the Crestron Flex tabletop conference device to the UC Bracket Assembly.²

High-Definition Video Conferencing

The included collaboration camera (CCS-CAM-USB-F-400) features an ultra wide-angle 150° diagonal field of view to capture an entire conference room in Full HD 1080p video resolution. High precision aspherical optics, 12 MP CMOS sensor, and advanced video processing ensure a clear video image free from light or noise artifacts. Genius Framing digital autozoom detects the people in the room and frames them for an optimal view.

Crestron Control System Integration

The UC-MMX30-T integrates with a Crestron control system to enable touch screen control of room lighting, motorized window shades, climate control, AV, and other amenities.³

Bring Your Own Device (BYOD)

Conference room visitors can connect their laptop to the Crestron Flex system to use their own UC conference platform. The UC Presentation Transmitter (UC-PR) switches to the connected laptop's UC platform and returns to the native platform when disconnected.⁴ For a list of BYOD tested devices on the UC-PR, refer to [OLH Article 1000889](#).

UC-MMX30-T

Crestron Flex Advanced Tabletop Small Room Video Conference System with ASUS® Mini PC for Microsoft Teams® Rooms

Enterprise-Grade Security

Crestron Flex is an enterprise-grade solution, engineered in partnership with Microsoft to integrate seamlessly into any Microsoft Teams Rooms software deployment. Crestron Flex is ideally equipped for mass deployment throughout any sized corporate, university, medical, military, or government facility.

Easy Provisioning and Device Management

The XiO Cloud service is an IoT cloud based provisioning service (available separately) that enables installers and IT managers to easily deploy and manage thousands of devices. The XiO Cloud service provides system alerts, network management and provisioning, and the pairing of a control device to the system's UC Engine. System updates are controlled by Windows® software update.

Visit www.crestron.com/xiocloud for additional information.

Premium-Level Support

Crestron Flex Care is an optional subscription service that automatically renews annually, providing 24/7 live remote technical support, an extended five year warranty on Crestron® branded hardware, expedited advance replacements, and a discounted rate for on-site support.

Visit www.crestron.com/flexcare for detailed terms and conditions and additional information.

Dual Control Option

A TS- or TSW- 70 series 10.1 in. touch screen may be added to the solution as an additional control point for the Microsoft Teams Rooms environment.^{2,3}

Deployment Resources

View the [Crestron Flex Pre-Deployment Checklist](#) to help plan your Crestron Flex installation.

Specifications

Included Components

UC-2-T-V	Crestron Flex Tabletop Audio Conference System includes: <ul style="list-style-type: none">PoE+ Injector, Input: 100~240VAC, Output: 48VDC, 0.5ACable, CAT5e, RJ-45-to-RJ-45, 12 ft (3.7 m) (x2)Cable, USB 2.0, A - Micro B, 5.8 ft (1.8 m)
UC-BRKT-250-P-T-ASSY	UC Bracket Assembly comprised of: <ul style="list-style-type: none">UC Engine: ASUS Mini PC with Microsoft Teams videoADPT-USB-ENET: USB-to-Ethernet AdapterHD-CONV-USB-250: HDMI® over CAT5 to USB 3.0 converter for content ingestMounting hardwareEDID Passthroughs: (2) HDMI Female-to-Male
CCS-CAM-USB-F-400	Collaboration Camera
UC-PR	UC Presentation Transmitter
CBL-4K-DP-HD-6	DisplayPort™ to HDMI Cable, 6 ft (1.8 m)
CBL-CAT5E-7	Ethernet LAN cable for UC Engine, RJ-45-to-RJ-45, black, 7 ft (2.1 m)
CBL-HD-6	HDMI Interface Cable, 6 ft (1.8 m)
CBL-USBC-USBA-6	USB 3.0 Cable, Right angle USB-C® to A, 6 ft (1.8 m)
DM-CBL-ULTRA-PC-20	(2) Ethernet LAN cable, CAT6a, RJ-45-to-RJ-45, blue, 20 ft (6.1 m)
UC-CAM-WMK	Wall Mount Kit for Crestron® Cameras

Crestron Flex Tabletop Conferencing System

Touch Screen	7 in. (178 mm) diagonal capacitive multi-touch TFT active matrix color LCD, 1280 x 800 pixels
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UC-MMX30-T

Crestron Flex Advanced Tabletop Small Room Video Conference System with ASUS® Mini PC for Microsoft Teams® Rooms

Mic Mute Symbol and Light Bar	(4) Capacitive buttons with bi-color LEDs, toggles between mute and unmute
AEC	Automatic gain control, dynamic noise reduction, acoustic echo cancellation, full-duplex IEEE 1329 Type 1 compliant
Speaker	Full range speaker; Amplifier Power: 7 W (rated power); Output Volume: 83 ±3 dBA @1m 1 kHz; Frequency Response: 100 Hz - 20 kHz
Microphones	(4) Built-in omnidirectional, digital MEMS microphones with 360° audio pickup; Maximum pickup range: 10 ft (3 m) typical
Occupancy Sensor	Approx. 10 ft (3 m) PIR range in front of touch screen
Ethernet	100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, DHCP, TCP/IP, UDP/IP, CIP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), SRTP, IEEE 802.1X, Active Directory® authentication, digest access authentication, password login, XiO Cloud client, Microsoft Intune® client, IEEE 802.3at Type 2 PoE+ compliant
USB	USB 2.0 micro Type B device port, supports UAC for audio interface to UC Engine (cable included)
Power	IEEE 802.3af Class 3 and 802.3at Class 4 PoE+ powered device; PoE+ injector included
Dimensions	Height: 3.02 in. (77 mm) Width: 7.17 in. (182 mm) Depth: 9.61 in. (244 mm)
Weight	2.1 lb (0.96 kg)

Camera

Image Sensor	12 Megapixel 1/2.3 CMOS sensor
Lens	High precision, ultra wide angle, six element aspherical glass lens
Field of View	150° diagonal, 120° horizontal, 90° vertical
Aperture	f/2.8
Autozoom	Genius Framing automatic lossless digital zoom intelligently frames around people in the room
Connectivity	Plug-and-play USB 3.1
Resolution/FPS	HD 1080p @ 30 fps
Dimensions	Height: 1.40 in. (36 mm) Width: 1.60 in. (41 mm) Depth: 2.82 in. (72 mm)
Weight	4.2 oz (120 g)

UC Bracket Assembly

UC Engine	Mini PC, Intel Core® processor with Windows® 10 IoT Edition OS and 100/1000 Mbps Ethernet connectivity
UC Client	Microsoft Teams Rooms
Management Client	XiO Cloud Service
Content Ingest	HDMI input via CAT5 to USB 3.0 converter (model HD-CONV-USB-250)

NOTE: Use only DigitalMedia™ Ultra cable between the conference and content ingest devices. The maximum supported cable length is 300 ft.

Display Output	Single or dual display support ¹
Display Output Resolution	1080p
Power	UC Engine: 90 W via external 100-240VAC, 50/60 Hz adapter (included); HD-CONV-USB-250: 24VDC via external 100-240VAC, 50/60 Hz power pack (included)
Construction	Metal mounting bracket, black, preassembled with UC Engine and CAT5 to USB 3.0 content ingest device (HD-CONV-USB-250)
Mounting	Surface wall mount behind the display device, or attach to the rear of the display device via the bolts attaching the display to a VESA® compliant display mount; Bracket includes mounting holes on both side edges, spaced 100, 200, and 300 mm vertically, to allow for attachment to either side of the display mounting plate
Dimensions	Height: 15.00 in. (381 mm) Width: 14.50 in. (368 mm) Depth: 1.72 in. (44 mm)
Weight	6.64 lb (3 kg)

UC Presentation Transmitter (UC-PR)⁴

Video Input Signal Types	HDMI, DisplayPort™ 1.2 via USB-C® port
Video Output Signal Types	HDMI over CAT5
Resolution	1080p
Video Content Protection	HDCP 1.4 and HDCP 2.2

UC-MMX30-T

Crestron Flex Advanced Tabletop Small Room Video Conference System with ASUS® Mini PC for Microsoft Teams® Rooms

Audio Input Signal Types	HDMI, DisplayPort 1.2 via USB-C port
Audio Output Signal Types	HDMI over CAT5
Communications	Ethernet: 100 Mbps, auto-switching, auto negotiating, auto-discovery HDMI over CAT5: HDCP, Ethernet HDMI: HDCP USB: USB 2.0 and USB 3.0
Connectors	LAN PoE: (1) 8-pin RJ-45 connector; ACC: (1) USB 3.0 Type B connector; For firmware loading only; USB A: (1) USB 2.0 Type A connector; USB B: (1) USB 2.0 Type B connector; USB: (1) USB 2.0 Type-C connector; HDMI IN: (1) HDMI Type A; To RX: (1) 8-pin RJ-45 connector; Power Jack: (1) DC power connector; LAN: (1) 8-pin RJ-45 connector; Ground: (1) 6-32 screw
Indicators	PWR: (1) Green LED, indicates operating power supplied via power supply Ethernet: (2) LEDs on To RX port; Green indicates Ethernet link status; Amber indicates Ethernet activity
Power Supply	24VDC, 6A, 100-240VAC
Device Charging	Up to 60 W charging for devices connected via USB-C port
Construction	Metal, black finish, integral mounting flanges; Vented top, front, bottom, and sides
Mounting	Surface mount for mounting under table; Attaches to a single rack rail
Dimensions	Height: 1.58 in. (40 mm) Width: 9.25 in. (235 mm) Depth: 8.20 in. (208 mm)

Model

UC-MMX30-T

Crestron Flex Advanced Tabletop Small Room Video Conference System with ASUS® Mini PC for Microsoft Teams® Rooms

Available Accessories

For a list of available accessories, visit the [UC-MMX30-T](#) product page.

Notes:

1. Display must support "Wake on Sync" and "Sleep on No Sync" functionality. Consult the display manufacturer's specifications or internal settings of the specific display.
2. Room control capability (lighting, shades, thermostats, etc.) requires additional equipment and commissioning to be provided by a Crestron authorized integrator and/or programmer. Additional costs may apply.
3. Only one control device may be connected via direct connection method.
4. The UC-PR uses a USB-C 2.0 connection to provide content sharing, BYOD support, and charging for a user's device. Because USB-C supports multiple functions, device compatibility often varies. While some devices can accept power and data through the same USB-C connection, others cannot. The USB-C port on the UC-PR (labelled "USB") uses DisplayPort alternate mode for transporting video signals. Consult the connected device's user manual or manufacturer to ensure that the device supports DisplayPort alternate mode. Some devices that support DisplayPort alternate mode may not support device charging. For a list of tested devices, refer to [OLH Article 1000889](#). USB-C transfer speeds may vary based on the connected device's processing speed, system configuration, the operating environment, and/or other factors. If the user's device does not support USB-C, then a combination of HDMI and USB B may be used for content sharing or BYOD functionality as described in the [UC-MMX30-T Quick Start guide](#) (Doc. 8881).

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at [www.crestron.com/How-To-Buy/Find-a-Representative](#) or by calling 855-263-8754.

This product is covered under the Crestron standard limited warranty. Refer to [www.crestron.com/warranty](#) for full details.

The specific patents that cover Crestron products are listed online at [patents.crestron.com](#).

Certain Crestron products contain open source software. For specific information, please visit [www.crestron.com/opensource](#).

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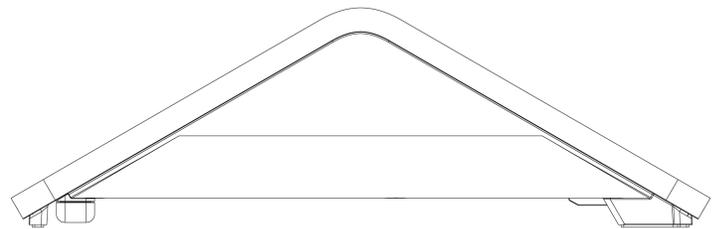
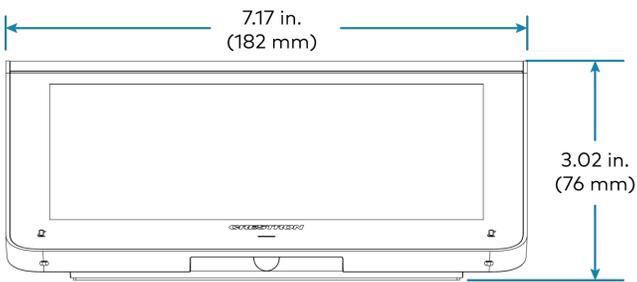
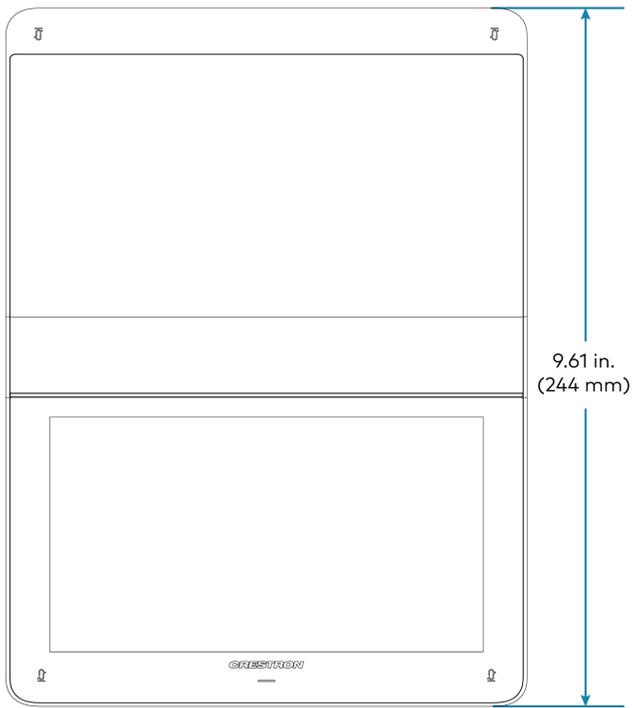
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Rev 10/15/21

UC-MMX30-T

Crestron Flex Advanced Tabletop Small Room Video Conference System with ASUS® Mini PC for Microsoft Teams® Rooms

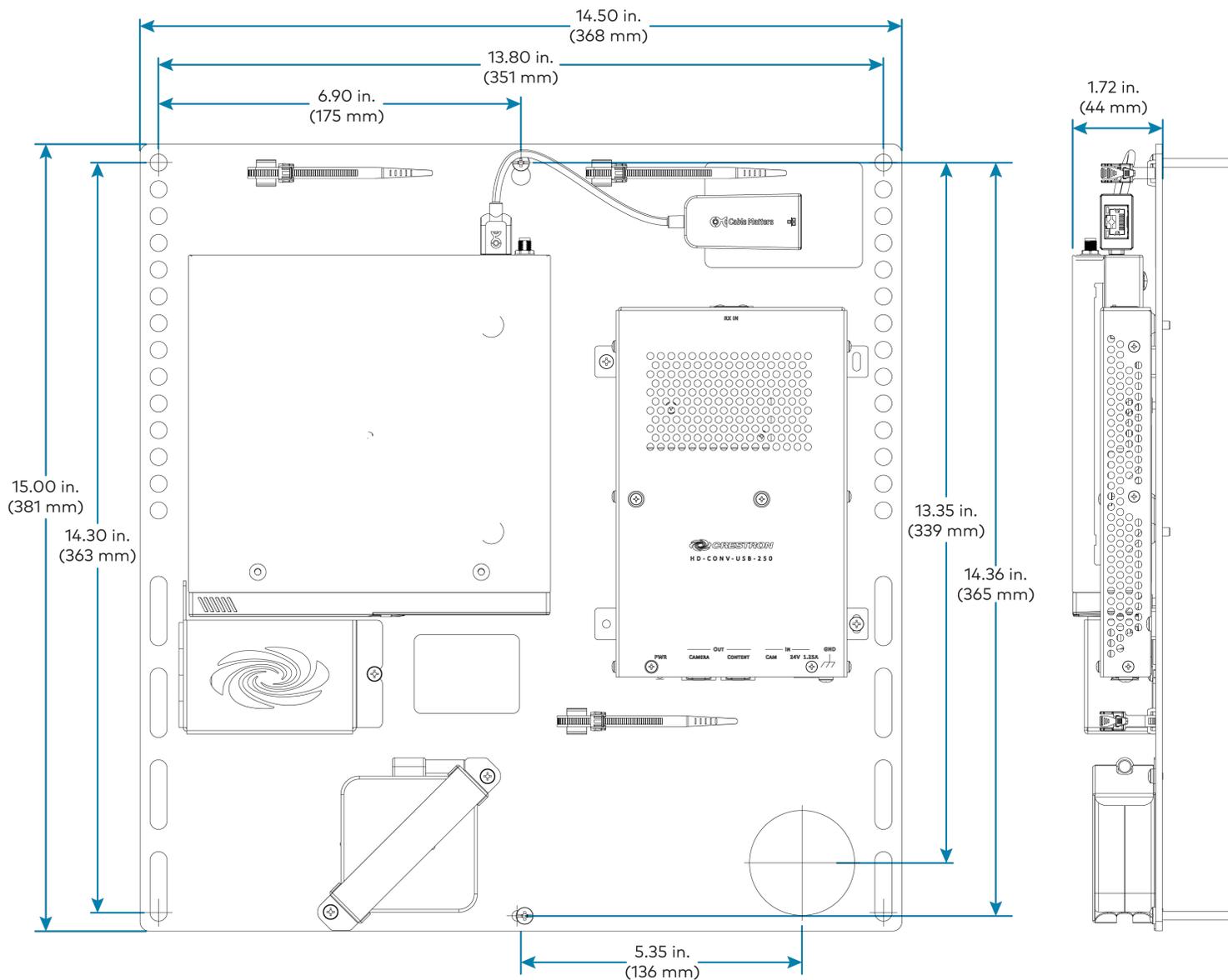
Tabletop Conferencing Device (UC-2-T-V)



UC-MMX30-T

Crestron Flex Advanced Tabletop Small Room Video Conference System with ASUS® Mini PC for Microsoft Teams® Rooms

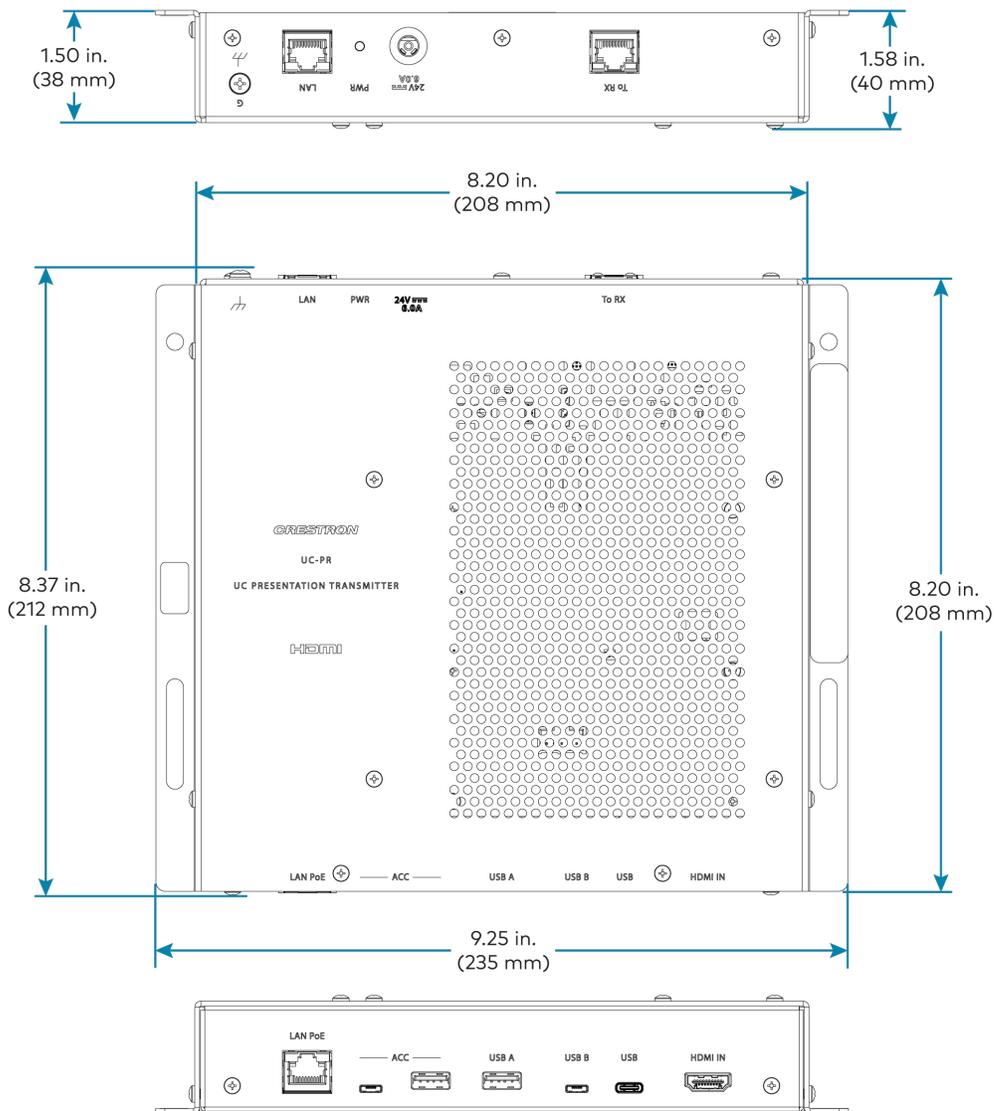
UC Bracket Assembly (UC-BRKT-250-P-T-ASSY)



UC-MMX30-T

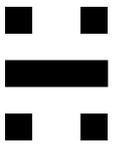
Crestron Flex Advanced Tabletop Small Room Video Conference System with ASUS® Mini PC for Microsoft Teams® Rooms

UC Presentation Transmitter (UC-PR)



Huddly

L1



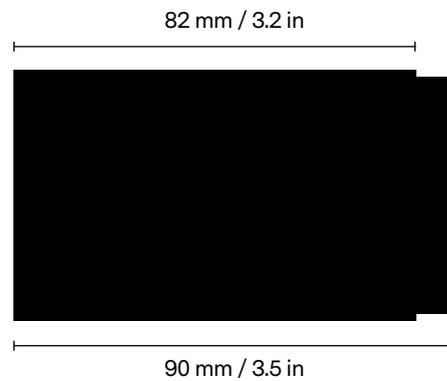
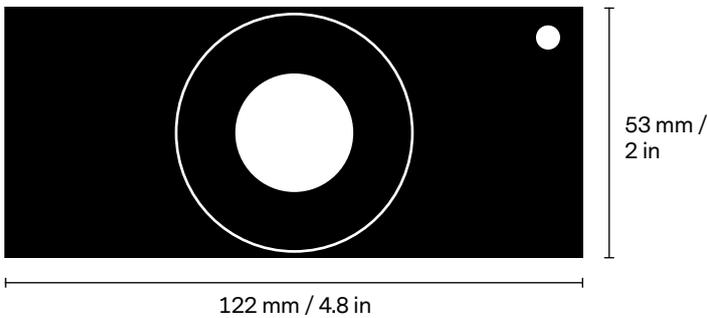
**For large and medium
rooms.**



Huddly L1

Product Information

Weight: 0.6 kg / 1.3 lbs



Specifications

Image

- 6K image sensor
- 20.30 Megapixels 1" CMOS Sensor
- 1080p Full HD @ 30 fps
- 720p HD @ 30fps
- Up to 5x digital zoom
- 16:9 aspect ratio output
- 180° image auto-flip

Optics

- Wide-angle glass optics
- Horizontal field of view 92°
- Vertical field of view 65°
- Diagonal field of view 103°
- f/2.9 aperture

System & Hardware Requirements

- Windows 10
- Huddly USB to PoE Adapter (included)

Connectivity

- Connector: RJ45
- Cable: Cat 5e/6/7
- USB 3.0 port (via USB to PoE Adapter)

Hardware

- High-performance VPU with neural compute engine
- Aluminum body
- Camera tripod mount
- Color: Matte Black

Color

Matte Black

Wall & Shelf Mount (Included)

- Made for placement on wall or shelf
- Weight of Mount: 120 g/ 0.2 lbs

Packaging Dimensions

L: 274 mm x W: 184 mm x H: 93 mm

Huddly L1

Product Information

Features

Genius Framing

The camera detects the people in its entire field of view and intelligently frames them for the best experience.

Digital Pan/Tilt/Zoom

The camera has no moving parts, allowing Pan, Tilt, and Zoom functions to be adjusted smoothly, silently and instantly.

Software-Upgradable

The camera gets even smarter over time with regular software enhancements and new intelligent features.

Power over Ethernet

The camera receives power and transmits data through Power over Ethernet. Installation is reliable and flexible in regard to cable length.

Image Enhancement

The camera automatically corrects white balance, color, and optical aberration. It reduces image noise through bias compensating spatio-temporal filtering with wide-area chroma filtering and adapts to poor lighting conditions with Dynamic Light Optimization.

Real-Time Dewarping

The camera's wide-angle image is dewarped and perspective corrected in real time, rendering a natural, true-to-life view.

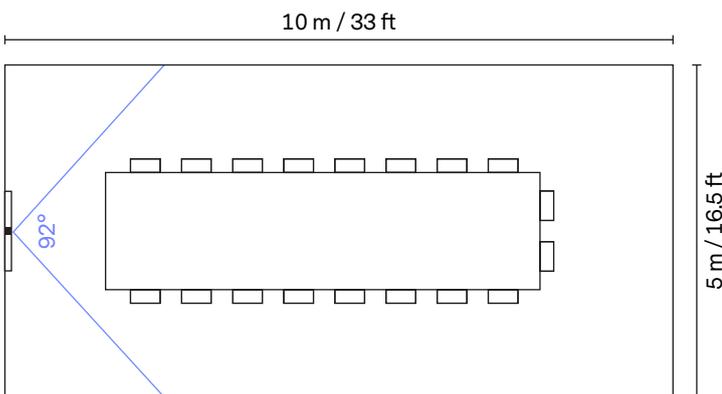
Portrait Lighting

The camera uses AI to understand the lighting conditions in the image. It automatically adjusts exposure to ensure that faces are well-lit and facial expressions are clearly visible.

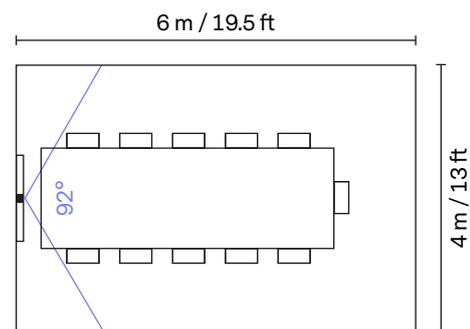
InSights Analytics API

The camera can detect and count the people within its entire field of view, with high-quality analytics data accessible via the Huddly InSights API.

Room Examples



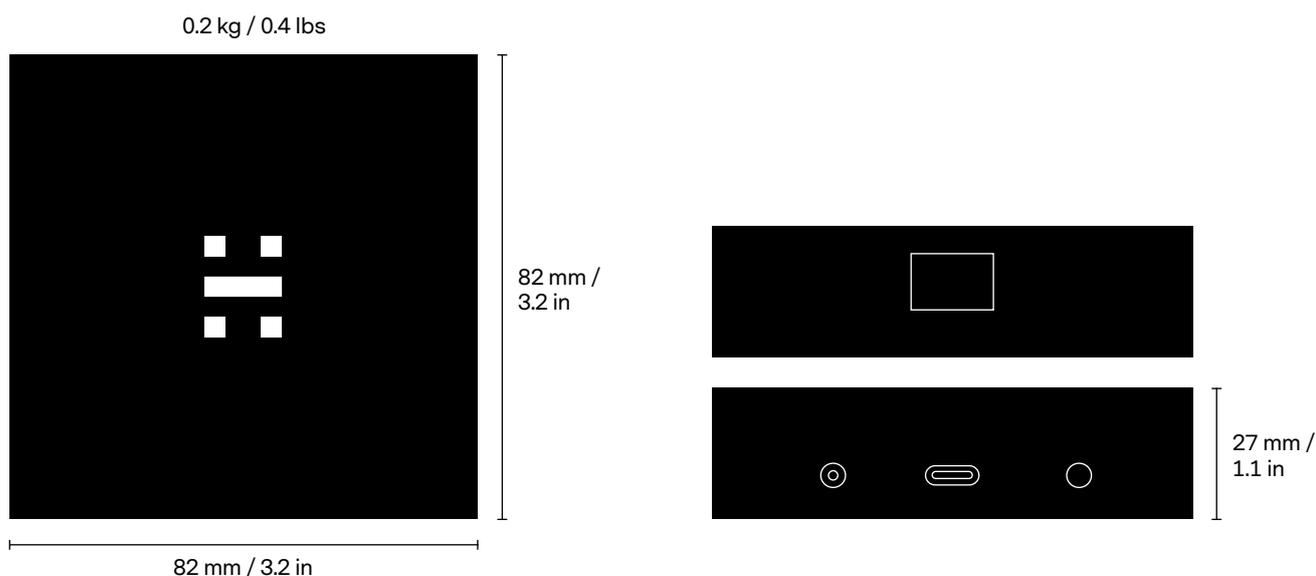
Large Room



Medium Room

Huddly

USB to PoE Adapter



The USB to PoE Adapter lets you connect Huddly L1 to your meeting room computer.

Connectivity

- USB C port to host computer
- SuperSpeed USB 3
- RJ45 gigabit Ethernet port to camera
- DC power connector

Power Requirements

Requires external 5V 3A power, supplied either via USB C or the included external AC/DC 5V 4A power adapter

Hardware Specifications

- Aluminum body
- Built-in magnet for easy mounting to metal wall mount plate (included)

Color

Matte Black

System & Hardware Requirements

Windows 10

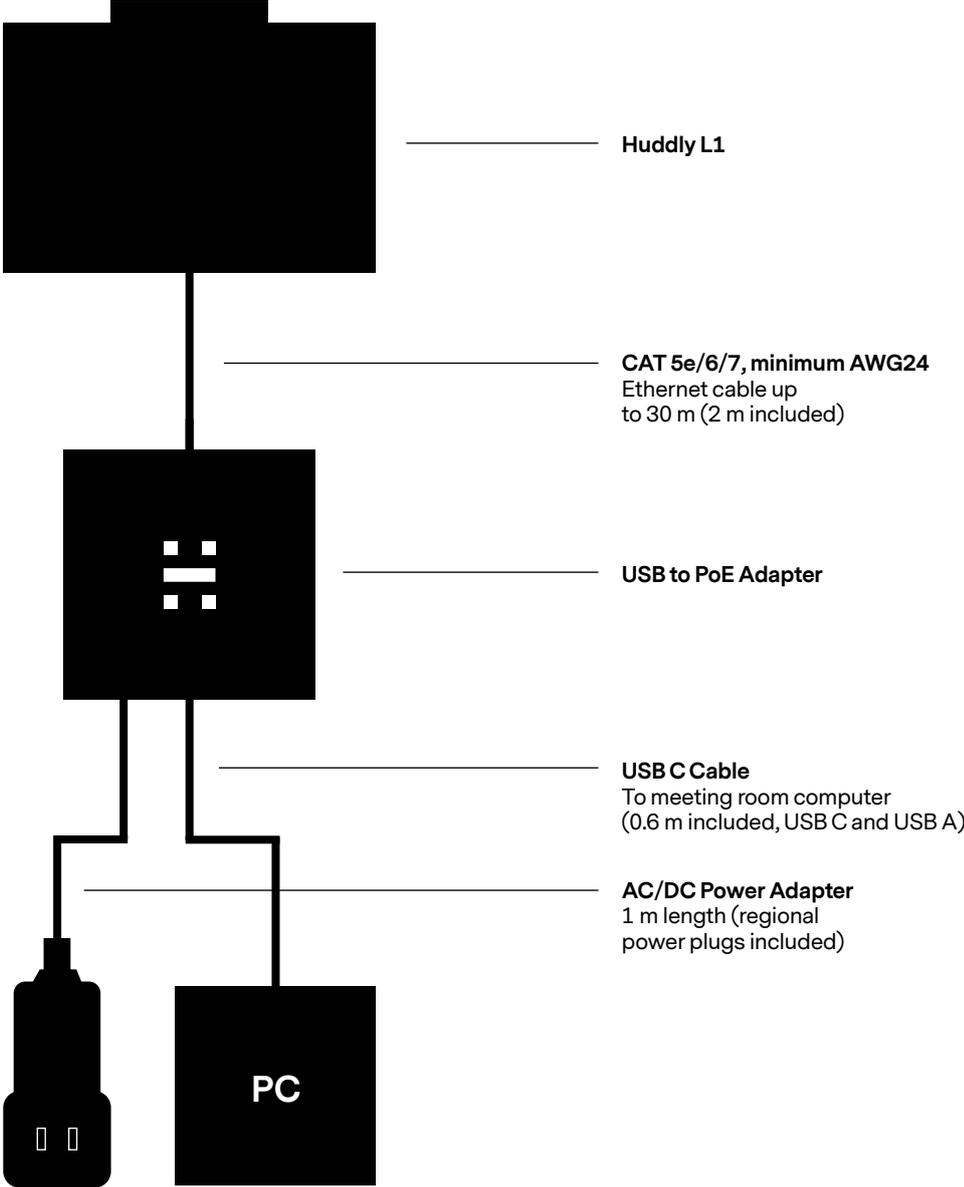
Huddly

USB to PoE Adapter

Connectivity

You can easily install Huddly L1 in any room with a single Ethernet cable of up to 100 meters. The USB to PoE Adapter comes with both USB C and USB A cables for connecting to meeting room devices.

Depending on your device, the USB to PoE Adapter may also require a power adapter (included).





Middle Atlantic Products

EXCEPTIONAL SUPPORT & PROTECTION™

CFR Series Cabinet Frame Rack



C(UL) US LISTED

EIA/TIA Compliant

Designed to provide rackspace in cabinets, credenzas, podiums, lecterns and other pre-built structures

Features

- Low profile design maximizes the amount of useable rackspace
- Features a strong welded frame that allows for pre-loading equipment and transportation to the installation site
- Available in 16", 18", 20" and 23" depths
- Available in 8 to 16 space useable racking height
- Comes standard with two adjustable front to rear lacing bars for cable dressing or mounting accessories
- Rackrail features offset cable tie area which keeps the rack to a slim 19-1/4" width



CFR-14-18



Architects and Engineers' Specifications

EIA compliant 19" cabinet frame rack shall be Middle Atlantic Products model #CFR-___-___ (refer to chart). Overall dimensions shall be 19.25" W x ___" H with a useable depth of ___" (refer to drawing). Rack shall have a weight capacity of 250 lbs. Rack shall have ___ rackspaces (refer to chart). Rack shall be constructed of the following materials: top and bottom shall be 16-gauge steel, rackrail shall be constructed of 11-gauge steel with tapped 10-32 mounting holes in universal EIA spacing. Rack shall be finished in a durable black powdercoat. Rack shall include two adjustable side mounted horizontal lacing bars for enhanced cable management. Cabinet frame rack shall be UL listed in the US and Canada. Cabinet frame rack shall be GREENGUARD Gold Certified. Cabinet frame rack shall be manufactured by an ISO 9001 and ISO 14001 registered company. Cabinet frame rack shall be warranted to be free from defects in material or workmanship under normal use and conditions for the lifetime of the product.

OPTIONS

- Runner kit shall be 5-RSXX (XX=useable depth), and shall add 1/4" to the overall height.

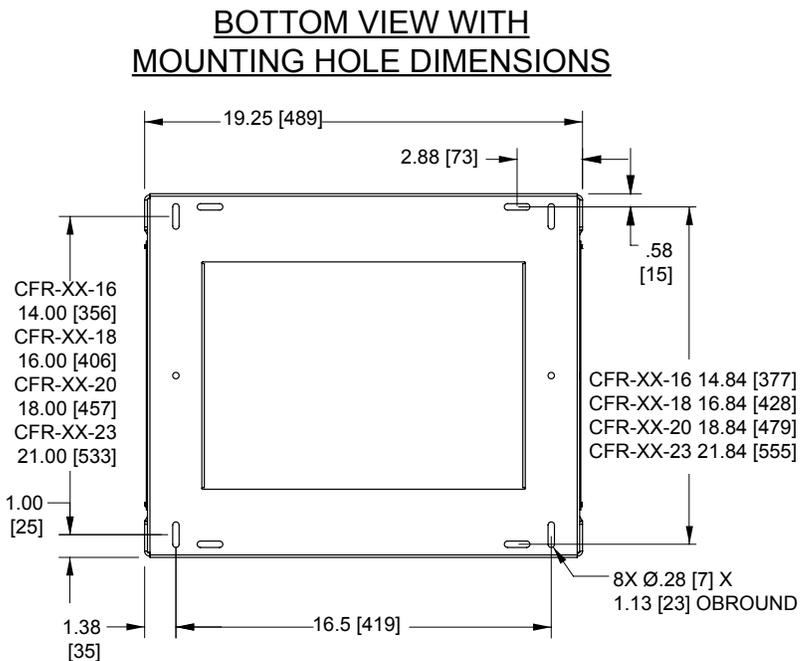
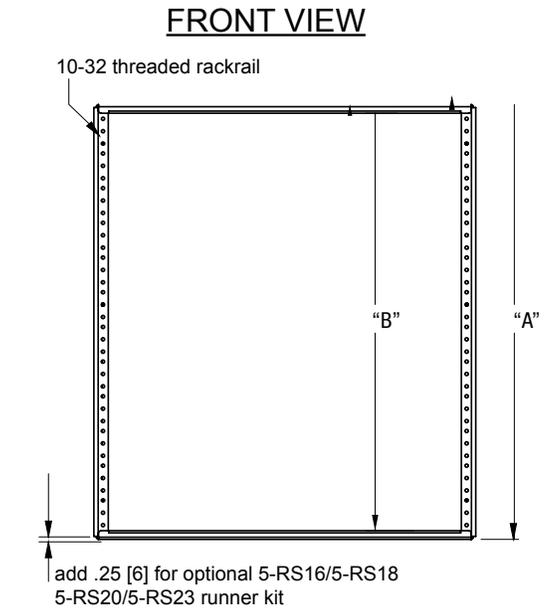
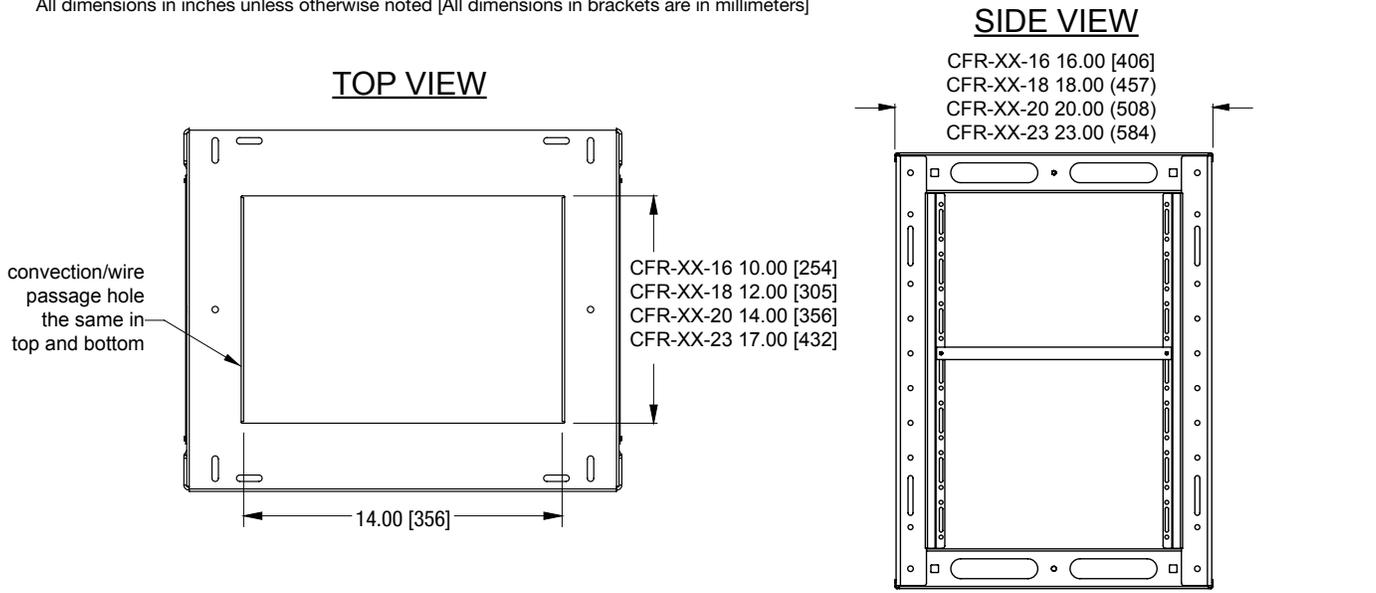
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96-01102 / rev c / 5-21-20 / Cabinet Frame Rack

Cabinet Frame Rack basic dimensions

All dimensions in inches unless otherwise noted [All dimensions in brackets are in millimeters]



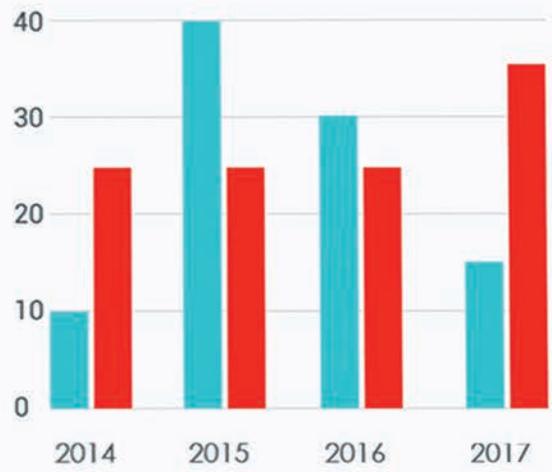
Part #	A Overall Height	B Racking Height	# of Rackspaces
CFR-16-XX	28.94 [735]	28.00 [711]	16
CFR-15-XX	27.19 [690]	26.25 [667]	15
CFR-14-XX	25.43 [646]	24.50 [622]	14
CFR-13-XX	23.69 [602]	22.75 [578]	13
CFR-12-XX	21.94 [557]	21.00 [533]	12
CFR-11-XX	20.19 [513]	19.25 [489]	11
CFR-10-XX	18.44 [468]	17.50 [445]	10
CFR-9-XX	16.69 [424]	15.75 [400]	9
CFR-8-XX	14.94 [379]	14.00 [356]	8



Note: Replace "XX" with desired depth (16", 18", 20", or 23")

NEC Ultra High Definition Large Format Displays

65", 75", 86" and 98" Commercial Displays Ideal for Digital Signage Applications



Brand new UHD displays in an aesthetically-focused design allows for seamless integration into any digital signage environment while maintaining the commercial ruggedness necessary for the retail, educational and corporate environments

Beyond Standard Signage

With industry leading experience in superior design and customer focus, the NEC large C series allow for clear, detailed imagery for unobtrusive digital messaging. New contemporary and slim mechanical design with focused aesthetics allows for the smooth and stylistic integration into any type of environment. Their full metal chassis coupled with real-time temperature sensors and integrated cooling fans maintain the professional quality necessary for commercial environments. With an anti-glare screen and ultra high definition panel, customers can enjoy the perfect image in any circumstance. These displays come equipped with a wide range of the latest connectivity interfaces including three separate HDMI 2.0 interfaces, two separate DisplayPort interfaces and a DisplayPort Out connection to complement the native Ultra High Definition at 60Hz panel. These displays also include expandability options such as the Open Pluggable Specification (OPS) and Raspberry Pi Compute Module slots for source integration directly into the display. The NEC C series boasts 350 - 400 cd/m² brightness that allows for efficient readability in higher ambient light situations and is ideal for 24/7 signage in airports, quick-serve restaurants, and retail.

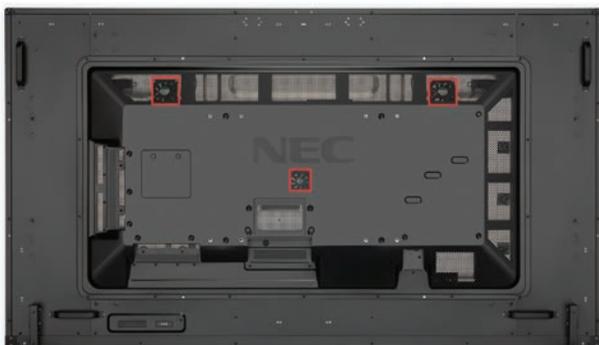
Scalable Computing Power

Integrated computing options allow for cable free signage for any type of situation. The on-board multimedia player can be utilized for simple signage applications by allowing auto-play off of USB or SD card and content transfer via LAN. For more advanced signage systems, these displays contain an industry first ability to integrate a Raspberry Pi Compute module for near limitless potential and application. Finally, each display adheres to the Open Pluggable Specification that gives the ability to seamlessly integrate a full PC, HDBaseT receiver or other options directly into the unit.



Advanced Heat Management

Monitoring and managing the temperature of each display is crucial to secure reliability and longevity. An industrial-strength, premium-grade panel with additional thermal protection, internal temperature sensors with self-diagnostics, and fan-based technology allows for 24/7 operation, and protects your display investment. Without thermal management, displays can be prone to damaging heat over time. This damaging heat will lower the picture quality and life expectancy of the product. Integrated cooling fans automatically turn on and stay on when high internal temperatures are detected. These will stay on until the heat is properly dissipated and the display remains under proper temperature thresholds.



Location of Thermal Management Cooling Fans



Anti-Glare Panel

Each of the new large C series commercial displays come equipped with a high haze panel that scatters ambient lighting rather than reflecting it like most other displays. This allows for content to always be viewable and onlookers to have perfect screen readability in any situation.



With Anti-Glare



Without Anti-Glare

Blue ON LED and Ambient Light Sensor

New mechanical structure allows for sleeker LED and ambient light sensor design. Auto dimming of the LED backlights can be utilized through the ambient light sensor allowing for the brightness to change depending on the external lux in the room of installation.



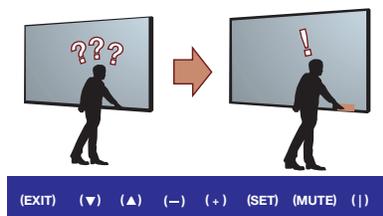
SpectraView Engine

Enhanced imaging performance through advanced settings of all relevant parameters allow full control of brightness, color, gamma and uniformity via integrated color-critical chipset.



Key Guide

New Key Guide function allows for easier access to buttons when manually controlling the unit via the buttons on the back of the display by adding a graphic on the screen that directs the customer to the correct button layout in both landscape and portrait modes.



Aesthetically Focused Design

Brand new mechanical design focuses on smooth, sleek curves, thinner bezels, reduced depth and reduced overall weight while maintaining the quality and reliability for efficient 24/7 runtime capabilities.



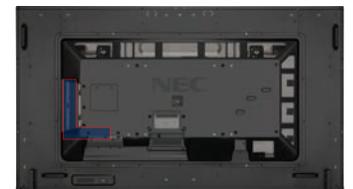
NaViSet Administrator 2

This software is an all-in-one remote support solution that runs from a central location and provides monitoring, asset management and control functionality of the majority of NEC display devices and Windows computers. It is ideal for multi-device installations over larger infrastructures.



L-Shaped Connectivity

Connectivity is located on both the bottom and side of the display to allow for easy access regardless of orientation.



Cisco Compatible Partner:

Full compatibility with Cisco WebEx Kit products. The Cisco WebEx Kit is a professional video conferencing tool that has everything integrated into a single soundbar including microphone(s), camera(s), the speaker and the Video Conferencing Codec. This, combined with the large format NEC displays provide the ultimate conferencing solution.



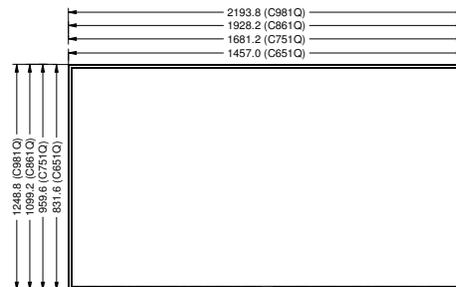
Removable Logo

When mounting from Landscape to Portrait orientation, there is now the ability to change the orientation of the logo or remove it all together



MODEL		C651Q	C751Q	C861Q	C981Q
LCD MODULE	Panel Technology	D-LED, VA	E-LED, S-IPS		D-LED, S-IPS
	Viewable Image Size	65"	75"	86"	98"
	Native Resolution	3840 x 2160			
	Brightness (Typical/Maximum)	320/400 cd/m ² / 245 cd/m ² / 350 cd/m ²			
	Contrast Ratio (Typical)	4000:1	1200:1 native, not including localized dimming		1300:1 native, not including localized dimming
	Viewing Angle	178° Vert., 178° Hor. (89U/89D/89L/89R) @ CR> 10			
	Aspect Ratio	16:9			
	Displayable Colors	Over 1.07 Billion			
	Orientation	Landscape and Portrait			
	Panel Haze (%)	44	28		
CONNECTIVITY	Input Terminals	Digital HDMI 2.0 x3 (with HDCP), DisplayPort 1.2 x2 (with HDCP)			
	Analog	None			
	Audio	3.5mm Mini Jack, HDMI Audio x3, DisplayPort Audio x2			
	External Control	LAN (100Mbit), 3.5 Mini Jack IR Remote, RS232C			
	Data	microSD (Media Player), USB 2.0 (Media Player), USB 2.0 (Service), USB Type-B (Upstream), USB 2.0 x2 (Compute Module, USB CM1 is Powered 5V/2A)			
	Output Terminals	Digital DisplayPort (Outputs DisplayPort1 and OPS (1CH DisplayPort Only))			
	Analog	None			
	Audio	3.5mm Audio Mini Jack, External Speaker x2			
	External Control	LAN (100Mb)			
	POWER CONSUMPTION	On (Typ/Max Brightness/Overall Max)	200W/255W/365W	195W/250W/375W	230W/300W/425W
Network Standby		2W			
Normal Standby		0.5W			
Current Rating		4.3A @ 100V, 1.8A @ 240W	4.4A @ 100V, 1.9A @ 240V	5.0A @ 100V, 2.1A @ 240V	6.1A @ 100V, 2.6A @ 240V
PHYSICAL SPECIFICATIONS	Speaker Rating	Integrated 10W x 2, Optional 15W x 2			
	Bezel Width (L/R, T/B)	12.9mm/12.9mm, 13.1mm/13.1mm	14.8mm/14.8mm, 14.8mm/14.8mm	15.3mm/15.3mm, 15.3mm/15.3mm	15.9mm/15.9mm, 15.9mm/15.9mm
	Net Dimensions (Without stand; W x H x D)	57.34 x 32.7 x 3.1in. 1457.0 x 831.6 x 79.4mm	66.2 x 37.8 x 2.8in. 1681.2 x 959.6 x 71.1mm	75.9 x 43.3 x 2.9in. 1928.2 x 1099.2 x 74.3mm	86.4 x 49.2 x 3.7in. 2193.8 x 1248.8 x 93.0mm
	Net Weight (Without Stand)	89.9lbs / 40.8kg	115.7lbs. / 52.6kg	127.2 lbs. / 57.8kg	198.6 lbs. / 90.0kg
SENSORS	VESA Hole Configuration	8x M8 x 16mm (600 x 400, 400 x 400)			
	Ambient Light Sensor	Integrated and programmable			
	Human Sensor	Optional through KT-RC2 Accessory			
	Temperature Sensor	Integrated and programmable; linked to cooling fans			
ENVIRONMENTAL CONDITIONS	NFC Sensor	Integrated; works in conjunction with free NEC Intelligent Wireless Data Application			
	Operating Temperature	0 to 40C			
	Operating Humidity	20-80%			
LIMITED WARRANTY	Operating Altitude 3000m (9843ft)				
LIMITED WARRANTY	3 years Advanced Replacement				
ADDITIONAL FEATURES	HDR Gamma Support (HLG nand PQ), Localized Dimming, Ambient Light Sensor, AMX Support, Auto ID/Auto TileMatrix, Automated Email Alert Function, CEC Support through HDMI, Crestron Roomview Support, DICOM Simulation, Display Browser Control, Display Wall Calibrator Compatible, High Haze Panel, Image Flip, Intelligent Wireless Data (NFC), Key Guide, Media Player through Browser Control/SD Card/USB, Multi Picture Mode, NaViSet Administrator 2 Compatible, OSD Rotation for Portrait Orientation, OPS Compatible, PJ Link Support, Point Zoom Function, Power USB Port (5V/2A), Programmable LUT x3, Raspberry Pi Compute Module Compatible, Removable Logo Ornament, Real Time Clock, SpectraView Engine Support, SNMP Support, 24-Hour Scheduler Function, Cisco Compatible				
SHIPS WITH	3m AC Power Cord, 1.8m HDMI cable, 1.8m DisplayPort Cable, IR Remote Control, Batteries, CD-ROM (User Manual)				
OPTIONAL ACCESSORIES	Table Top Stand (ST-801), Optional Speakers (SP-TF1), All OPS Option Cards, Raspberry Pi Compute Module 1 and 3 with optional NEC Interface Board, Large Wall Mount (WMK-3298T), Regular Wall Mount (WMK-3298T for C651Q, C751Q, and C861Q only) Slim Wall Mount (WMK-3255S for C651Q), Human Sensor (KT-RC2)				

Dimensions



Options

OPS PC's

OPS-PCAEQ-PS2

OPS-APIS-PS

OPS-TCIS-PS



SDI

HD-SDI SB-01HC

3G-SDI SB-04HC



HDBaseT SB-07BC



Compute Module

Compute Module Interface Board

DS1-IF10CE

NEC Raspberry Pi Compute Module

RP3CM16GB



Tabletop Stand

ST-801



Speaker

SP-TF1

Input Panels

- | | |
|-------------------------------------|------------------|
| 1. HDMI IN2 | 12. USB CM1 (2A) |
| 2. HDMI IN3 | 13. USB CM2 |
| 3. DisplayPort IN2 | 14. LAN1 |
| 4. DisplayPort IN1 | 15. LAN2 |
| 5. DisplayPort OUT | 16. USB MP |
| 6. Audio IN | 17. microSD |
| 7. External Speaker Terminal | 18. REMOTE IN |
| 8. Internal/External Speaker Switch | 19. RS-232C |
| 9. Audio OUT | 20. HDMI IN1 |
| 10. USB1 | |
| 11. USB2 | |



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Essential performance. Enticingly priced.

NEC E Series



LED-Backlit, 4K UHD LCD Displays Ideal for Education, Corporate and Digital Signage Applications

Highlights

The Essentials

With a brilliant 4K UHD* panel and simplified controls, the NEC E Series delivers everything you need for captivating digital signage.

- Integrated USB Media Player allows for playback of video, audio and picture files and additional USB Port for 5V/3A power delivery
- Ultra high definition panel (3840 x 2160)* and high contrast ratio with local dimming provides stunning imagery.
- Built-in tuner allows for high-definition broadcast capabilities
- Integrated LAN port for network control over IP
- 3-year warranty protects your investment
- Supports Audio/Video Mute Setting, and can also be muted individually
- External Power Supply at USB-C (5V/3A Max) for direct connection to external IoT devices such as Raspberry Pi using a USB-C cable***

The Extras

Delivering more than just the basics, the NEC E Series has integrated features that will leave no head unturned

- LED backlighting enables eco-friendly digital signage
- Simple 24-hour scheduler feature allows for programmable on/off times
- Multiple HDMI ports enhance best-in-class connectivity
- Internal, 10W** down-firing stereo speakers enhance the experience with superior sound
- Ability to wake the display simply by plugging HDMI or VGA into the unit
- Tilt Installation (-10°~10°) The display can be tilted back and forth to install it at desired angle
- Embedded Joystick key for an intuitive operation by showing key guidance on screen

*E328 has FHD (1920 x 1080) resolution

**E328 has integrated 5W x 2 down-firing speakers

*** When using this function, "Power Supply" has to be set to [ON] in OSD



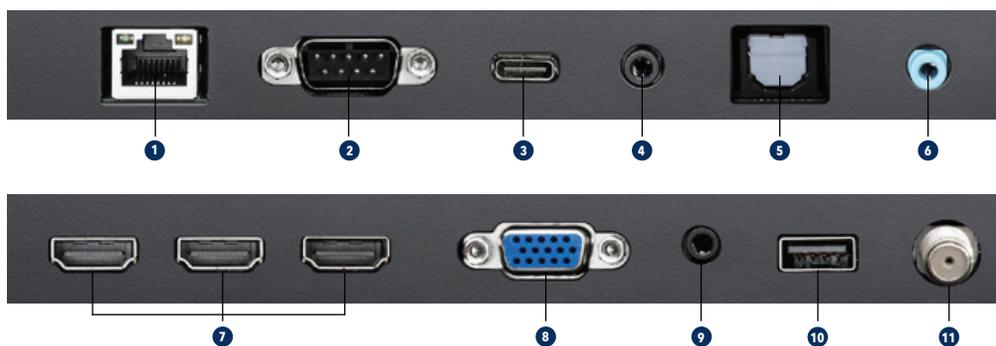
MODEL	E328	E438	E498	E558	E658	
LCD MODULE	Panel Technology	IPS				
	Viewable Image Size	31.5"	42.5"	48.5"	54.6"	64.5"
	Native Resolution	1920 x 1080	3840 x 2160			
	Brightness (Typical/Minimum)	350 cd/m ² / 320 cd/m ²				
	Contrast Ratio (Typical)	8,000:1 (Out of the box conditions, local dimming ON)				
	Viewing Angle	178° Vert., 178° Hor. (89U/89D/89L/89R)				
	Aspect Ratio	16:9				
	Displayable Colors	16.7 Million	Over 1.07 Billion			
CONNECTIVITY	Orientation	Landscape				
	Input Terminals	HDMI x3 (2.0)*				
	Digital	VGA (mini 15pin D-SUB) · Component VGA share (D-SUB) · Composite (mini jack 3.5mm)				
	Analog	Audio Mini Jack 3.5mm				
	Audio	LAN, RS232C**				
	External Control	Integrated ATSC (8-VSB, Clear-QAM)/NTSC Coaxial Tuner				
	Tuner	USB Media Player (5V/500 mA)				
	USB Type-A port	Power Supply (5V/3A)				
	USB Type-C port	Audio Mini Jack 3.5mm				
	Audio	SPDIF / Audio Mini Jack 3.5mm (for headphones)				
	Output Terminals	Speaker Rating				
Audio	Integrated 5W x 2	Integrated 10W x 2				
POWER CONSUMPTION	On (Typ/Max Brightness/All Max)	31W/41W/80W	72W/84W/130W	109W/129W/180W	105W/125W/180W	144W/174W/220W
	Network Standby	2W				
	Standby	0.5W				
	Current Rating	0.9A - 0.4A @ 100V - 240V	1.5A - 0.6A @ 100V - 240V	2.1A - 0.8A @ 100V - 240V	2.1A - 0.8A @ 100V - 240V	2.5A - 1.0A @ 100V - 240V
PHYSICAL SPECIFICATIONS	Bezel Width (L/R, T/B)	12.5mm/12.5mm/12.5mm/13.9mm			13.0mm/13.0mm/13.0mm/14.4mm	
	Net Dimensions (Without Stand; W x H x D)	28.61 x 16.63 x 2.64 in. 726.6 x 422.4 x 67.1 mm*	38.3 x 22.04 x 2.80 in. 970.2 x 559.8 x 71.0 mm	43.42 x 24.98 x 2.82 in. 1102.8 x 634.4 x 71.6 mm	48.76 x 27.98 x 2.83 in. 1238.6 x 710.8 x 72.0 mm	57.38 x 32.83 x 2.87 in. 1457.5 x 883.9 x 73.0 mm
	Net Weight (Without Stand)	5.7kg / 12.5lbs.	10.2kg / 22.4lbs.	12.1kg / 26.7lbs.	16.8kg / 37.0lbs.	23.3kg / 51.3lbs.
	VESA Hole Configuration	100 x 100	200 x 400		400 x 600	
ENVIRONMENTAL CONDITIONS	Operating Temperature	0 - 40 °C / 32 - 104 °F				
	Operating Humidity	20-80% (without condensation)				
	Operating Altitude	0 - 3000m (0 - 9843ft)				
LIMITED WARRANTY	3 years Advanced Replacement***					
ADDITIONAL FEATURES	Energy Star 8.0, Naviset Administrator 2 Compatible, Wake on Video Signal, ON/Off Schedule Function, Built-In Closed-Captioning (TTS), V-Chip Functionality, USB Media Player (UHD Support except for E328), Integrated Speakers, HDR Gamma, IP Addressable, External Control through RS232, Crestron Connected Compatible					
SHIPS WITH	3.0m AC Power Cable, 3.0m HDMI Cable, IR Remote Control, Batteries					
OPTIONAL ACCESSORIES	Table Top Stand (SF-32E2), All OPS PC's when coupled with the OPS-DOCK			Table Top Stand (ST-55E), All OPS PC's when coupled with the OPS-DOCK		

* E238: 4K Signal is downscaled and displayed at FHD

** LAN and RS-232C communication is unilateral when the display is in standby. The only supported command in this mode is Power On. Once on, the display will send feedback information. Ping via IP address is available in standby

*** Warranty restrictions apply. Contact your representative for details.

- 1 LAN port (RJ-45)
- 2 RS-232C (9-pin D-SUB)
- 3 USB Type-C port (power supply 5 W/3 A)
- 4 Headphone terminal (stereo mini jack)
- 5 Digital audio output terminal
- 6 AV input terminal
- 7 HDMI1 (ARC), HDMI2, HDMI3 In
- 8 VGA In (15-pin D-SUB)
- 9 Audio input terminal (stereo mini jack)
- 10 USB Type-A port
- 11 ANT / Cable



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Q-SYS Core 8 Flex

KEY FEATURES

- 64 x 64 networked audio channels (Q-LAN / AES67)
- Eight on-board Flex channels and GPIO
- 8 x AEC (acoustic echo cancellation) processors
- up to 32 x 32 Dante audio channels (8 x 8 included)
- USB AV bridging (8 x 8 audio + Q-SYS camera support)
- External USB audio device host
- Supports up to 2 VoIP softphone instances
- Full featured Q-SYS Control engine
- Dual gigabit ethernet ports with assignable application resources offering any combination of VoIP, Q-LAN Control, Q-LAN audio or network redundancy
- Internal power supply
- 1U half-width, includes mounting hardware



Q-SYS Core 8 Flex

Analog + Network I/O Processor

Introducing the Q-SYS Core 8 Flex audio, video and control (AV&C) processor, which extends the applications of the Q-SYS Ecosystem into a wider range of smaller-scale installations across corporate, higher education, healthcare and beyond. Built on the same foundational technology as the rest of the Q-SYS processor portfolio, including the best-in-class Q-SYS Core 110f, the Core 8 Flex is designed for applications with lower network channel capacity and/or targeted processing requirements.

Core 8 Flex offers onboard analog audio I/O and GPIO plus network AV&C processing, and like all Q-SYS Core processors, the Core 8 Flex delivers features and functionality at the software level, including acoustic echo cancellation (AEC), wide-area paging, video routing, and a full featured control engine without the need for dedicated control processors.

ONBOARD ANALOG I/O PLUS NETWORK I/O

In addition to its 64 x 64 network audio I/O capacity, the Core 8 Flex offers eight on-board Flex channels and eight GPIO on-ramps to integrate analog audio and control devices into the Q-SYS Ecosystem

RIGHTSIZED. UNCOMPROMISED.

Rather than deploying an AV&C processor with unused analog I/O that occupies a full rack space, Core 8 Flex offers a smaller, space-efficient solution with the right amount of analog I/O. However, it does not compromise on functionality; instead it delivers a fully-integrated and customized Q-SYS experience, from paging and background music distribution to control, automation and beyond (the same feature set as the larger Cores in the processor portfolio).

OPTIMIZED FOR THE MEETING SPACE

While it can be used across multiple installation types, Core 8 Flex provides the AV infrastructure to enable full room web conference integration, particularly for larger, more challenging spaces. It features USB integration with all major web conferencing applications, eight channels of acoustic echo cancellation (AEC), two VoIP softphones, Software-based Dante to enable modern microphones, and a full-featured control engine for third-party device integration.

REDUCE COMPLEXITY AND IMPROVE SCALABILITY WITH THE Q-SYS ECOSYSTEM

The Q-SYS Core 8 Flex joins a growing Ecosystem of AV&C processors built on a flexible software foundation that deliver features and functionality without relying on dedicated, single-purpose hardware. Like all Q-SYS Cores, the Core 8 Flex lets integrators take full advantage of the same Q-SYS software suite to design and configure systems, and end users can benefit from a more holistic user experience as a result of all native Q-SYS peripherals, and the system's ability to scale your system without having to rip-and-replace your configuration file.

Certified for

Microsoft Teams



works with
Google Meet

Q-SYS Core 8 Flex

AUDIO INPUTS

Phantom power	+48 VDC, 10 mA per input max
A/D-D/A converters	24 bit
Sample rate	48 kHz
Input Frequency Response	
20 Hz to 20 kHz @ +24dBu	+0.05 dB / -0.5 dB
Input THD+N @ 1kHz	
@ +24 dBu sensitivity & +24 dBu input	< 0.1%
@ +24 dBu sensitivity & +10 dBu input	< 0.0015%
@ +10 dBu sensitivity & +8 dBu input	< 0.001%
@ -10 dBu sensitivity & -10.5 dBu input	< 0.001%
@ -39 dBu sensitivity & -39.5 dBu input	< 0.007%
Input to Input Crosstalk @ 1 kHz	
@ +24 dBu sensitivity	110 dB typical, 90 dB Max
@ +10 dBu sensitivity	105 dB typical, 90 dB Max
@ -10 dBu sensitivity	100 dB typical, 90 dB Max
@ -39 dBu sensitivity	75 dB typical
Input Dynamic Range	
@ +24 dBu sensitivity	> 109.5 dB
@ +10 dBu sensitivity	> 106.4 dB
Input Common Mode Noise Rejection	
@ +24 dBu sensitivity	< 51, 20 Hz - 3 kHz < 43, 20 Hz - 10 kHz < 36, 20 Hz - 20 kHz
@ +10 dBu sensitivity	< 57, 20 Hz - 3 kHz < 47, 20 Hz - 10 kHz < 41, 20 Hz - 20 kHz
@ -10 dBu sensitivity	< 67, 20 Hz - 3 kHz < 58, 20 Hz - 10 kHz < 53, 20 Hz - 20 kHz
@ -39 dBu sensitivity	< 60, 20 Hz - 3 kHz < 54, 20 Hz - 10 kHz < 50, 20 Hz - 20 kHz
Input impedance (balanced)	7.2k Ω nominal
Input sensitivity range (1 dB steps)	-39 dBu minimum to +24 dBu maximum



Q-SYS Core 8 Flex

AUDIO OUTPUTS

Output Frequency

20 Hz to 20 kHz @ all settings	+ 0.5 / -0.3 dB
Output THD	0.005% typical, +20 dBu max output level
EIN (no weighting, 20 Hz to 20 kHz)	< -121 dB
Output crosstalk @ 1 kHz	> 100 dB typical, 90 dB max
Output dynamic range	> 108 dB
Output impedance (balanced)	332 Ω

CHANNEL CAPACITY

Q-LAN channels	64 x 64
Dante channels	8 x 8 (included); up to 32 x 32 with optical license
AEC channels	8
WAN / media stream channels	12 x 12
Network peripherals	32 (includes native Q-SYS cameras, I/O, NV, TSCs, paging stations, Extensions and plugins with their "Is Managed" property set to "Yes". It does not include Streaming I/O, Loudspeakers, Scripts or plugins with their "Is Managed" property set to "No".)
Audio recording / playback	4 ch recording / 16 ch playback (expandable to 32 ch with optional license - available Spring 2021)
Media drive capacity	Approximately 16 GB on the default drive (subject to change; upgrade options are available)

CONTROL

RS 232	2 ports
GPIO	8 x 8

USB INPUTS & OUTPUTS

USB B or C (audio)

Bit depth	16 bit
Channel count	8 x 8
Sample rate	48 kHz
USB Audio Device Hosting	Support for standard USB headset, speakerphone on USB type A connection (one device at a time)

Input

Sample rate	48 k or 16 k, mono
Resolution	8-bit, 16-bit, 24-bit, 32-bit, float
Format	little-endian, signed or unsigned

Output

Sample rate	48 k only, stereo
Resolution	8-bit, 16-bit, 24-bit, 32-bit, float
Format	little-endian, signed or unsigned

PHYSICAL

Product dimensions (L x W x H)	11.3 x 8.7 x 1.7 in (286.5 x 220 x 43.7 mm)
Product weight	4.0 lb (1.8 kg)
Shipping box dimensions (L x W x H)	15.0 x 13.3 x 3.1 in (381.0 x 336.6 x 79.5 mm)
Shipping weight	6.4 lb (2.9 kg)

Q-SYS Core 8 Flex

ENVIRONMENTAL & SAFETY

Power consumption	40 W typical	
Operating temperature	0-50°C	
Percent relative humidity, non-condensing	5 to 85%	
BTU/heat load	110 BTU/hour	
Compliance	FCC Part 68 / TIA-968-B (USA) ES203 021, CE, RoHS (Europe), PTC200 (New Zealand) NOM-151-SCTI (Mexico) JATE (Japan)	UL and C-UL listed (USA & Canada) AC (Eurasian Customs Union) PSTN01 (Taiwan) Industry Canada CS-03 (Canada) AS/ACIF S002 and RCM (Australia) ANATEL Resolution 473 (Brazil)



Q-SYS I/O-USB Bridge

KEY FEATURES

- Driverless USB 2.0 connection
- Built for BYOD/BYOM
- Resolution up to 1080p
- Emulates webcam video and AEC speakerphone audio over single USB connection.
- Emulates computer soundcard
- Bridges audio and video over Q-LAN to USB
- Route USB HID events across Q-LAN networks
- External Power Supply or PoE enabled (802.3af)



Q-SYS I/O-USB Bridge

Q-SYS AV Bridging Endpoint

Stop hassling with the limitations of distributing media over USB. The Q-SYS I/O-USB Bridge puts USB access right where you need it, close to every device that needs Q-SYS audio and/or video. The Q-SYS I/O-USB Bridge is the latest addition to the Q-SYS Platform and allows users to integrate networked Q-SYS conference camera video alongside industry leading audio processing into soft-codec applications via USB connection, all without installing any drivers.

The new I/O USB Bridge and IP PTZ Cameras will offer a brand new networked AV paradigm to soft codec AV integration in medium to large meeting room systems. Because Q-SYS is a fully networked platform, the I/O-USB Bridge can act as an in-rack or Bring-Your-Own-Device (BYOD) endpoint for Q-SYS PTZ-IP camera feeds and audio processed with Q-SYS acoustic echo cancellation (AEC).

BENEFITS

Put USB endpoints anywhere: USB extenders are costly, difficult to integrate and sometimes introduce distortion. With the I/O-USB Bridge, users can locate the USB connection where they need to, without installing extenders.

Flexible: Allows users to select from any Q-SYS conferencing camera and seamlessly switch between cameras while maintaining a single USB connection to the host PC.

Scalable: Whether the application calls for one computer or several computers, Q-SYS I/O-USB Bridges can connect shared audio and video streams to multiple computers without additional equipment.

Certified for

Microsoft Teams



works with
Google Meet

Q-SYS USB I/O Bridge

Specifications

Supported resolutions	MJPEG: 1080p: 30, 15 fps 720p: 30, 15 fps 360p: 30, 15 fps 180p: 30, 15 fps
USB connection	USB 2.0 (UVC/UAC) driverless connection for Windows and OS X devices Emulates webcam video driver, AEC speakerphone audio driver, and multichannel soundcard driver over single USB connection
Power supply	PoE Enabled Device (802.3af) or 12 v DC (1A)
Dimensions	1 x 3.35 x 7.2 in (25 x 85 x 183 mm)
Weight	1.1 lb (500 g)

*Specifications are subject to change without notice

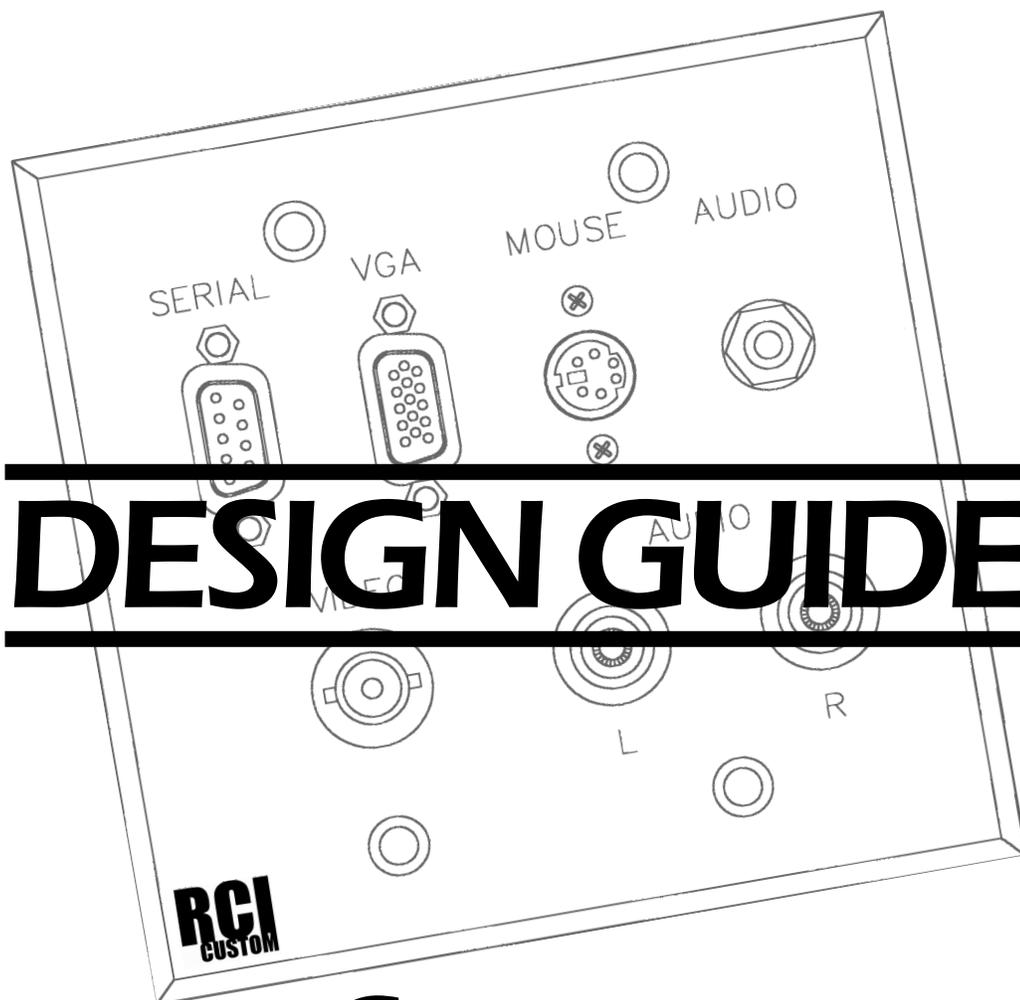


Q-SYS IP Camera not included



RCI
CUSTOM

**Custom
Products**



DESIGN GUIDE

**Custom
Plates and Panels**

www.rcicustom.com

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Custom Design & Layout

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Presenting the RCI Custom Design Guide.

Simple and easy to use, the new RCI Custom Design Guide has been created through the suggestions, comments, and input of the many contractors and systems design engineers who rely on RCI Systems every day for what we really are - a "Custom Solutions" company.

Our design guide is set up to cater to the A/V contractors more common need for customized audio and video products. Easy step by step instruc-

tions, custom design templates and parts legends, and our experienced Customer Service Department will help you to create the perfect plate or panel every time.

Use this booklet as a catalyst for your own creativity. Some of our most successful standard products have been created from an idea for either improving an available product, or developing something new to solve an existing problem. With custom metal pro-

cessing, unlimited custom finishes, rack mount chassis, and engraving and silk screening services all available under one roof, almost anything is possible!

RCI wants to be the company you think of first for **any custom audio or video need**. While it is well known that we specialize in custom wall plates and rack panels, we welcome the opportunity to help you engineer, design, and fabricate just about any audio or video product you may need.

RCI Custom Products - your one stop "Custom Solution" shop!

Updates On The Web!

Get the most current version of the RCI Custom Design Guide by downloading it from the World Wide Web. It's Fast, Free and Easy!

www.rcicustom.com

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Products
CUSTOM

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1/99

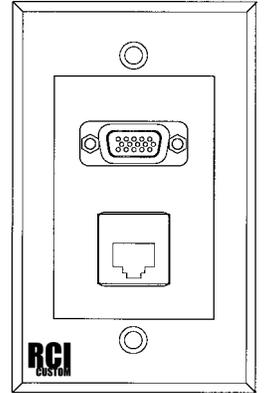
Custom Design and Layout

The following custom design section was created as an aid to the more common need for custom audio and video plates and panels. Blank plate and panel design templates are provided, along with drawings of several of the most commonly used connectors and devices to help you throughout the design process.

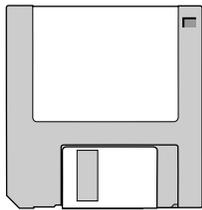
HERE'S WHAT YOU DO.

- Make copies of the pages with blank plates and parts on them.
- Draw or trace the desired device onto the copy of the selected blank plate or panel, or —
- Cut and paste the desired device onto the copy of the selected blank plate or panel.
- Indicate the quantity, series, engraving, and finish requirements for each particular plate.
- Add any graphics information (i.e., logo placement or specialty graphics)
- Fax your drawing to RCI for a quote.

IT'S THAT SIMPLE!



Computer Design



For those systems design consultants and established customers who prefer to create their custom plates and panels by computer, you may qualify for our CAD drawing files package. Please contact your local RCI Custom Products Sales Representative, or call RCI Customer Service at 1-800-546-4724 for details.

RCI Graphics

Add your company name, logo, service phone number or other information to your finished product, even on orders as small as five pieces! See page 4 for details on how easy it is to use silk screening, engraving and electro luminescence. Screen charges and per piece costs are available in our price list as well as by quote.



Custom Wiring

RCI can deliver your plates and panels complete with pigtails or pre-wired to connectors, ready for easy installation. Save time and money associated with labor costs by letting RCI's skilled technicians do the work for you. Simply provide your wiring requirements in writing and we'll do the rest.

For other wire or cable needs, consult our full line catalog or call an RCI Customer Service Representative at 800-546-4724.



For catalogs, literature, and the most current product information available, call or visit our website at:

www.rcicustom.com • 800-546-4724

Customize and identify your finished product with your company name or logo.

GRAPHICS

Graphics and text are the most obvious and notable custom option available to our customers. Professionally created and produced graphics add a “pro” touch to any plate or panel — a touch that says “quality” to the end user.

Use graphics in the form of engraving, silk screening, or illumination through electro luminescence. Graphics can be used to show the functionality of any plate or panel, to distinctly identify a project, or to subtly advertise your business with the display of your company logo, name, service contact information, or phone numbers.

Graphics and text are affordable even in small quantities, and can be added to nearly any custom product produced at RCI. Choose the graphics option that best suits your particular project, and let RCI do the rest!

Engraving

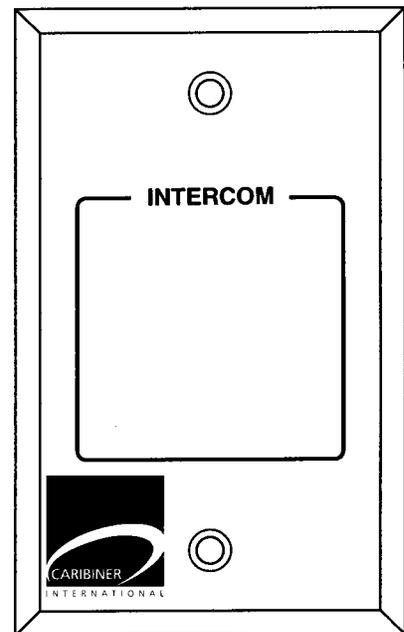
- Most cost effective for small runs or orders with changing or progressive graphic requirements.
- Permanent and durable
- Multiple font choices, as well as Braille available
- * Appropriate for basic logo reproduction

Silk Screening

- Most cost effective for large runs or similar product
- Consistent professional appearance
- Quick production time
- Excellent reproduction of complex and multicolored logos

Illumination / Electro Luminescence

- Clearly visible graphics in low light areas
- Perfect for theatres, conference & meeting rooms, production studios, etc.
- E.L. lamps far out last incandescent bulbs
- Can be powered with AC or DC voltage



IT'S EASY TO CUSTOMIZE!

Simply send us your camera ready artwork (1:1 ratio or higher), and we'll do the rest! If you don't have camera ready art, call us for help. Graphics or text can be added to your order through RCI graphics services, at an additional cost. Single and multi-colored logo reproductions are welcome!

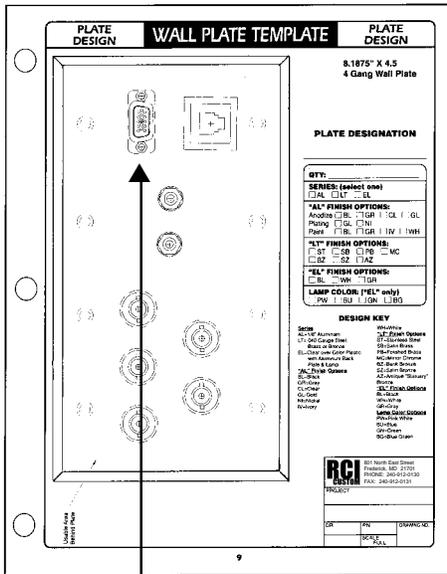


**For Updates &
Catalog Info ...**

www.rcicustom.com

STEP 1.

Make copies of wall plates and full scale symbols located on pages 10 & 11.

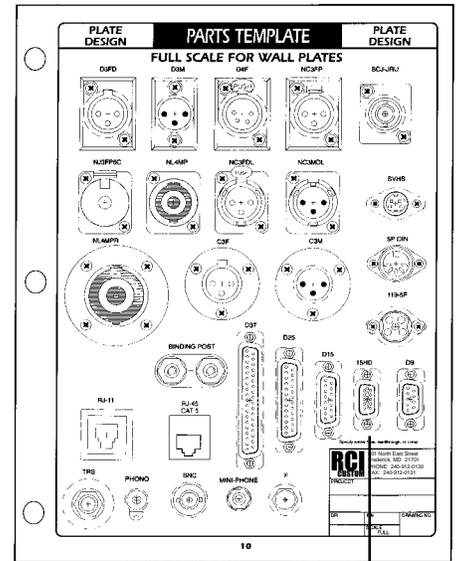


STEP 2.

Trace or Paste

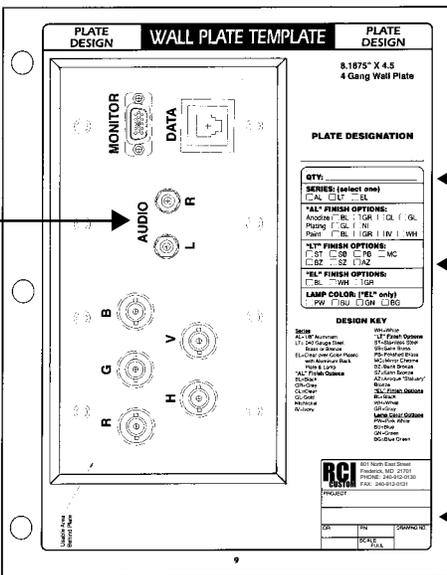
Place the symbol page under the copy of the wall plate and trace the devices on the blank plate at the desired location
OR
 cut out the appropriate devices from the copy of the symbol page and paste them on the blank plate at the desired location.

Be sure to note device sizes and usable area of wall plate.



STEP 3.

Write in text to be engraved on plate. If the plate has multiple quantities, indicate subsequent engraving.

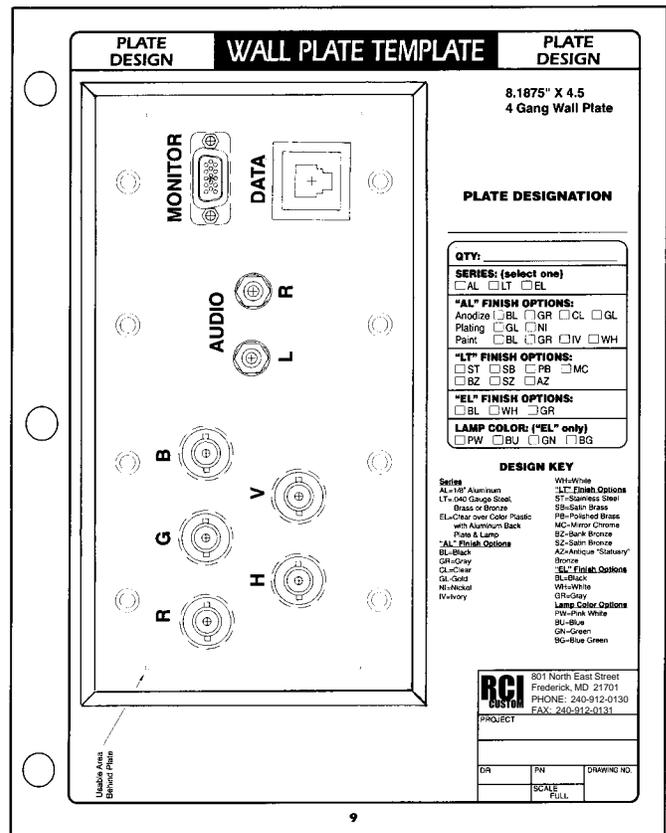


STEP 5.

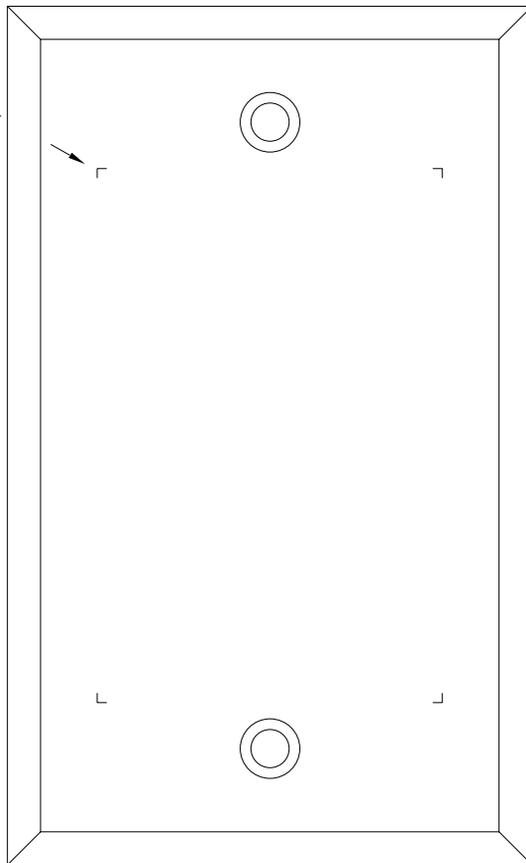
Fax completed plate design to our AVD Sales Department for quotation.

STEP 4.

Indicate plate designation, quantity, finish type, and any other additional engraving or silkscreening requirements. Fill title block with appropriate information, if desired.



Usable Area
Behind Plate



**2.75" X 4.5
1 Gang Wall Plate**

PLATE DESIGNATION

DESIGN KEY

- Series**
 AL=1/8" Aluminum
 LT=.040 Gauge Steel,
 Brass or Bronze
 EL=Clear over Color Plastic with
 Aluminum Back Plate & Lamp
- "AL" Finish Options**
 BL=Black
 GR=Gray
 CL=Clear
 GL=Gold
 NI=Nickel
 IV=Ivory
 WH=White
- "LT" Finish Options**
 ST=Stainless Steel
 SB=Satin Brass
 PB=Polished Brass
 MC=Mirror Chrome
 BZ=Bank Bronze
 SZ=Satin Bronze
 AZ=Antique "Statuary" Bronze
- "EL" Finish Options**
 BL=Black
 WH=White
 GR=Gray
- Lamp Color Options**
 PW=Pink White
 BU=Blue
 GN=Green
 BG=Blue Green

QTY: _____

SERIES: (select one)

AL LT EL

"AL" FINISH OPTIONS:

Anodize BL GR CL GL
 Plating GL NI
 Paint BL GR IV WH

"LT" FINISH OPTIONS:

ST SB PB MC
 BZ SZ AZ

"EL" FINISH OPTIONS:

BL WH GR

LAMP COLOR: ("EL" only)

PW BU GN BG

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DR	PN	DRAWING NO.
SCALE FULL		

4.5" X 4.5"
2 Gang Wall Plate

Usable Area Behind Plate

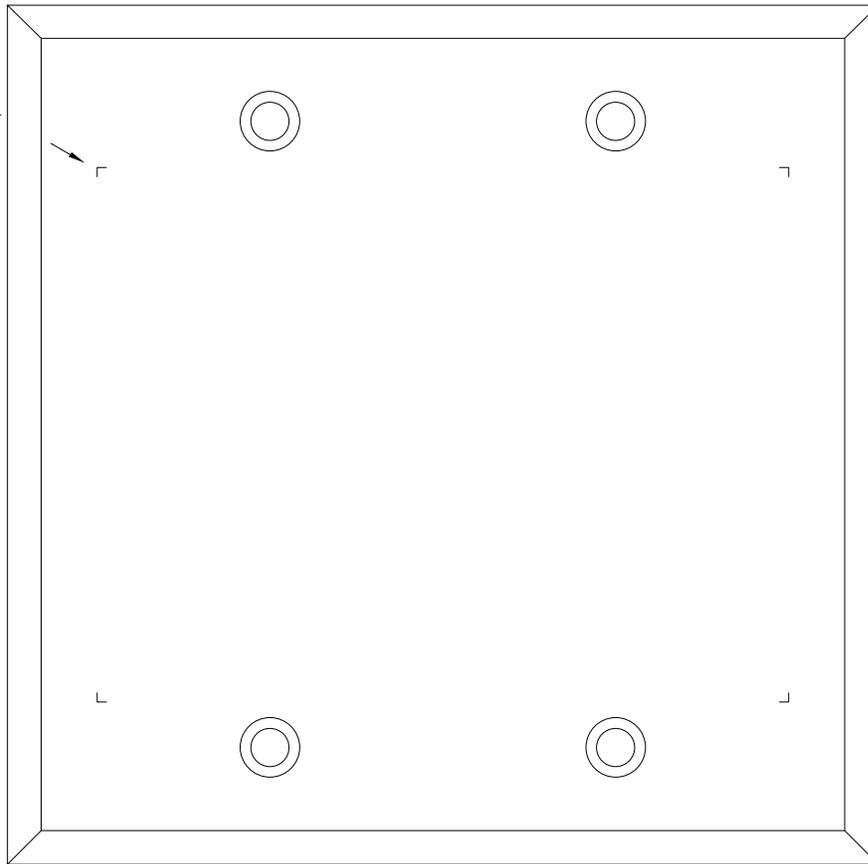


PLATE DESIGNATION

DESIGN KEY

Series

AL=1/8" Aluminum
LT=.040 Gauge Steel,
Brass or Bronze
EL=Clear over Color Plastic with
Aluminum Back Plate & Lamp

"AL" Finish Options

BL=Black
GR=Gray
CL=Clear
GL=Gold
NI=Nickel
IV=Ivory
WH=White

"LT" Finish Options

ST=Stainless Steel
SB=Satin Brass
PB=Polished Brass
MC=Mirror Chrome
BZ=Bank Bronze
SZ=Satin Bronze
AZ=Antique "Statuary" Bronze

"EL" Finish Options

BL=Black
WH=White
GR=Gray

Lamp Color Options

PW=Pink White
BU=Blue
GN=Green
BG=Blue Green

QTY: _____

SERIES: (select one)

AL LT EL

"AL" FINISH OPTIONS:

Anodize BL GR CL GL
Plating GL NI
Paint BL GR IV WH

"LT" FINISH OPTIONS:

ST SB PB MC
 BZ SZ AZ

"EL" FINISH OPTIONS:

BL WH GR

LAMP COLOR: ("EL" only)

PW BU GN BG

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FAX 301-620-9103

PROJECT		
DR	PN	DRAWING NO.
SCALE FULL		

**6.375" X 4.5
3 Gang Wall Plate**

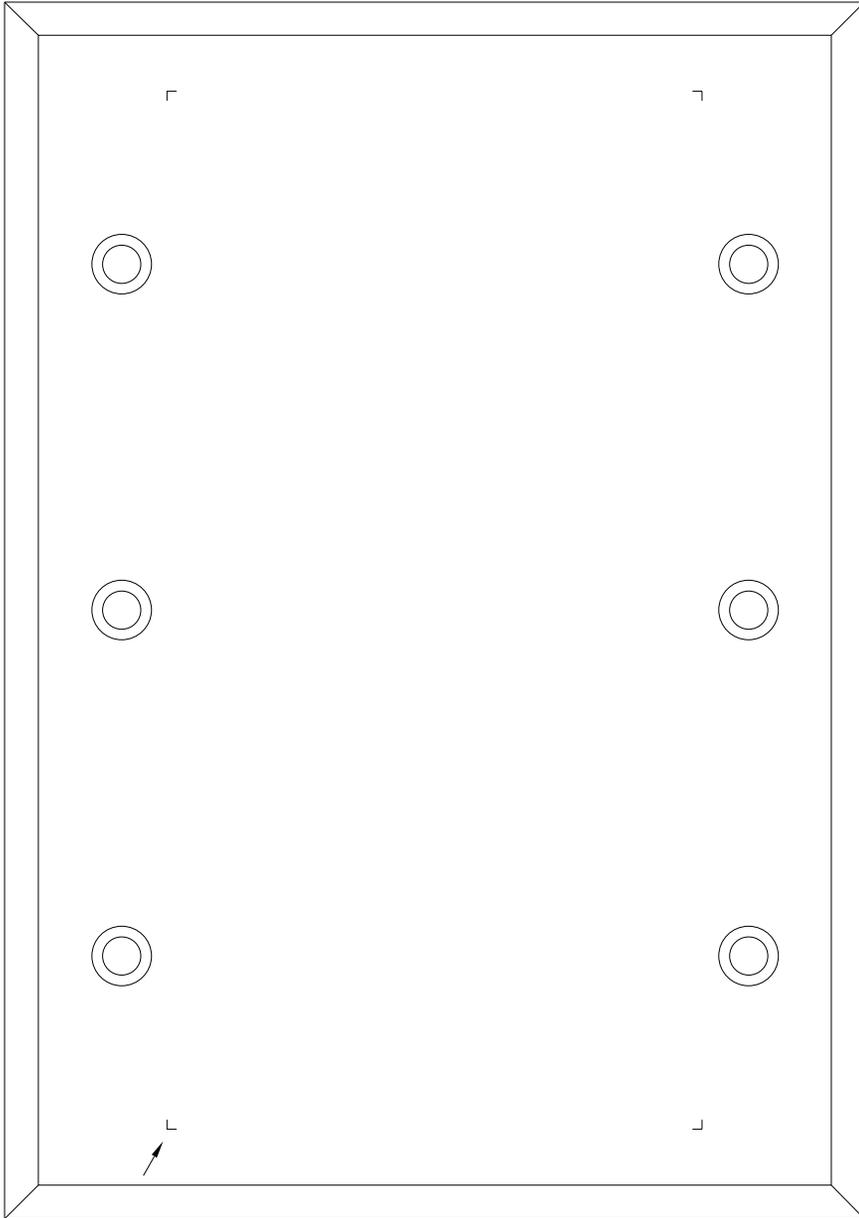


PLATE DESIGNATION

QTY: _____
SERIES: (select one) <input type="checkbox"/> AL <input type="checkbox"/> LT <input type="checkbox"/> EL
"AL" FINISH OPTIONS: Anodize <input type="checkbox"/> BL <input type="checkbox"/> GR <input type="checkbox"/> CL <input type="checkbox"/> GL Plating <input type="checkbox"/> GL <input type="checkbox"/> NI Paint <input type="checkbox"/> BL <input type="checkbox"/> GR <input type="checkbox"/> IV <input type="checkbox"/> WH
"LT" FINISH OPTIONS: <input type="checkbox"/> ST <input type="checkbox"/> SB <input type="checkbox"/> PB <input type="checkbox"/> MC <input type="checkbox"/> BZ <input type="checkbox"/> SZ <input type="checkbox"/> AZ
"EL" FINISH OPTIONS: <input type="checkbox"/> BL <input type="checkbox"/> WH <input type="checkbox"/> GR
LAMP COLOR: ("EL" only) <input type="checkbox"/> PW <input type="checkbox"/> BU <input type="checkbox"/> GN <input type="checkbox"/> BG

DESIGN KEY

- | | |
|--|--|
| <p>Series
 AL=1/8" Aluminum
 LT=.040 Gauge Steel,
 Brass or Bronze
 EL=Clear over Color Plastic with
 Aluminum Back Plate & Lamp</p> <p>"AL" Finish Options
 BL=Black
 GR=Gray
 CL=Clear
 GL=Gold
 NI=Nickel
 IV=Ivory
 WH=White</p> | <p>"LT" Finish Options
 ST=Stainless Steel
 SB=Satin Brass
 PB=Polished Brass
 MC=Mirror Chrome
 BZ=Bank Bronze
 SZ=Satin Bronze
 AZ=Antique "Statuary" Bronze</p> <p>"EL" Finish Options
 BL=Black
 WH=White
 GR=Gray</p> <p>Lamp Color Options
 PW=Pink White
 BU=Blue
 GN=Green
 BG=Blue Green</p> |
|--|--|

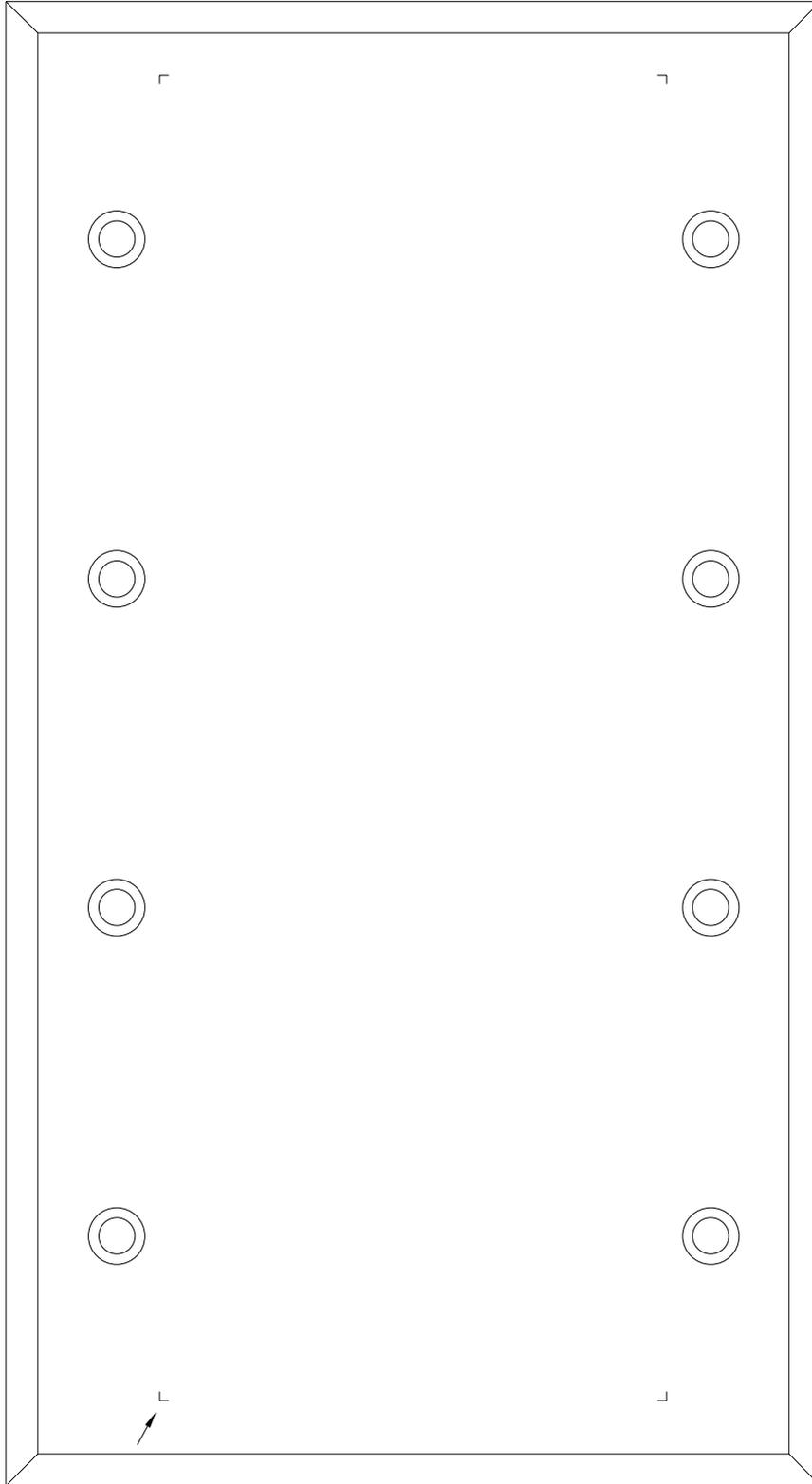
Usable Area
Behind Plate

		801 North East Street Frederick, MD 21701 PHONE 301-620-9130 FAX 301-620-9103	
		PROJECT _____	
DR _____	PN _____	DRAWING NO. _____	
SCALE FULL			

**PLATE
DESIGN**

WALL PLATE TEMPLATE

**PLATE
DESIGN**



Usable Area
Behind Plate

**8.1875" X 4.5
4 Gang Wall Plate**

PLATE DESIGNATION

QTY: _____
SERIES: (select one) <input type="checkbox"/> AL <input type="checkbox"/> LT <input type="checkbox"/> EL
"AL" FINISH OPTIONS: Anodize <input type="checkbox"/> BL <input type="checkbox"/> GR <input type="checkbox"/> CL <input type="checkbox"/> GL Plating <input type="checkbox"/> GL <input type="checkbox"/> NI Paint <input type="checkbox"/> BL <input type="checkbox"/> GR <input type="checkbox"/> IV <input type="checkbox"/> WH
"LT" FINISH OPTIONS: <input type="checkbox"/> ST <input type="checkbox"/> SB <input type="checkbox"/> PB <input type="checkbox"/> MC <input type="checkbox"/> BZ <input type="checkbox"/> SZ <input type="checkbox"/> AZ
"EL" FINISH OPTIONS: <input type="checkbox"/> BL <input type="checkbox"/> WH <input type="checkbox"/> GR
LAMP COLOR: ("EL" only) <input type="checkbox"/> PW <input type="checkbox"/> BU <input type="checkbox"/> GN <input type="checkbox"/> BG

DESIGN KEY

Series

AL=1/8" Aluminum
LT=.040 Gauge Steel,
Brass or Bronze
EL=Clear over Color Plastic
with Aluminum Back
Plate & Lamp

"AL" Finish Options

BL=Black
GR=Gray
CL=Clear
GL=Gold
NI=Nickel
IV=Ivory
WH=White

"LT" Finish Options

ST=Stainless Steel
SB=Satin Brass
PB=Polished Brass
MC=Mirror Chrome
BZ=Bank Bronze
SZ=Satin Bronze
AZ=Antique "Statuary"
Bronze

"EL" Finish Options

BL=Black
WH=White
GR=Gray

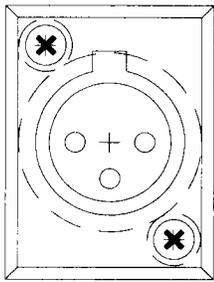
Lamp Color Options

PW=Pink White
BU=Blue
GN=Green
BG=Blue Green

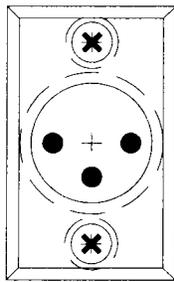
RCI CUSTOM			801 North East Street Frederick, MD 21701 PHONE 301-620-9130 FAX 301-620-9103
PROJECT			
DR	PN	DRAWING NO.	
	SCALE FULL		

FULL SCALE FOR WALL PLATES

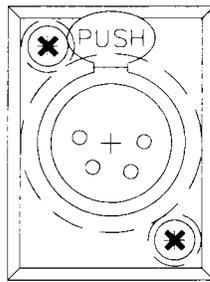
D3FD



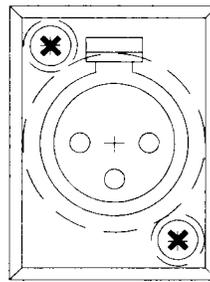
D3M



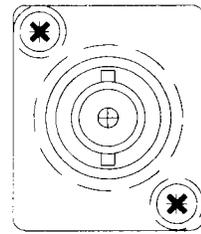
D4F



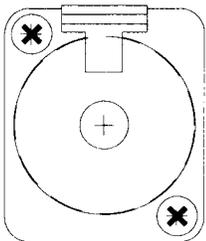
NC3FP



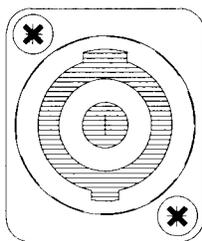
BCJ-JRU



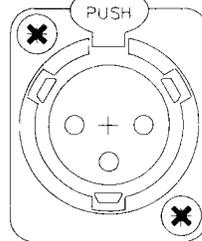
NJ3FP6C



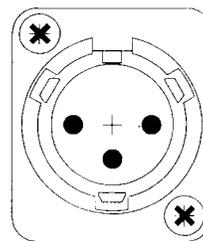
NL4MP



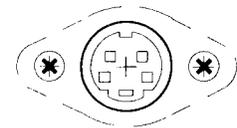
NC3FDL



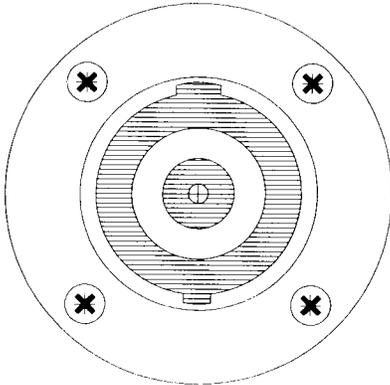
NC3MDL



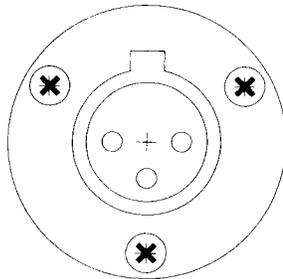
SVHS



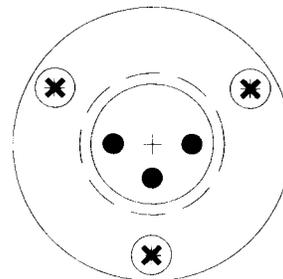
NL4MPR



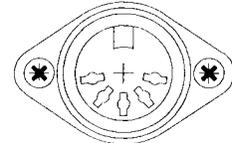
C3F



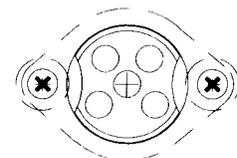
C3M



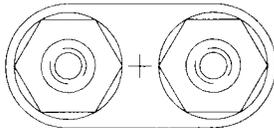
5P DIN



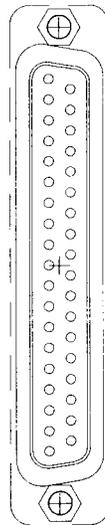
119-5F



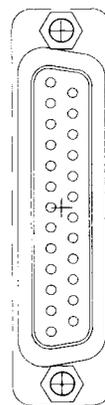
BINDING POST



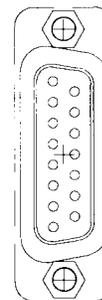
D37



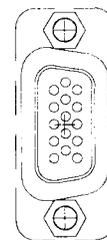
D25



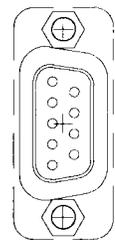
D15



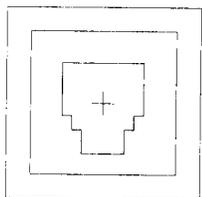
15HD



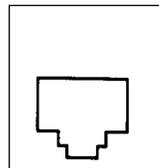
D9



RJ-11

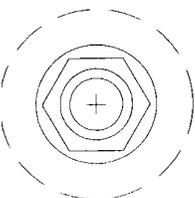


RJ-45
CAT 5

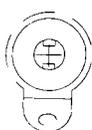


Specify solder type, feedthrough, or crimp.

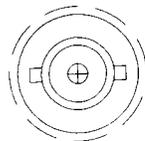
TRS



PHONO



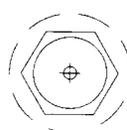
BNC



MINI-PHONE



F



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Frederick, MD 21701
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FAX 301-620-9103

PROJECT

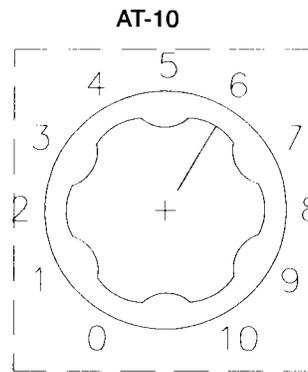
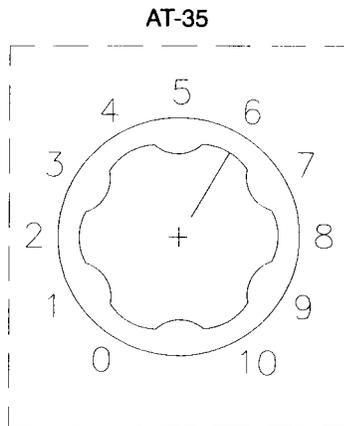
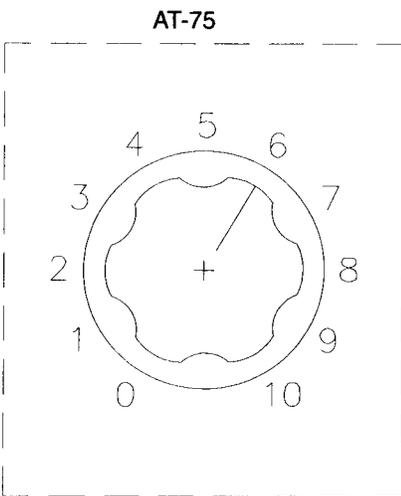
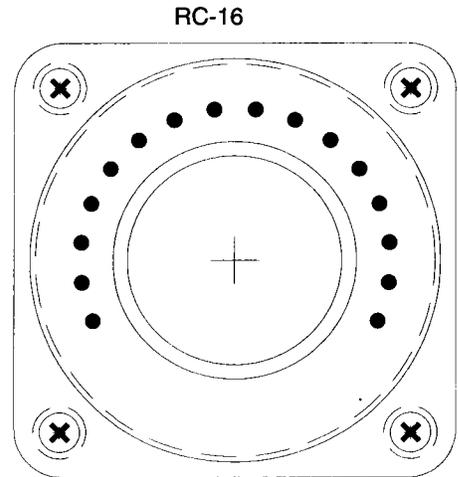
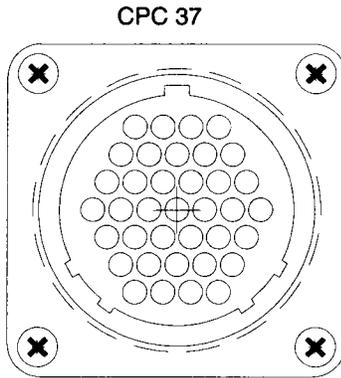
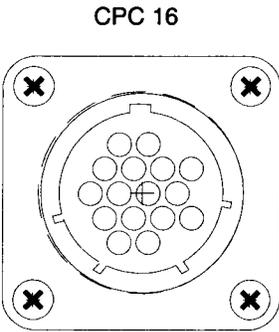
DR

PN

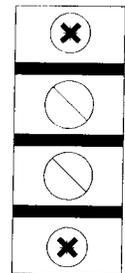
DRAWING NO.

SCALE
FULL

FULL SCALE FOR WALL PLATES

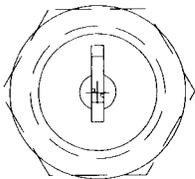


BARRIER STRIP

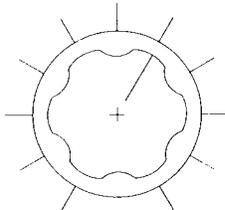


C&K 7201J37

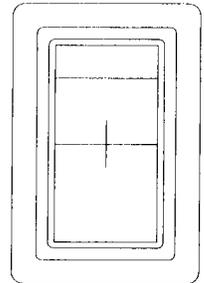
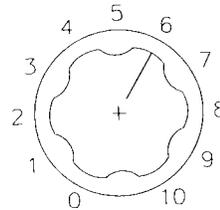
C&K KEY SW



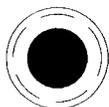
ROTARY SW W/ 7/8" KNOB



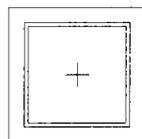
POT W/ 7/8" KNOB



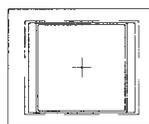
Momentary Pushbutton SPST 903



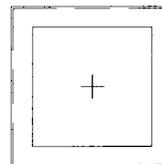
EAO 31



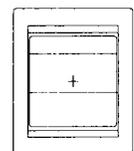
C&K 8121



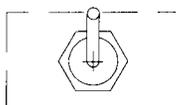
DIALIGHT 554



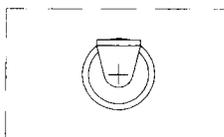
C&K 7201J51



ALCO MTA



C-H 8373



LED



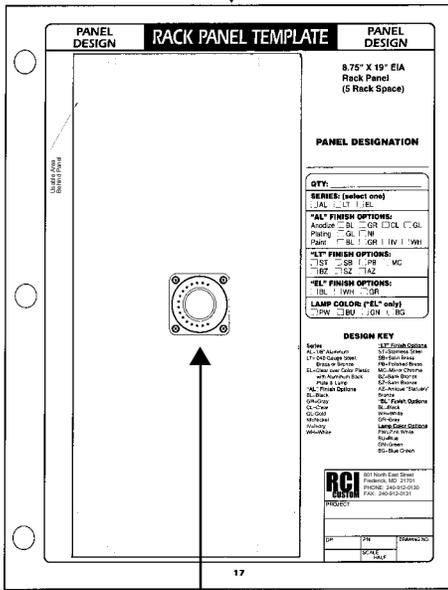
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Frederick, MD 21701
PHONE 301-620-9130
FAX 301-620-9103

PROJECT		
DR	PN	DRAWING NO.
SCALE FULL		

Refer to RCI Custom Catalog pages 24-27 for additional connector options.

STEP 1.

Make copies of rack panels and half scale symbols on pages 18 & 19.



STEP 2.

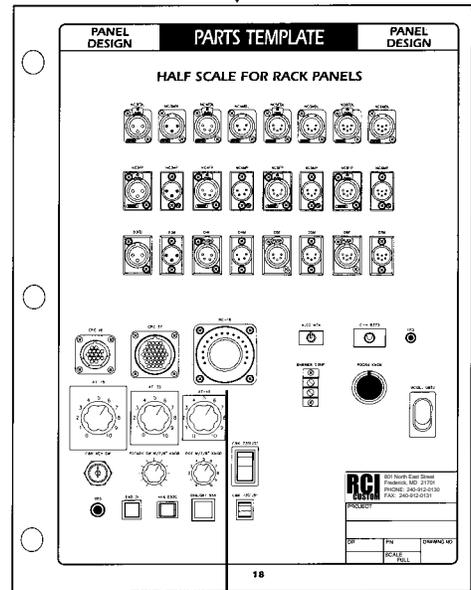
Trace or Paste

Place the symbol page under the copy of the rack panel and trace the devices on the blank plate at the desired location

OR

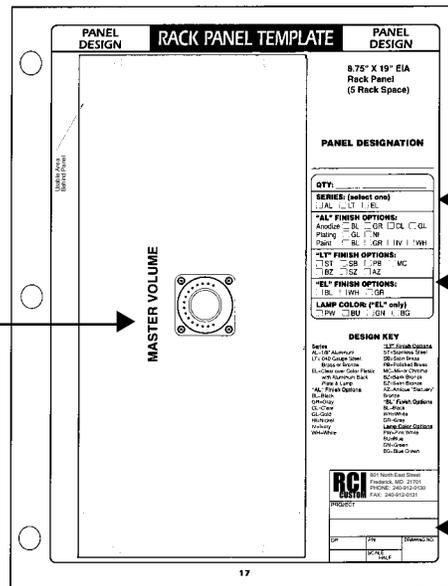
cut out the appropriate devices from the copy of the symbol page and paste them on the blank plate at the desired location.

*Be sure to note device sizes and usable area of rack panel.



STEP 3.

Write in text to be engraved on panel. If the panel has multiple quantities, indicate subsequent engraving.

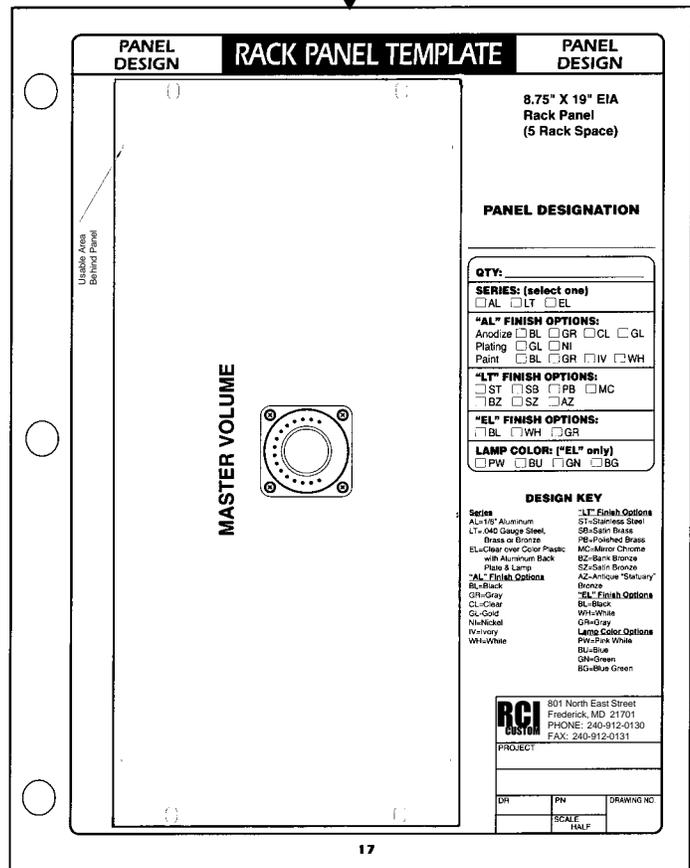


STEP 4.

Indicate panel designation, quantity, and finish type, and any other additional engraving or silkscreening requirements. Fill title block with appropriate information, if desired.

STEP 5.

Fax completed panel design to our AVD Sales Department for quotation.



1.75" X 19" EIA
Rack Panel
(1 Rack Space)

Usable Area
Behind Panel

PANEL DESIGNATION

QTY: _____
SERIES: (select one) <input type="checkbox"/> AL <input type="checkbox"/> LT <input type="checkbox"/> EL
"AL" FINISH OPTIONS: Anodize <input type="checkbox"/> BL <input type="checkbox"/> GR <input type="checkbox"/> CL <input type="checkbox"/> GL Plating <input type="checkbox"/> GL <input type="checkbox"/> NI Paint <input type="checkbox"/> BL <input type="checkbox"/> GR <input type="checkbox"/> IV <input type="checkbox"/> WH
"LT" FINISH OPTIONS: <input type="checkbox"/> ST <input type="checkbox"/> SB <input type="checkbox"/> PB <input type="checkbox"/> MC <input type="checkbox"/> BZ <input type="checkbox"/> SZ <input type="checkbox"/> AZ
"EL" FINISH OPTIONS: <input type="checkbox"/> BL <input type="checkbox"/> WH <input type="checkbox"/> GR
LAMP COLOR: ("EL" only) <input type="checkbox"/> PW <input type="checkbox"/> BU <input type="checkbox"/> GN <input type="checkbox"/> BG

DESIGN KEY

Series

AL=1/8" Aluminum
LT=.040 Gauge Steel,
Brass or Bronze
EL=Clear over Color Plastic with
Aluminum Back Plate & Lamp

"AL" Finish Options

BL=Black
GR=Gray
CL=Clear
GL=Gold
NI=Nickel
IV=Ivory
WH=White

"LT" Finish Options

ST=Stainless Steel
SB=Satin Brass
PB=Polished Brass
MC=Mirror Chrome
BZ=Bank Bronze
SZ=Satin Bronze
AZ=Antique "Statuary" Bronze

"EL" Finish Options

BL=Black
WH=White
GR=Gray

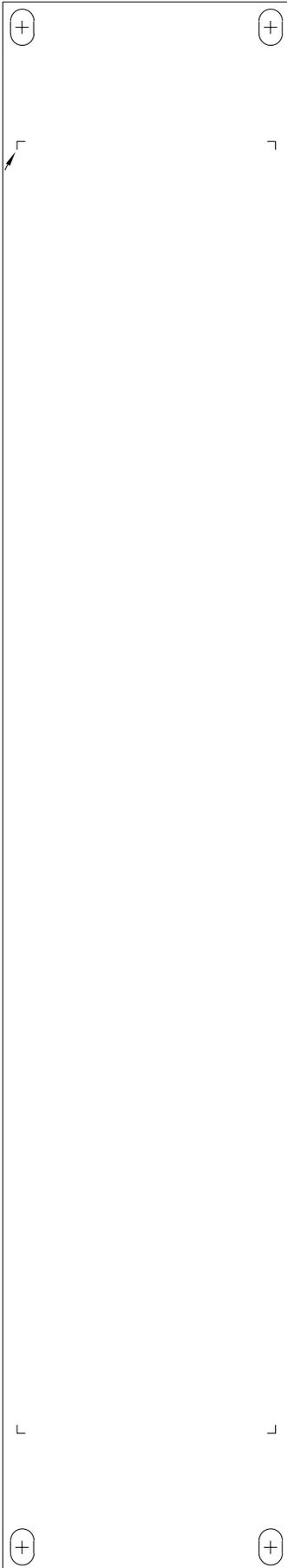
Lamp Color Options

PW=Pink White
BU=Blue
GN=Green
BG=Blue Green

RCI CUSTOM		801 North East Street Frederick, MD 21701 PHONE 301-620-9130 FAX 301-620-9103
PROJECT _____		
DR _____	PN _____	DRAWING NO. _____
SCALE HALF		

**3.5" X 19" EIA
Rack Panel
(2 Rack Space)**

Usable Area
Behind Panel



PANEL DESIGNATION

QTY: _____
SERIES: (select one) <input type="checkbox"/> AL <input type="checkbox"/> LT <input type="checkbox"/> EL
"AL" FINISH OPTIONS: Anodize <input type="checkbox"/> BL <input type="checkbox"/> GR <input type="checkbox"/> CL <input type="checkbox"/> GL Plating <input type="checkbox"/> GL <input type="checkbox"/> NI Paint <input type="checkbox"/> BL <input type="checkbox"/> GR <input type="checkbox"/> IV <input type="checkbox"/> WH
"LT" FINISH OPTIONS: <input type="checkbox"/> ST <input type="checkbox"/> SB <input type="checkbox"/> PB <input type="checkbox"/> MC <input type="checkbox"/> BZ <input type="checkbox"/> SZ <input type="checkbox"/> AZ
"EL" FINISH OPTIONS: <input type="checkbox"/> BL <input type="checkbox"/> WH <input type="checkbox"/> GR
LAMP COLOR: ("EL" only) <input type="checkbox"/> PW <input type="checkbox"/> BU <input type="checkbox"/> GN <input type="checkbox"/> BG

DESIGN KEY

Series

AL=1/8" Aluminum
 LT=.040 Gauge Steel,
 Brass or Bronze
 EL=Clear over Color Plastic
 with Aluminum Back
 Plate & Lamp

"AL" Finish Options

BL=Black
 GR=Gray
 CL=Clear
 GL=Gold
 NI=Nickel
 IV=Ivory
 WH=White

"LT" Finish Options

ST=Stainless Steel
 SB=Satin Brass
 PB=Polished Brass
 MC=Mirror Chrome
 BZ=Bank Bronze
 SZ=Satin Bronze
 AZ=Antique "Statuary"
 Bronze

"EL" Finish Options

BL=Black
 WH=White
 GR=Gray

Lamp Color Options

PW=Pink White
 BU=Blue
 GN=Green
 BG=Blue Green

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PROJECT			
DR	PN	DRAWING NO.	
	SCALE HALF		

**5.25" X 19" EIA
Rack Panel
(3 Rack Space)**

Usable Area
Behind Panel



PANEL DESIGNATION

QTY: _____
SERIES: (select one) <input type="checkbox"/> AL <input type="checkbox"/> LT <input type="checkbox"/> EL
"AL" FINISH OPTIONS: Anodize <input type="checkbox"/> BL <input type="checkbox"/> GR <input type="checkbox"/> CL <input type="checkbox"/> GL Plating <input type="checkbox"/> GL <input type="checkbox"/> NI Paint <input type="checkbox"/> BL <input type="checkbox"/> GR <input type="checkbox"/> IV <input type="checkbox"/> WH
"LT" FINISH OPTIONS: <input type="checkbox"/> ST <input type="checkbox"/> SB <input type="checkbox"/> PB <input type="checkbox"/> MC <input type="checkbox"/> BZ <input type="checkbox"/> SZ <input type="checkbox"/> AZ
"EL" FINISH OPTIONS: <input type="checkbox"/> BL <input type="checkbox"/> WH <input type="checkbox"/> GR
LAMP COLOR: ("EL" only) <input type="checkbox"/> PW <input type="checkbox"/> BU <input type="checkbox"/> GN <input type="checkbox"/> BG

DESIGN KEY

- | | |
|---|---|
| Series
AL=1/8" Aluminum
LT=.040 Gauge Steel,
Brass or Bronze
EL=Clear over Color Plastic
with Aluminum Back
Plate & Lamp | "LT" Finish Options
ST=Stainless Steel
SB=Satin Brass
PB=Polished Brass
MC=Mirror Chrome
BZ=Bank Bronze
SZ=Satin Bronze
AZ=Antique "Statuary"
Bronze |
| "AL" Finish Options
BL=Black
GR=Gray
CL=Clear
GL=Gold
NI=Nickel
IV=Ivory
WH=White | "EL" Finish Options
BL=Black
WH=White
GR=Gray
Lamp Color Options
PW=Pink White
BU=Blue
GN=Green
BG=Blue Green |

RCI CUSTOM			801 North East Street Frederick, MD 21701 PHONE 301-620-9130 FAX 301-620-9103
PROJECT			
DR	PN	DRAWING NO.	
	SCALE HALF		

**7" X 19" EIA
Rack Panel
(4 Rack Space)**

PANEL DESIGNATION

QTY: _____

SERIES: (select one)

AL LT EL

"AL" FINISH OPTIONS:

Anodize BL GR CL GL
 Plating GL NI
 Paint BL GR IV WH

"LT" FINISH OPTIONS:

ST SB PB MC
 BZ SZ AZ

"EL" FINISH OPTIONS:

BL WH GR

LAMP COLOR: ("EL" only)

PW BU GN BG

DESIGN KEY

Series

AL=1/8" Aluminum
 LT=.040 Gauge Steel,
 Brass or Bronze
 EL=Clear over Color Plastic
 with Aluminum Back
 Plate & Lamp

"AL" Finish Options

BL=Black
 GR=Gray
 CL=Clear
 GL=Gold
 NI=Nickel
 IV=Ivory
 WH=White

"LT" Finish Options

ST=Stainless Steel
 SB=Satin Brass
 PB=Polished Brass
 MC=Mirror Chrome
 BZ=Bank Bronze
 SZ=Satin Bronze
 AZ=Antique "Statuary"
 Bronze

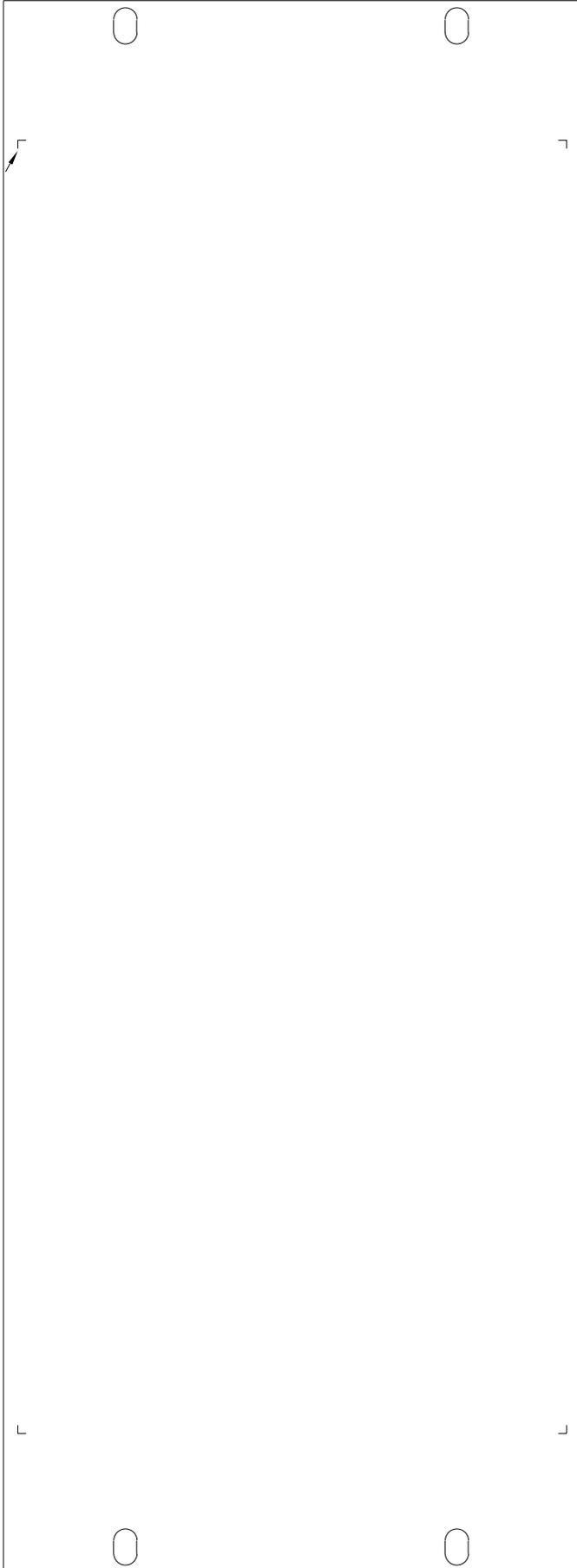
"EL" Finish Options

BL=Black
 WH=White
 GR=Gray

Lamp Color Options

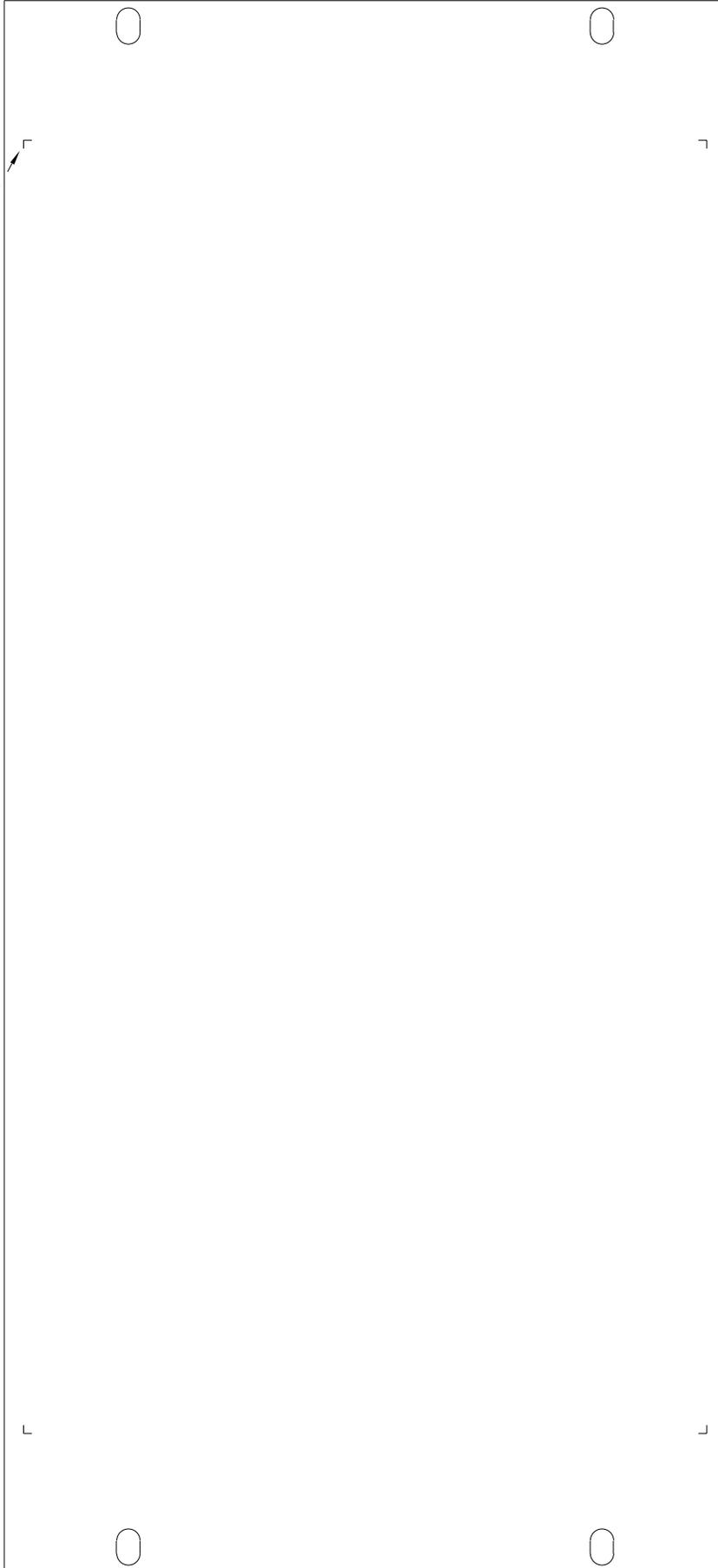
PW=Pink White
 BU=Blue
 GN=Green
 BG=Blue Green

Usable Area
Behind Panel



 801 North East Street Frederick, MD 21701 PHONE 301-620-9130 FAX 301-620-9103		
DR	PN	DRAWING NO.
SCALE HALF		

Usable Area Behind Panel



**8.75" X 19" EIA
Rack Panel
(5 Rack Space)**

PANEL DESIGNATION

QTY: _____
SERIES: (select one) <input type="checkbox"/> AL <input type="checkbox"/> LT <input type="checkbox"/> EL
"AL" FINISH OPTIONS: Anodize <input type="checkbox"/> BL <input type="checkbox"/> GR <input type="checkbox"/> CL <input type="checkbox"/> GL Plating <input type="checkbox"/> GL <input type="checkbox"/> NI Paint <input type="checkbox"/> BL <input type="checkbox"/> GR <input type="checkbox"/> IV <input type="checkbox"/> WH
"LT" FINISH OPTIONS: <input type="checkbox"/> ST <input type="checkbox"/> SB <input type="checkbox"/> PB <input type="checkbox"/> MC <input type="checkbox"/> BZ <input type="checkbox"/> SZ <input type="checkbox"/> AZ
"EL" FINISH OPTIONS: <input type="checkbox"/> BL <input type="checkbox"/> WH <input type="checkbox"/> GR
LAMP COLOR: ("EL" only) <input type="checkbox"/> PW <input type="checkbox"/> BU <input type="checkbox"/> GN <input type="checkbox"/> BG

DESIGN KEY

Series

AL=1/8" Aluminum
LT=.040 Gauge Steel,
Brass or Bronze
EL=Clear over Color Plastic
with Aluminum Back
Plate & Lamp

"AL" Finish Options

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GR=Gray
CL=Clear
GL=Gold
NI=Nickel
IV=Ivory
WH=White

"LT" Finish Options

ST=Stainless Steel
SB=Satin Brass
PB=Polished Brass
MC=Mirror Chrome
BZ=Bank Bronze
SZ=Satin Bronze
AZ=Antique "Statuary"
Bronze

"EL" Finish Options

BL=Black
WH=White
GR=Gray

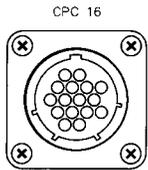
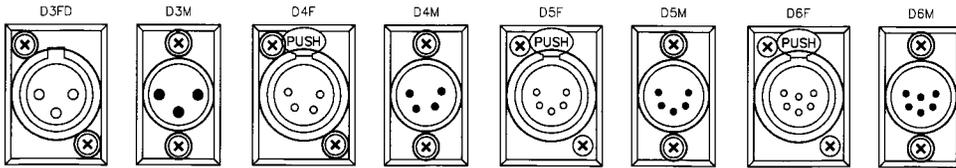
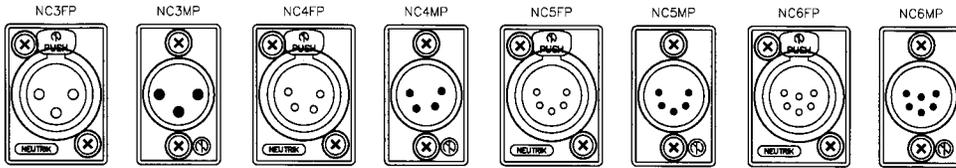
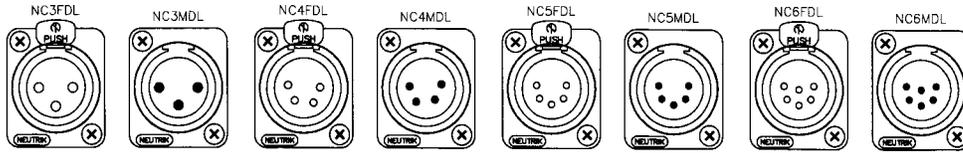
Lamp Color Options

PW=Pink White
BU=Blue
GN=Green
BG=Blue Green

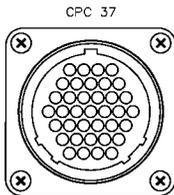
RCI
CUSTOM
801 North East Street
Frederick, MD 21701
PHONE 301-620-9130
FAX 301-620-9103

PROJECT		
DR	PN	DRAWING NO.
SCALE HALF		

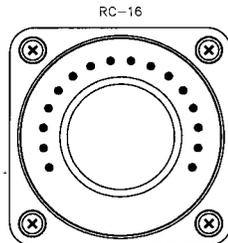
HALF SCALE FOR RACK PANELS



CPC 16



CPC 37



RC-16



ALCO MTA

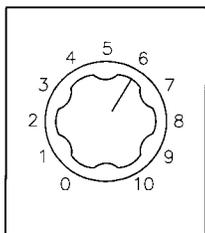


C-H 8373

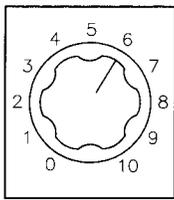


LED

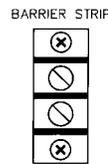
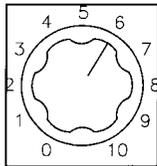
AT-75



AT-35



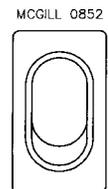
AT-10



BARRIER STRIP



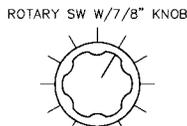
ROGAN KNOB



MCGILL 0852



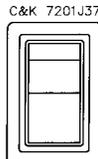
C&K KEY SW



ROTARY SW W/7/8" KNOB



POT W/7/8" KNOB



C&K 7201J37



Momentary Pushbutton SPST 903



EAO 31



NKK EB20



DIALIGHT 554

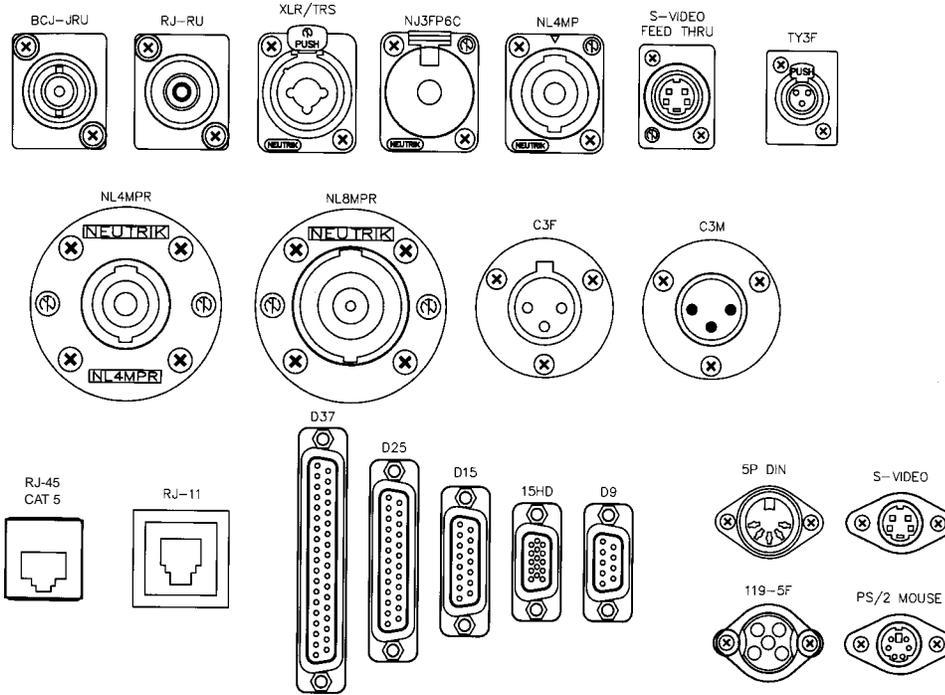


C&K 7201J51

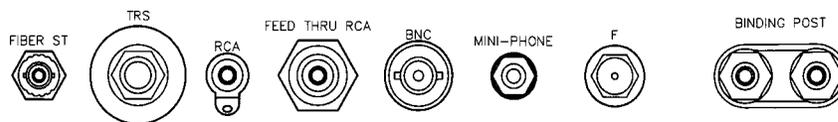
RCI CUSTOM
 801 North East Street
 Frederick, MD 21701
 PHONE 301-620-9130
 FAX 301-620-9103

PROJECT		
DR	PN	DRAWING NO.
SCALE HALF		

HALF SCALE FOR RACK PANELS



Specify solder type, feedthrough, or crimp.



Refer to RCI Custom Catalog pages 24-27 for additional connector options.

RCI CUSTOM			801 North East Street Frederick, MD 21701 PHONE 301-620-9130 FAX 301-620-9103
PROJECT			
DR	PN	DRAWING NO.	
	SCALE HALF		

CUSTOM CHASSIS

MOUNTS TO 19" EIA STANDARD RACK PANEL

STANDARD SIZES

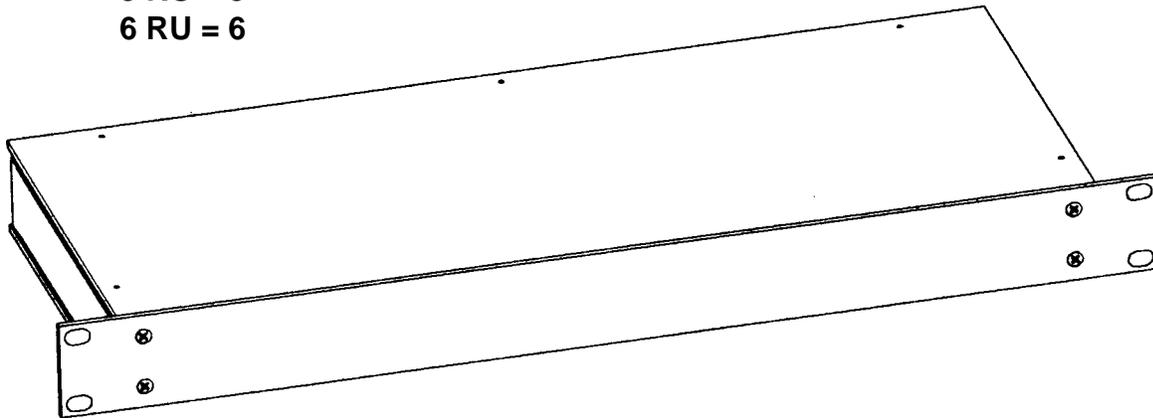
CH-X-Y

HEIGHT = "X"
PANEL SIZE

- 1 RU = 1
- 2 RU = 2
- 3 RU = 3
- 4 RU = 4
- 5 RU = 5
- 6 RU = 6

DEPTH = "Y"
ACTUAL SIZE

- 5 = 5"
- 7 = 7"
- 9 = 9"



SPECIFICATIONS

WIDTH (ASSEMBLED) - 17"

MATERIAL - 1/16" T6 ALUMINUM

FINISH - GOLD ALODINE

FRONT AND REAR PANELS MOUNT VIA #6-32
SCREWS INTO PEM-NUTS FASTENED INTO
THE SIDE PANELS.

TOP AND BOTTOM ARE FASTENED VIA #4
SHEET METAL SCREWS.

NOTE - FRONT PANEL MUST BE ORDERED SEPARATELY.
SEE PAGES 12-17



MXA910

Version: 2.1 (2020-J)

Table of Contents

MXA910	3	Polar Response	6
Specifications	3	Frequency Response	7
Lobe Sensitivity	5	IP Ports and Protocols	7

MXA910

Specifications

All specifications measured from narrow lobe width. Values for all widths are within ± 3 dB of these specifications unless otherwise noted.

General

Lobe Width

Adjustable	Narrow	35 degrees
	Medium	45 degrees
	Wide	55 degrees

Connector Type

RJ45

Power Requirements

Power over Ethernet (PoE), Class 0

Power Consumption

9W, maximum

Weight

5.3 kg (11.75 lbs)

Product Dimensions

MXA910xx	603.8 x 603.8 x 54.69 mm (23.77 x 23.77 x 2.15 in.) H x W x D
MXA910xx-60CM	593.8 x 593.8 x 54.69 mm (23.38 x 23.38 x 2.15 in.) H x W x D
MXA910W-A	603.8 x 603.8 x 54.69 mm (23.77 x 23.77 x 2.15 in.) H x W x D
MXA910W-US	603.8 x 603.8 x 54.69 mm (23.77 x 23.77 x 2.15 in.) H x W x D

control application

HTML5 Browser-based or Shure Designer

Plenum Rating

UL2043 (Suitable for Air Handling Spaces)

Dust Protection

IEC 60529 IP5X Dust Protected

Operating Temperature Range

-6.7°C (20°F) to 40°C (104°F)

Storage Temperature Range

-29°C (-20°F) to 74°C (165°F)

Audio

Frequency Response

180 to 17,000 Hz

AES67 or Dante Digital Output

Channel Count	10 total channels (8 independent transmit channels, 1 Automatic mixing transmit channel, 1 AEC reference in channel)
Sampling Rate	48 kHz
Bit Depth	24

Sensitivity

at 1 kHz

0.75 dBFS/Pa

Maximum SPL

Relative to 0 dBFS overload

93.25 dB SPL

Signal-To-Noise Ratio

Ref. 94 dB SPL at 1 kHz

83 dB A-weighted

Latency (Not including Dante latency)

Direct outputs	7 ms
Automix output (Includes IntelliMix processing)	18 ms

Self Noise

11 dB SPL-A

Dynamic Range

82.25 dB

Built-in Digital Signal Processing

MXA910 firmware 4.x or newer	Automatic mixing, Acoustic Echo Cancellation (AEC), Noise Reduction, Automatic Gain Control, Compressor, Delay, Equalizer (4-band Parametric), Mute, Gain (140 dB range)
MXA910 firmware 3.x or older	Automatic mixing, Echo Reduction, Equalizer (4-band Parametric), Mute, Gain (140 dB range)

Intelligibility Scale

Equivalent acoustic performance, compared to a cardioid gooseneck microphone (environment dependent)

Cardioid distance multiplied by 1.6

Acoustic Echo Cancellation Tail Length

Up to 250 ms

Networking

Cable Requirements

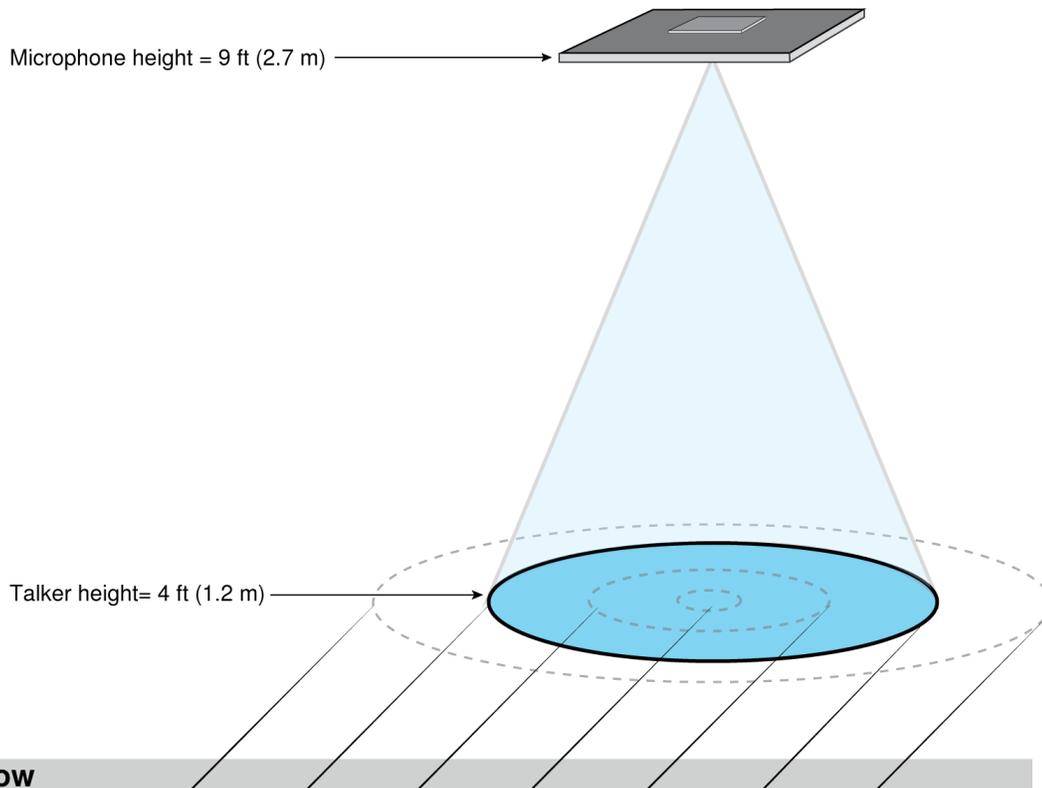
Cat 5e or higher (shielded cable recommended)

Lobe Sensitivity

The edge of the blue coverage area for each channel in the web application represents where the sensitivity reaches -6 dB. Understanding how lobe sensitivity is displayed helps to:

- Provide complete coverage in a space, either by adding lobes or changing the lobe width. This ensures the sensitivity is within 6 dB in all areas. It is acceptable for lobes to slightly overlap.
- Ensure that spacing and isolation are adequate to reduce noise and maximize automatic mixing performance.

Measured at 1 kHz, on-axis



Narrow

Centimeters	55	44	30	0	30	44	55
Inches	22	17	12	0	12	17	22
dB	-12	-6	-3	0	-3	-6	-12

Medium

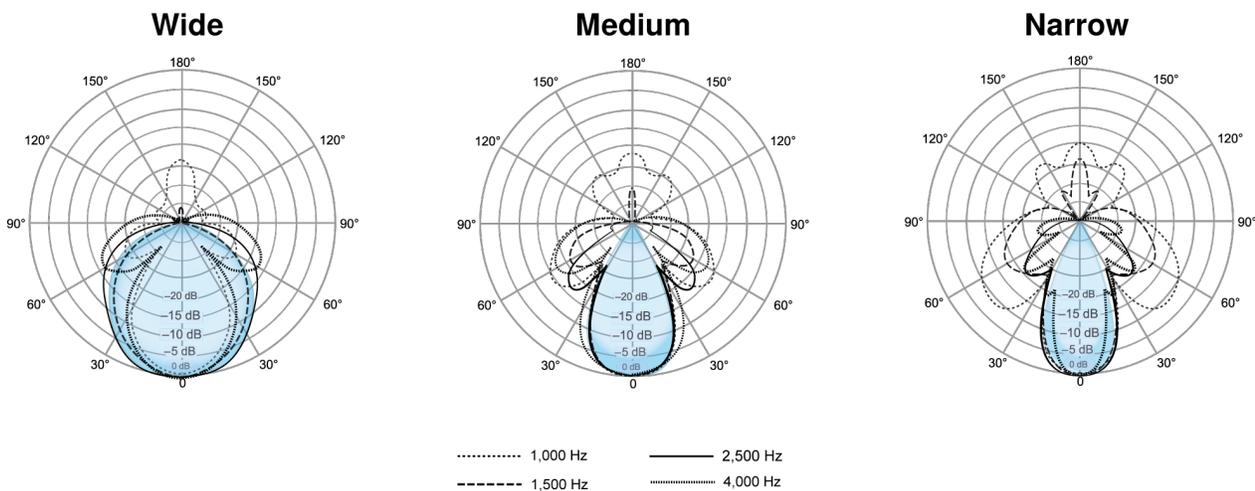
Centimeters	69	47	38	0	38	47	69
Inches	27	18	15	0	15	18	27
dB	-12	-6	-3	0	-3	-6	-12

Wide

Centimeters	92	62	44	0	44	62	92
Inches	36	24	17	0	17	24	36
dB	-12	-6	-3	0	-3	-6	-12

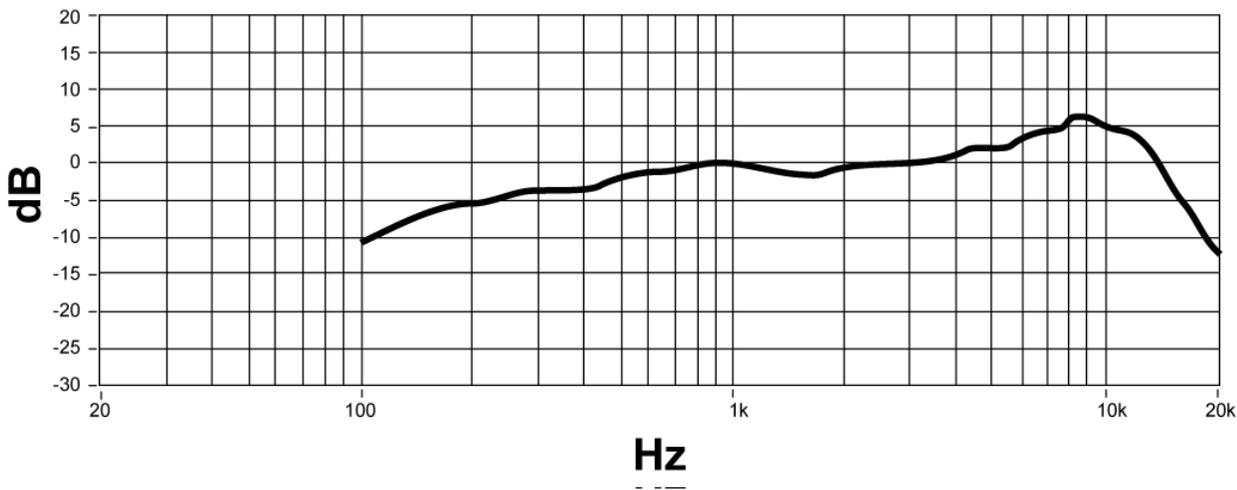
Polar Response

Polar response measured directly on-axis from a distance of 6 feet (1.83 m).



Frequency Response

Frequency response measured directly on-axis from a distance of 6 feet (1.83 m).



IP Ports and Protocols

Shure Control

Port	TCP/UDP	Protocol	Description	Factory Default
21	tcp	FTP	Required for firmware updates (otherwise closed)	Closed
22	tcp	SSH	Not supported	Closed

Port	TCP/UDP	Protocol	Description	Factory Default
23	tcp	Telnet	Standard console interface	Closed
68	udp	DHCP	Dynamic Host Configuration Protocol	Open
80*	tcp	HTTP	Required to launch embedded web server	Open
427	tcp/udp	SLP [†]	Required for inter-device communication	Open
443	tcp	HTTPS	Not supported	Closed
161	tcp	SNMP	Not supported	Closed
162	tcp	SNMP	Not supported	Closed
2202	tcp	ASCII	Required for 3rd party control strings	Open
5353	udp	mDNS [†]	Required for device discovery	Open
5568	udp	SDT [†]	Required for inter-device communication	Open
8023	tcp	Telnet	Debug console interface	Password
8180*	tcp	HTML	Required for web application	Open
8427	udp	Multicast SLP [†]	Required for inter-device communication	Open
64000	tcp	Telnet	Required for Shure firmware update	Open

Dante Audio & Controller

Port	TCP/UDP	Protocol	Description
162	udp	SNMP	Used by Dante
[319-320]*	udp	PTP [†]	Dante clocking
2203	udp	Custom	Required for packet bridge
4321, 14336-14600	udp	Dante	Dante audio
[4440, 4444, 4455]*	udp	Dante	Dante audio routing
5353	udp	mDNS [†]	Used by Dante
[8700-8706, 8800]*	udp	Dante	Dante Control and Monitoring
8751	udp	Dante	Dante Controller
16000-65536	udp	Dante	Used by Dante

*These ports must be open on the PC or control system to access the device through a firewall.

†These protocols require multicast. Ensure multicast has been correctly configured for your network.



MICROFLEX™ MXN5W-C NETWORKED LOUDSPEAKER

OVERVIEW

The Shure Microflex MXN5-C Networked Ceiling Loudspeaker provides high-quality speech reproduction for AV conferencing applications. With a low profile design optimized for easy installation in drop ceiling configurations, the MXN5 integrates seamlessly with other Shure networked PoE-enabled audio devices using the Dante audio networking protocol.

FEATURES

- Software-based configuration and control
- Design and deploy every device in your audio chain with Shure Designer System Configuration software
- SystemOn Audio Asset Management software for remote management and troubleshooting
- Shure Audio Encryption
- Dante Domain Manager compatible
- AES67 compatible

LOUDSPEAKER TECHNICAL ELEMENTS

- Pre-tuned frequency response optimized for voice intelligibility in AV Conferencing applications
- Low-profile, shallow-can design compatible with most drop ceiling installations
- 2-way driver system with 5.25 in (13.3 cm) woofer
- PoE/PoE+ enabled, eliminating the need for an outboard amplifier
- Integrated Shure DSP Utilities: EQ, delay, limiter, and signal/tone generator
- 2 Dante inputs and 1 Dante output

CLEAN DESIGN ELEMENTS

- Aesthetic design subtly blends into drop ceiling environments
- Removable magnetic and paintable grille seamlessly covers the entire loudspeaker
- Removable magnetic Shure logo
- UL 2043 plenum rated
- Tile bridge or New Construction Bracket accessories for quick and easy mounting

SPECIFICATIONS (subject to change) All specifications are within ± 3 dB unless otherwise noted.

LOUDSPEAKER DETAILS

Connector Type	RJ45
Power Requirements	Power over Ethernet (PoE Class 0) or PoE Plus (Class 4)
Weight	6.5 lbs (2.95 kg)
Product Dimensions	12 x 12 x 4 in. (304.8 x 304.8 x 101.6 mm) H x W x D
Control Software	Shure Designer
Plenum Rating	UL 2043 (Suitable for Air Handling Spaces)
Operating Temperature Range	-6.7°C (20°F) to 40°C (104°F)
Storage Temperature Range	-29°C (20°F) to 74°C (165°F)
Frequency Response (-3 dB)	120 Hz to 20 kHz
Digital Signal Processing	Delay, Limiter, Signal Generator, Equalizer (4-band Parametric)
Latency	1.5 ms (Not including Dante latency)

POWER CONSUMPTION

Power over Ethernet (PoE)	12 W maximum (11 W typical)
PoE Plus	24 W maximum (23 W typical)

MAXIMUM OUTPUT LEVEL

Power over Ethernet (PoE) @ 1 meter	92 dB SPL
PoE Plus @ 1 meter	98 dB SPL

COVERAGE ANGLE

-6 dB at 2 kHz	180 degrees
-6 dB at 10 kHz	107 degrees

Data subject to change without notice in interest of product improvements.

AVAILABLE PARTS & ACCESSORIES

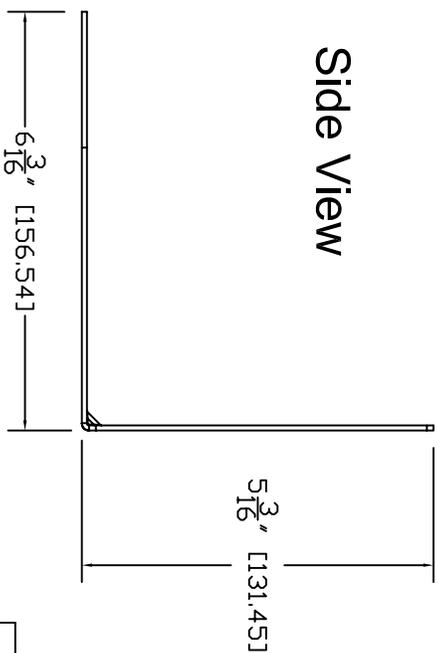
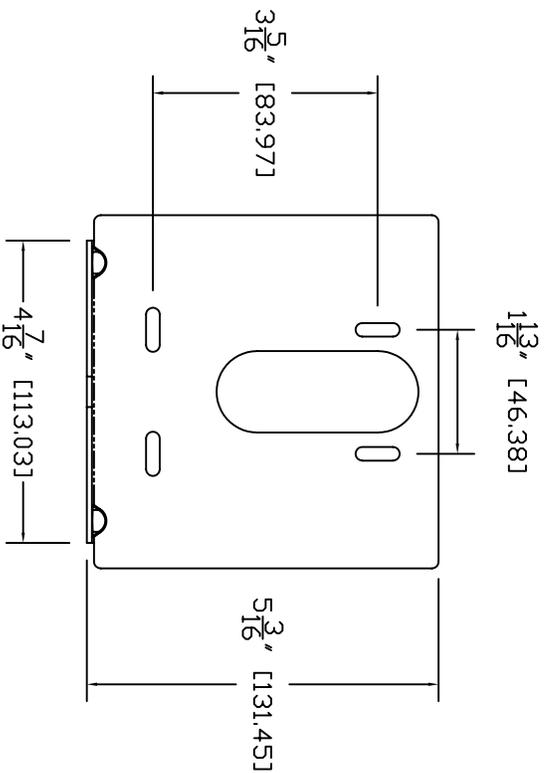
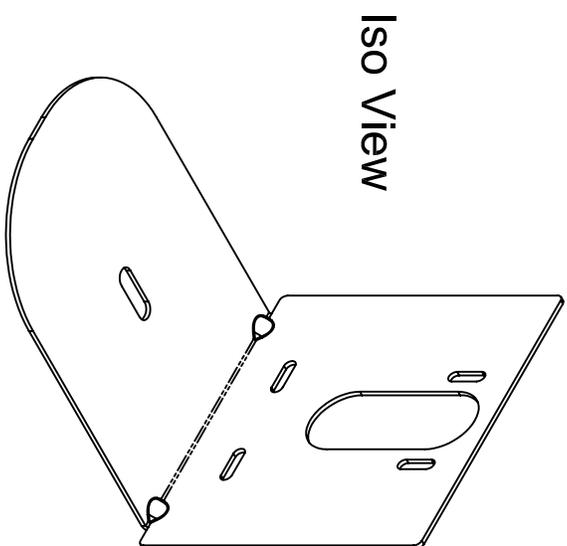
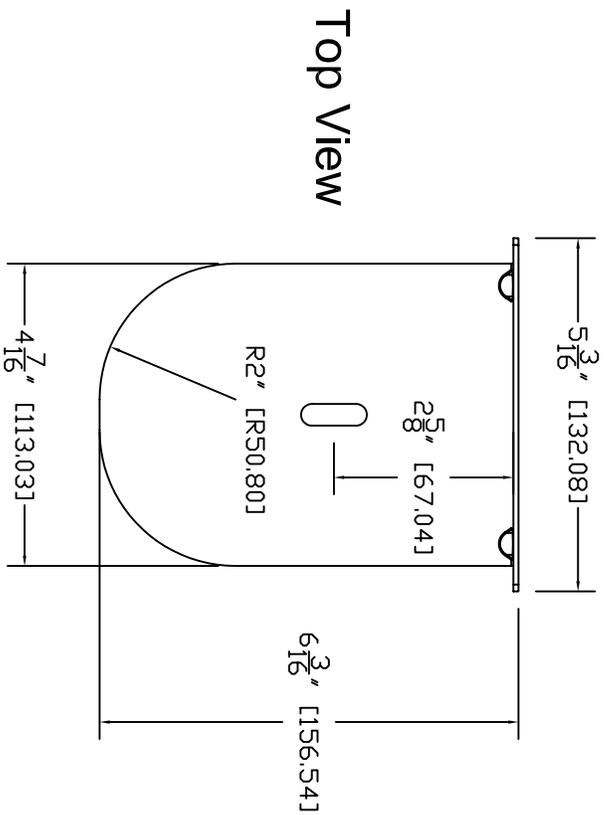
MXN5W-C	Loudspeaker
RPMXN5-C	Cover plate and flexible conduit clamp (included)
RPMXN5-G	Magnetic grille with removable Shure logo (included)
A-MXN5-TB	Tile bridge (optional)
A-MXN5-NCB	New Construction Bracket (optional)
Soft bundle SKU MXN5W-C+TB-V	Includes MXN5W-C and A-MXN5-TB



MXN5W-C
Microflex™ Networked Loudspeaker



2-way Driver
5.25" woofer



GENERAL NOTES

DIMENSIONS ARE IN INCHES (PUN) UNLESS OTHERWISE NOTED

DO NOT DISTORTIVE WITHOUT EXPRESS WRITTEN PERMISSION

IF VARIATION IS TO OUR CONTAINING ENTRIES TO ENHANCE

OUR PRODUCTS WE WILL BE RESPONSIBLE FOR THE

SPECIFICATIONS WITHOUT THEIR NOTICE OR OBLIGATION.

ADDIO THE COMPANY, INCLUDING ALL SUBJECT MATTER, IS THE PROPERTY OF ADDIO. IT IS TO BE KEPT CONFIDENTIAL AND NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE EXPRESS WRITTEN PERMISSION OF ADDIO.	
MODEL NUMBER: 535-2000-204 SERIAL NUMBER: 1461188 DATE: 02/22/07	THIS DRAWING IS THE PROPERTY OF ADDIO. IT IS TO BE KEPT CONFIDENTIAL AND NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE EXPRESS WRITTEN PERMISSION OF ADDIO.
535-2000-204 for Sony EVI-3000 DATE: 02/22/07 DRAWN: JAS CHECKED: PAR PART: PAR TITLE: CAP FOR SONY EVI-3000	THE PROFILE WILL BE MADE FOR QUANTITY 100 PZ.
SHEET: 11 TOTAL SHEETS: 11	205

DROP DOWN SERIES CAMERA MOUNTS

For Ceiling Mounting Sony® EVI-D70, EVI-D100, Canon VC-C50i, Polycom® PowerCam and LifeSize® PTZ Cameras

Model Number 535-2000-290 (12" extension)

Model Number 535-2000-291 (24" extension)

The Vaddio Drop Down Series Camera Mounts for the Sony EVI-D70, EVI-D100, Canon VC-C50i, Polycom PowerCam and LifeSize PTZ cameras is designed to allow integrators to easily install a compact PTZ camera into locations where wall mounting a camera is not possible. The key features of the Drop Down Series of Cameras are:

- Designed to fit Sony EVI-D70, EVI-D100, Canon VC-C50i, Polycom PowerCam & LifeSize PTZ cameras
- Mounting tube acts as a cable pass-thru for the Vaddio EZ Camera Cat. 5 cabling system
- Constructed from steel with black power coat paint which provides a tough, attractive and lasting finish
- Dimensions & Weight: 535-2000-290 -- 15-1/2" H x 5-1/4" W x 8-1/4" D – Weight: 6 lbs.
39.4cm H x 13.3cm W x 21cm D – Weight: 2.7 kg.
- 535-2000-291 -- 27-1/2" H x 5-1/4" W x 8-1/4" D – Weight: 7.5 lbs.
69.9cm H x 13.3cm W x 21cm D – Weight: 2.7 kg.



Figures 1 & 2:

Figure 1 (left): 12" extension with a Sony EVI-D70

Figure 2 (right): 24" extension with a Sony EVI-D70 (cameras not included)

DROP DOWN SERIES CAMERA MOUNTS

For Ceiling Mounting Vaddio HD-18, Sony EVI-HD1, TANDBERG Precision HD and Polycom EagleEye PTZ Cameras

Model Number 535-2000-292 (12" extension)

Model Number 535-2000-293 (24" extension)

Model Number 535-2000-296 (approx. 26" extension)

The Vaddio Drop Down Series Camera Mounts for the Vaddio HD-18, Sony EVI-HD1 and Polycom EagleEye PTZ cameras are designed to allow integrators to easily install a compact PTZ camera into locations where wall mounting a camera is not possible. The key features of the Drop Down Series of Cameras are:

- Designed to fit the Vaddio HD-18, Sony EVI-HD1, TANDBERG Precision HD and Polycom EagleEye PTZ cameras, along with the WallVIEW PRO and CCU camera systems
- Mounting tube acts as a cable pass-thru for the Vaddio EZ Camera Cat. 5 cabling system
- Constructed from steel with black power coat paint which provides a tough, attractive and lasting finish
- Dimensions & Weight: 535-2000-292 -- 15-1/2" H x 11-1/4" W x 12" D – Weight: 9 lbs.
39.4cm H x 28.6cm W x 30.4cm D – Weight: 4.1 kg.
- 535-2000-293 -- 27-1/2" H x 11-1/4" W x 12" D – Weight: 10 lbs.
69.9cm H x 28.6cm W x 30.4cm D – Weight: 4.5 kg.
- 535-2000-296 -- 26" H x 6-3/4" W x 9-1/2" D – Weight: 9 lbs.
66cm H x 17.1cm W x 24.1cm D – Weight: 4.1 kg.



Figures 3 & 4:

Figure 3 (left): 26" extension with Vaddio HD-18

Figure 4 (upper right): 12" extension with a Sony EVI-HD1

Figure 5 (right): 24" extension with a Polycom EagleEye

Note: cameras not included