Q-SYS™

Product Reference Guide

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Q-SYS is a cloud-manageable audio, video and control platform built around a modern, standards-based IT architecture.

The **Q-SYS OS** serves as the software-based singular foundation that drives and manages a multitude of **Q-SYS Products** within the platform, including native software, services and hardware, designed by QSC. Additionally, its modern IT architecture and a set of development tools (called **"Q-SYS Open"**) enable an entire Ecosystem of third-party integrations developed by **Q-SYS Partners** as well as a worldwide community of Q-SYS programmers and developers.

Q-SYS Products

Processing

Networking

Audio

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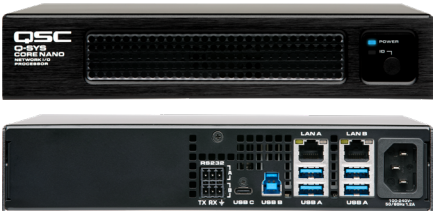
Monitoring

Software Licenses

Driven by the Q-SYS OS, each Q-SYS Core leverages the power of Intel processing, the robustness and mission-critical reliability of a purpose-built Linux kernel, the interoperability of IEEE networking standards to deliver an open and IT-friendly Platform that enables an entire Ecosystem of Q-SYS Partners and open device integration development. Each Q-SYS Core is a fully integrated audio, video and control processor built around one common software, letting you choose your processor based on the feature needs or scale of your unique installation.

	Total network I/O	Onboard I/O	Software-based Dante™ capacity	AEC Processors	GPIO	Onboard RS232 control ports	VoIP instances	Onboard USB bridging
Core Nano	64 x 64 / 128 x 128*		8 x 8 included (up to 32 x 32*)	8 / up to 16*		2	2 / 4*	✓
Core 8 Flex	64 x 64 / 128 x 128*	8 flex	8 x 8 included (up to 32 x 32*)	8	✓	2	2 / 4*	✓
NV-32-H (Core Capable)	32 x 32	HDMI (8-ch per port) Stereo 3.5 mm (1X1)	None included (up to 32 x 32*)	8	✓	1	1	✓
Core 110f	128 x 128	8 in, 8 out, 8 flex	8 x 8 included (up to 32 x 32*)	16	✓	1	4	✓
Core 610	256 x 256		8 x 8 included (128 x 128)	64		1	64	
Core 5200	512 x 512		8 x 8 included (up to 512 x 512)	160		1	64	

* Refer to Q-SYS Software Licenses for more details



Core Nano processor

The Q-SYS Core Nano audio, video and control (AV&C) processor extends the applications of Q-SYS into a wider range of small-scale installations across corporate, higher education, healthcare and beyond. Built on the same foundational technology as the rest of the Q-SYS processor portfolio, Core Nano is designed for applications with lower network channel capacity and/or targeted processing requirements.

- 64 x 64 networked audio channels (up to 128 x128*)
- 8x AEC processors (up to 16*)
- Up to 32 x 32 Dante™ audio channels* (8 x 8 included)
- USB AV bridging (8 x 8 audio + Q-SYS camera support)

- **Network I/O Only:** Core Nano offers purely networked AV&C processing without any on-board analog connections. This represents a major cost savings for those installations that have adopted modern networked endpoints and/or need a shared/centralized processing scenario.
- **Rightsized. Uncompromising. :** Rather than deploying an AV&C processor with unused analog I/O that occupies a full rack space, Core Nano offers a compact solution that delivers a full-featured control engine for third-party device control, full paging and BGM capabilities, automation, monitoring and beyond.
- **Optimized for the Meeting Space:** The Core Nano 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.

* Refer to Q-SYS Software Licenses for more details

Core 8 Flex

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

- 64 x 64 networked audio channels (up to 128 x128*)
- 8x on-board flex channels and GPIO
- 8x AEC processors (up to 16*)
- Up to 32 x 32 Dante™ audio channels* (8 x 8 included)
- USB AV bridging (8 x 8 audio + Q-SYS camera support)

- **Network plus on-board I/O:** In addition to its 64 x 64 network 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 Q-SYS, making it ideal for in-room processing with both analog & networked endpoints.
- **Rightsized. Uncompromising:** Rather than deploying an AV&C processor with unused analog I/O that occupies a full rack space, Core 8 Flex offers a compact solution that delivers a full featured control engine for third-party device control, full paging and BGM capabilities, automation, monitoring and beyond.
- **Optimized for the meeting space:** The 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.

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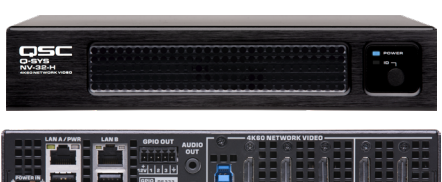


NV-32-H (Core Capable) - Core Mode

The NV-32-H (Core Capable) is a multipurpose, software-configurable video endpoint native to Q-SYS, offering two distinct operating modes to choose between, based on the needs of the application. 'Core Mode' transforms the device into a fully integrated Q-SYS processor with local HDMI switching capabilities.

- 32 x 32 networked audio channels (Q-LAN / AES67)
- On-board audio I/O via HDMI, USB and 3.5 mm
- 8x AEC processors
- Up to 32 x 32 Dante™ audio channels*
- USB AV bridging (8 x 8 audio + Q-SYS camera support)

- **True Q-SYS processing and I/O capabilities:** Full-featured processing engine for Q-SYS with optional software feature licenses allow for even greater, customizable functionality (full-featured control engine, UCI engine, Dante™ audio channels, remote monitoring and more).
- **Integrated video switching:** Core Mode enables an on-board 3 x 2 HDMI video switcher, allowing in-room users to easily share presentation or video content from their laptops or other in-room HDMI sources.
- **BYOD-capable web conferencing & VoIP:** Integrate Q-SYS video cameras and audio via USB into all major UC Platforms such as Google Meet, Microsoft Teams or Zoom.

* Refer to Q-SYS Software Licenses for more details

Core 110f

With an abundance of acoustic echo cancellation (AEC), raw processing power and networked audio channel count, the Q-SYS Core 110f is ideal for spaces needing plenty of onboard I/O and in-room processing. It also has the capacity to act as a centralized processor for multiple spaces when paired with networked endpoints.

- **Class leading I/O:** Core 110f has 24 I/O + USB, POTS and VoIP simultaneously offering the best cost-to-I/O ratio in a single SKU, single chassis product available on the market.
- **8 Flex channels:** Nearly all the flexibility of a card-based DSP solution without the hassle of multiple SKU's and custom ordering.
- **Web conferencing software integration:** Core 110f provides on-board USB bridging capability (via USB-B port) for Q-SYS audio and network camera feeds to PCs, ideal for simple integration of UC Platforms, such as Google Meet, Microsoft Teams and Zoom.

Core 610

The Q-SYS Core 610 represents the next-generation of Q-SYS processing, pairing the Q-SYS OS with enterprise-grade Dell COTS server hardware to deliver a flexible and scalable audio, video and control solution for a vast range of larger scale applications. It is a fully networked AV&C processor, letting you distribute network I/O where it's most convenient. The Core 610 is equally suited for centralized processing for multiple meeting rooms in enterprise applications, as well as handling larger spaces or venues in hospitality, entertainment, or transit hubs.

- 256 x 256 networked audio channels (Q-LAN/AES67)
- 64x AEC processors
- Up to 128 x 128 Dante audio channels (8 x 8 included); 256 x 256 license tier coming soon with release of Q-SYS Designer Software v9.8
- Supports up to 16x Q-SYS NM-T1 network microphones
- 64x VoIP softphone instances
- 64 x 64 Media/WAN streaming capacity
- 16x multitrack playback channels (up to 128 with optional feature license)
- 4x multitrack record channels
- Dual gigabit Ethernet ports for redundant networked audio
- Two (2) independent, gigabit auxiliary Ethernet ports for segregation of network services such as VoIP, SNMP, LLDP, LDAP and WAN Media streaming
- Onboard 480 GB media drive

Core 5200

The Q-SYS Core 5200 Enterprise processor combines Q-SYS, the professional AV industry's first Intel® based real-time operating system purpose built for reconfigurable audio, video and control (AV&C), with the robustness of Dell™ hardware and their most prolific and world renowned server platform. The Q-SYS Core 5200 processor is the first professional AV&C product available that illustrates the transition away from proprietary, single-use hardware devices to modern, software-based appliances leveraging the power of commercial off-the-shelf server hardware.

- **IT-Centric platform:** Q-SYS is the only professional audio, video and control (AV&C) platform that is built from the ground up using modern IT technology, industry standard networking technology and mainstream software solutions to provide deterministic AV&C capabilities for the IT customer.
- **Unmatched AV&C processing resources:** The Core 5200 processor offers capability unmatched by any other audio, video or control processor making it the first solution to realize the flexibility and scalability of centralized AV&C processing in an economical manner.
- **Software-defined acoustic echo cancellation:** The Core 5200 processor offers 160 channels of software-defined acoustic echo cancellation (AEC) for audio and video conferencing applications. Software-based AEC with adjustable tail-length can be applied to any audio source without any additional or specific hardware.
- **Resiliency and robustness of Dell:** The Core 5200 processor offers the real-time AV&C processing capabilities of Q-SYS on Dell's most prolific and common IT server which has been fully vetted and used in IT environments and applications around the world. The Core 5200 processor offers access to iDRAC (integrated Dell Access Controller), along with dual hot-swappable AC mains power supplies.

Q-SYS vCore virtualized processor provides selected, scalable Q-SYS functionalities in a fully software-based format, directly from your own PC/server compute device.

Q-SYS Control feature license for vCore

- **Add Q-SYS Control products to existing systems:** Integrate QIO Series control devices, TSC Series touchscreens, Attero Tech C1 controllers, and take advantage of virtual control displays via UCI Viewer for PCs and iOS devices.
- **Elevate user experiences in less complicated applications:** Add control and automation to existing huddle rooms, smaller collaboration spaces and hospitality applications whose audio/UC requirements are fulfilled by simple, standalone hardware.
- **Assist users with remote helpdesk and system monitoring & management:** Bridge the gap often left by bespoke hardware that do not connect to industry-standard managed service provider tools by allowing you to tie these disparate devices to Q-SYS Reflect Enterprise Manager.

NS Series Gen 2 Network Switches

The Q-SYS NS Series Gen 2 offers a range of enterprise-grade, NETGEAR-manufactured network switches that have been pre-configured specifically to meet the performance requirements for Q-SYS, AES67 and Dante™. With a primary focus on Q-SYS audio, video & control (AV&C), these network switches provide an out-of-the-box solution for Q-SYS integrators and IT support staff building standalone AV networks.

- **Expedite deployment and reduce support requirements:** Q-SYS NS Series network switches are pre-configured specifically to meet the performance requirements of Q-SYS, saving time, cost, and frustration associated with troubleshooting untested network switches.
- **Flexible network scenarios:** Q-SYS NS Series Gen 2 network switches support Q-LAN, AES67 and Dante™ audio streams in addition to Q-LAN video streaming and distribution, simultaneously within the same VLAN without ever having to manually configure or adapt the QoS settings on the switches or endpoint devices.
- **Eliminate Q-SYS device power challenges:** Each Q-SYS NS Series Gen 2 network switch features standard PoE on all ports providing combined power, data and control for your Q-SYS devices. Furthermore, the Q-SYS NS10-720++ and Q-SYS NS26-1440++ support PoE Type 4 (up to 90 W) for use with Q-SYS devices that carry greater power requirements (like the Q-SYS NV Series video endpoints).
- **Intelligent management:** NS Series Gen 2 network switches automatically manage any multicast AV traffic on your network. They also feature integrated IGMP+ to provide automatic multicast data management between multiple NS Series Gen 2 switches along with an optional built-in DHCP server, also pre-configured to provide automated IP connectivity for standalone AV systems.
- **Future-ready solution:** Q-SYS NS Series Gen 2 network switches are the benchmark for future Q-SYS audio and video peripheral products, ensuring this investment in your AV infrastructure will support the expansion and evolution of your Q-SYS system for years to come.

Q-SYS NS10-125+

- **1 Gbps switch ports (PoE+):** 10 (8)
- **1 Gbps SFP ports:** 2
- **PoE budget:** 125 W
- **Supports IEEE 802.3af and IEEE 802.3at:** up to 90 W of power per device

Q-SYS NS26-300+

- **1 Gbps switch ports (PoE+):** 16 (24)
- **1 Gbps SFP ports:** 4
- **PoE budget:** 300 W
- **Supports IEEE 802.3af and IEEE 802.3at:** up to 30 W of power per device

Q-SYS NS10-720++

- **1 Gbps switch ports (PoE+):** 10 (8)
- **1 Gbps SFP ports:** 2
- **PoE budget:** 720 W
- **Supports IEEE 802.3bt (type 4):** up to 90 W of power per device

Q-SYS NS26-1440++

- **1 Gbps switch ports (PoE+):** 26 (24)
- **1 Gbps SFP ports:** 4
- **PoE budget:** 1,440 W
- **Supports IEEE 802.3bt (type 4):** up to 90 W of power per device

CX-Q Series network amplifiers

CX-Q Series network amplifiers combine a legacy of robust power amplifiers, advancements in high-efficiency output devices and native network transport, control and monitoring capabilities of Q-SYS. CX-Q Series features four-and eight-channel models, capable of delivering customized power output loading and a total maximum power of up to 8000 W. Low impedance, 70 V or 100 V direct drive are available on all channels.

- **Designed for Q-SYS:** Like all Q-SYS Products, CX-Q Series network amplifiers offer simple drag-and-drop integration into your Q-SYS design, enabling network routing, advanced processing and control. This expedites the installation process and provides superior system performance far beyond that of third-party amplifier solutions.
- **Legacy of power redefined:** CX-Q Series feature 5th generation high-efficiency, Class-D hybrid powertrain design built upon the dependable PL380 PowerLight™ amplifier platform. The new design offers both high voltage and high current operation with excellent audio quality and thermal performance.
- **Flexible & efficient channel power distribution:** CX-Q Series network amplifiers combine two technologies that provide extreme flexibility in output deployment:

  FlexAmp™: Allows for asymmetric output channel loading by drawing from large power reserves and distributing customized output power levels per channel. This reduces system cost by removing the need to specify multiple amplifiers with different power ratings in a multi-zone installation.

  FAST (Flexible Summing Amplifier Technology™): Allows channels to be combined in bridge mode, parallel mode or bridge/parallel mode to deliver either higher voltage loads (up to 200 Vrms output) or higher current loads (up to 35 A).

FAST™

- Seamless Q-SYS™ integration with audio transport, control and monitoring via standard gigabit Ethernet protocols and hardware
- Capable of providing up to 8,000 W of power
- Low-Z, 70 V and 100 V direct drive available on all channels
- Hybrid circuit topology mixing the robustness of the PL380 PowerLight™ with new high-voltage output devices
- PowerLight universal switchmode power supply with PFC for highest efficiency, and low weight
- Eight bi-directional GPIO connections
- Touch-proof Euroblock loudspeaker connections
- Automatic energy saving modes ensure that the amplifier will draw the minimum amount of AC power while still providing outstanding audio quality

		CX-Q 2K4	CX-Q 4K4	CX-Q 8K4
		Max Power	Max Power	Max Power
4 independent channels A, B, C, D	70 V	700 W	1000 W	1250 W
	100 V	350 W	500 W	1250 W
	16 Ω	700 W	700 W	625 W
	8 Ω	700 W	1000 W	1250 W
	4 Ω	800 W	1500 W	2400 W
	2 Ω	600 W	800 W	2750 W
2 channels BTL bridged A+B or C+D Doubles voltage	140 V	1500 W	2000 W	2400 W
	200 V	1500 W	2000 W	2400 W
	8 Ω	1500 W	3000 W	4000 W
	4 Ω	1400 W	1700 W	5000 W
	2 Ω	NR*	NR*	3000 W
2 channels parallel AB or CD Doubles Current	70 V	1400 W	2000 W	2400 W
	100 V	1400 W	2000 W	2400 W
	8 Ω	800 W	1000 W	1250 W
	4 Ω	1250 W	2000 W	2400 W
	2 Ω	1500 W	2500 W	4000 W
3 channel combined in parallel ABC Triples current	8 Ω	800 W	1000 W	1250 W
	4 Ω	1250 W	2000 W	2400 W
	2 Ω	1500 W	3000 W	4500 W
4 channels combined in bridged/parallel AB+CD Doubles current and voltage	8 Ω	2500 W	3500 W	4200 W
	4 Ω	3000 W	4000 W	7000 W
	2 Ω	NR*	NR*	8000 W
4 channels combined in parallel ABCD Quadruples current	8 Ω	800 W	1000 W	1250 W
	4 Ω	1250 W	2000 W	2500 W
	2 Ω	1500 W	2500 W	5000 W
	1 Ω	2500 W	4000 W	7000 W

NR*: Not Recommended due to excessive current draw
Max Power: 20 ms 1 kHz Sine wave burst, all channels driven
Specifications are preliminary and are subject to change without notice.

		CX-Q 4K8	CX-Q 8K8
		Max Power	Max Power
8 independent channels A, B, C, D, E, F, G, H	70 V	1000 W	1250 W
	100 V	1000 W	1250 W
	8 Ω	1000 W	1250 W
	4 Ω	1000 W	1500 W
	2 Ω	1000 W	1200 W
2 channels BTL bridged A+B or C+D Doubles Voltage	140 V	1500 W	2000 W
	200 V	1500 W	2000 W
	8 Ω	1500 W	3000 W
	4 Ω	1400 W	1700 W
	2 Ω	NR*	NR*
2 channels parallel AB or CD Doubles current	70 V	1500 W	2000 W
	100 V	1500 W	2000 W
	8 Ω	1000 W	1250 W
	4 Ω	1250 W	2400 W
	2 Ω	1500 W	2500 W
3 channel combined in parallel ABC Triples current	8 Ω	1000 W	1250 W
	4 Ω	1500 W	2000 W
	2 Ω	1500 W	2500 W
4 channels combined in bridged/parallel AB+CD, EF+GH Doubles current and voltage	8 Ω	2500 W	4000 W
	4 Ω	3000 W	5000 W
	2 Ω	NR*	NR*
4 channels combined in parallel ABCD Quadruples current	8 Ω	1000 W	1200 W
	4 Ω	2000 W	2400 W
	2 Ω	2500 W	4000 W
	1 Ω	3000 W	4000 W

NR*: Not Recommended due to excessive current draw
Max Power: 20 ms 1 kHz Sine wave burst, all channels driven
Specifications are preliminary and are subject to change without notice.

RoHS

SPA-Q

The Q-SYS SPA-Q Series expands and delivers rightsized amplification to a wide variety of space-types. With available GPIO for control, two flex channels (either mic/line inputs or line outputs), and 60 W per channel, Q-SYS SPA-Q Series provide the utility to centralize your processor's connectivity across more spaces, all within a trusted native Q-SYS network amplifier.

- **Rightsized Amplification:** Two or four output channel models at 60 W per channel
- **Flex I/O:** Two onboard software-definable flex channels (as mic/line inputs with 48V phantom power, or as line level outputs)
- **Bi-directional GPIO:** Power/control microphone LEDs, sensors or buttons using four bi-directional GPIO pins.
- **Compact Design:** Half-rack, 1RU footprint and included hardware for multiple mounting options allows for flexible placement.
- **Convenient Cooled:** Provides quiet, continuous performance.

Amplifier channels	2 ch: SPA-Qf 60x2 4 ch: SPA-Qf 60x4
Single ended*	
8 Ω	60 W
4 Ω	60 W
BTL power	
8 Ω	120 W
70 Vrms	120 W
100 Vrms	120 W
Frequency response (4 & 8 Ω)	20 Hz – 20 kHz + / - 0.5 dB
Voltage peak rating	75 Vpk
Current peak rating	12 Apk
Signal to noise	>100 dB
Output circuitry	Class D
Voltage gain (Lo-Z/70 V/100 V)	25/29/32 dB
High-Z setting (software setting)	70 V RMS or 100 V RMS
Low-Z operation range	2 - 16 Ω
GPIO	1 x 3.5 mm 6 position Euro (Black) 4x bi-direction pins, 1x Power Pin (3.3V, 100mA), 1x Ground Pin
Audio flex channel capacity	2
Audio flex channel assignments	Each channel can be configured as a mic / line input or as a line output (configured through Q-SYS Designer Software)
AC power input	Universal Power Supply 100 – 240 VAC + / -10%, 50 – 60 Hz with PFC
Cooling	Convection
Product dimensions (HWD)	1.75 x 8.7 x 11.25 in (44 x 221 x 286 mm)
Included sccessories	Rack / wall mounting kit and power cord

* Power rating is after 100mS, all channels driven

NM-T1 Tabletop Beamforming PoE Microphone

The Q-SYS NM Series NM-T1 is a tabletop network PoE microphone native to Q-SYS and ideal for the collaboration space. The microphone features advanced beamforming technology that ensures optimal clarity and separation for all surrounding talkers. It also offers onboard call controls, programmable user button and touchless muting capability, which lets users mute or unmute with the wave of a hand.

- Four software-configurable zones provide up to 360° coverage
- Power over Ethernet (PoE)
- Touchless mute via proximity motion sensor
- Onboard call controls, including a programmable user button customizable in Q-SYS Designer Software
- Programmable RGB light ring for fully customizable color, pattern, speed
- **Supports Q-SYS Call Sync:** Automatically sync onboard controls and LED status indicators on select Q-SYS devices, keeping the state of all in-room endpoints in sync. It also provides mute sync for UC platforms via the Q-SYS HID controller.

	NM-T1
Polar pattern	Superdirective
Microphone elements	16x MEMS microphone elements
Frequency response	100 Hz - 16 kHz, +/-3 dB
Sampling rate	16 kHz wideband / 48 kHz fullband
Bit depth	24 bit
Power requirements	Power over Ethernet (PoE), Type 1 Class 2
Dimensions	4.21 x 1.1 in (107 x 28 mm)

NL Series Network Loudspeakers

Q-SYS NL Series network PoE loudspeakers deliver clear speech and music reproduction to the modern collaboration space. As native Q-SYS Products, the NL Series help enable true end-to-end network-based audio, video and control solutions driven by the Q-SYS OS. NL Series network loudspeakers integrate into your space with a single Ethernet cable to reduce the overall hardware footprint and lower system cost. Three form factors enable a wide range of room types, and take full advantage of the drag-and-drop integration and simple control capabilities offered by Q-SYS.

- **NL-SB42:** 4-inch, two-way soundbar
- **NL-C4:** 4-inch, ceiling-mount
- **NL-P4:** 4-inch, pendant-mount
- Native PoE loudspeakers for Q-SYS
- Consistent tonal characteristics across the entire NL Series family to let you mix and match form factors
- Q-SYS integrates loudspeaker voicings (Intrinsic Correction™) to simplify the tuning process
- Comprehensive management via Q-SYS Designer Software and Q-SYS Reflect Enterprise Manager
- **Supports Q-SYS Call Sync (NL-SB42 only):** Automatically sync onboard controls and LED status indicators on select Q-SYS devices, keeping the state of all in-room endpoints in sync. It also provides mute sync for UC platforms via the Q-SYS HID controller.

	NL-C4	NL-P4	NL-SB42
Loudspeaker type	Network PoE celing-mount	Network PoE pendant-mount	Network PoE soundbar
Driver	4-in (101.6 mm) full-range, paper cone woofer, fertile magnet		3.5-in (88.9 mm) woofer & 0.75-in (19.05 mm) tweeter
Effective frequency response	100 Hz - 20 Hz	90 Hz - 20 kHz	100 Hz - 20 kHz
Rated coverage (-6 dB)	120°	100°	150° horizontal, 160° vertical (1 kHz to 10 kHz)
Maximum continuous SPL	94 dB (PoE), 97 dB (PoE+)		90 (PoE), 93 (PoE+)
Maximum peak SPL	108 dB (PoE), 111 dB (PoE+)		106 (PoE), 107 (PoE+)
Net weight	3.5 lbs (1.6 kg)	2.88 lbs (1.31 kg)	3.86 lbs (1.75 kg)
Product dimensions	8.6 x 4.13 in (215 x 105 mm)	6.81 x 7.83 in (173 x 199 mm)	20.4 x 3.97 x 2.87 in (518 x 101 x 73 mm), without bracket/feet
Power requirements	PoE (Type 1 Class 3) or PoE+ (Type 2 Class 4)		
Power consumption	PoE 12 W maximum PoE+ 24 W maximum		

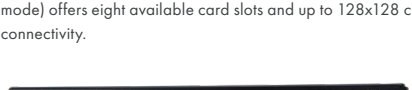
QIO Series Network Audio I/O Expanders

The Q-SYS QIO Series network audio I/O expanders extend your Q-SYS system's capabilities and enable streamlined interoperability with non-networked audio devices. By separating local I/O from processing hardware, the QIO Series offer modular and easily scalable network I/O to support your desired topology.

- **QIO-ML4:** Four (4) mic/line inputs
- **QIO-L4o:** Four (4) line outputs
- **QIO-ML2x2:** Two (2) mic/line inputs and two (2) line outputs
- Professional, high-performance mic/line level inputs (with +48 VDC phantom power) and/or line outputs
- Microphone detection on inputs to enable monitoring, usage statistics and failure notifications
- QIO Series present a simpler way to add network I/O connectivity to Q-SYS systems, decoupling the physical location of the I/O from processing hardware to support distributed or centralized processing architectures.
- Daisy-chain up to four QIO Series devices on a single network run (with local daisy-chained DC power).
- PoE-capable for single-cable connectivity (when devices arent daisy-chained)

I/O Frame

The Q-SYS I/O-Frame and Q-SYS Core 510i (in I/O-Frame mode) provide remote points of connection that interface Q-SYS with other components in the system, including microphones, mixers and power amplifiers. The I/O-Frame offers four available card slots and up to 16x16 audio I/O while the Core 510i (in I/O-Frame mode) offers eight available card slots and up to 128x128 channels of audio connectivity.



I/O-22

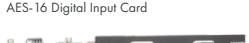
Providing two mic/line inputs and two line outputs, the I/O-22 is ideal for applications such as legislative or judicial chambers, meeting rooms, ballrooms, ancillary zones, classrooms, VIP suites, and stage patching.

- Connects directly to the gigabit ethernet network via redundant Q-LAN ports (RJ-45 Ethernet connectors)
- Powered via PoE (Power over Ethernet) or 24 VDC
- Includes an 8.5 watt mono amplifier to drive a local monitor speaker
- Other connections include a scriptable RS-232 port and eight GPIO ports

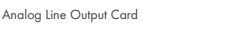
Mic/Line Analog Input Card

AES-16 Digital Input Card

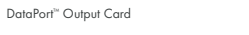
Analog Line Output Card



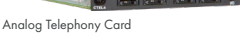
DataPort™ Output Card



Analog Telephony Card



Dante™ Network Audio Bridge Card



AES-3 Digital Input/Output Card

I/O Cards

The following cards are available for Q-SYS Core processors with card slots, as well as I/O Frames:

- **Mic/Line analog input card (CIML4/CIML4-HP):** Four channels of mic/line-level analog audio input with 48 V phantom power. The input card is also available in a high performance version (CIML4-HP) featuring broadcast quality pre-amps and A/D converters.
- **Analog line output card (COL4):** Four channels of balanced, line level analog output for interfacing between Q-SYS™ and outboard equipment such as amplifiers, recording devices and teleconference systems.
- **Analog telephony card (CTEL4):** Four RJ-11 interfaces (POTS) to connect Q-SYS to analog telephony environments.
- **AES-3 digital input/output card (CAES4):** Four input and four output channels of AES-3 digital audio for interfacing between Q-SYS and digital devices.
- **AES-16 input card (CIAES-16):** 16-channel AES/EBU (AES3) 24-bit digital input Q-SYS peripheral card that utilizes IT industry standard RJ45 connectors.
- **DataPort output card (CODP4):** Four audio output channels (2 DataPorts) for connection to DataPort equipped QSC amplifiers.
- **Dante™ audio bridge card (CDN64):** Provides a bridge for up to 64 x 64 channels of Dante™ audio into Q-SYS for redistribution over larger LAN and WAN IT infrastructures.

Attero Tech Network I/O Devices

Q-SYS-developed extensions allow integrators to drag-and-drop Attero Tech devices into their Q-SYS designs without the need for any complicated control programming. The Q-SYS Extensions for these devices can be added to your Q-SYS design through the Inventory menu in Q-SYS Designer Software.

Visit qsys.com/atterotech for the complete portfolio.

AES67 Dante® Bluetooth®

Q-SYS NV-21-HU network video endpoint

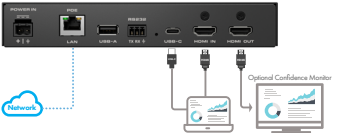
The Q-SYS NV-21-HU Series is the next evolution for native video distribution. As a software configurable endpoint, it offers a comprehensive single-cable solution for audio and video distribution, AV bridging, and device charging via USB-C. The NV-21-HU's compact size and reduced I/O means supporting meeting rooms, learning spaces, hospitality and entertainment installations has never been easier.

- **Single Cable Solution:** The Q-SYS NV-21-HU simplifies the user experience and intuitively supports a wide range of devices. A single USB-C connection to the NV-21-HU enables a user's device to distribute video formats up to 4K60 4:4:4 via Q-SYS Shift video codec, integrate Q-SYS camera and audio feeds into a supported collaboration application, and simultaneously charge the device.
- **Maximize Flexibility:** The NV-21-HU supports a broad range of user devices without adapters or converters. Software-configurable as an encoder or decoder, the NV-21-HU operates in either HDMI or USB-C mode. When needed, it may also function as an AV bridging endpoint.
- **Compact Size:** The NV-21-HU provides designers with a neatly reduced I/O, promoting simple and scalable designs across various applications including meeting rooms, learning spaces, hospitality, and entertainment installations.
- **Native Experience:** Powered by the Q-SYS OS, Q-SYS NV Series Network Video endpoints are easily managed from a single application. Q-SYS modern IT architecture and development tools enable an entire ecosystem of third-party integrations developed by approved Q-SYS Partners and a worldwide community of developers.

NV-21-HU set as encoder

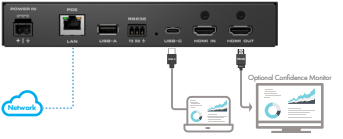
HDMI Mode

Route video via the HDMI connector. Bridge Q-SYS camera and audio feeds and charge your device with the USB-C connector.



USB-C Mode

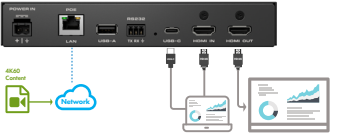
Route video, bridge Q-SYS camera and audio feeds, and charge your device with the USB-C connector.



NV-21-HU set as decoder

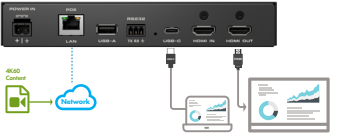
HDMI Mode

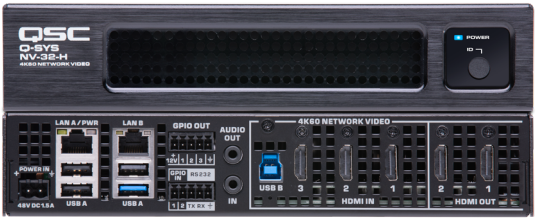
Route the local HDMI connection or network AV streams to the HDMI output. Bridge Q-SYS camera and audio feeds and charge your device with the USB-C connector.



USB-C Mode

Route network AV streams or local USB-C content to the HDMI output. Bridge Q-SYS camera and audio feeds and charge your device with the USB-C connector.





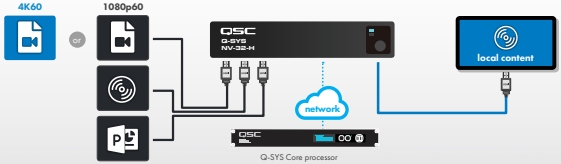
Q-SYS NV-32-H (Core Capable) - Peripheral Mode

The NV-32-H (Core Capable) is a multipurpose, software-configurable video endpoint native to Q-SYS, offering two distinct operating modes to choose between, based on the needs of the application. **'Peripheral Mode'** allows multi-stream video encoding or decoding for network-based HDMI video distribution

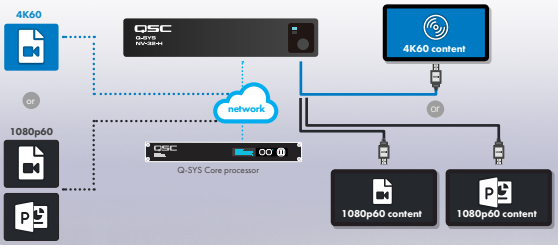
- **Streamlined video streaming integration for Q-SYS:** Enables native HDMI and audio distribution without additional control processors, bridges or complicated programming.
- **Optimized for the connected meeting space:** NV Series delivers the right balance of quality (resolutions up to 4K60 4:4:4), latency and network efficiency for meeting room video applications, and offers the scalability to fit the needs of your enterprise.
- **Unique flexibility and interoperability in a single device:** The NV Series is software-configurable as either an encoder or decoder, and offers I/O capabilities that provide maximum design flexibility with less hardware.
- **Network optimized compression scheme:** Q-SYS Shift® video compression codec dynamically adjusts network bandwidth consumption according to video content, affording massive network savings for common meeting room content without compromising on full-motion video content.
- **Web conference integration:** The NV Series features built-in connectivity for Q-SYS web conference integration, allowing for driverless USB connectivity to a PC for plug-and-play access to Q-SYS audio and conference camera feeds from soft codec applications, reducing tableside hardware (and cost).

Q-SYS
SHIFT®

NV-32-H set as encoder



NV-32-H set as decoder



Q-SYS NC Series conference cameras

The Q-SYS NC Series network conference cameras deliver high-quality video feeds natively to the Q-SYS Platform. With three models available to enable a broad range of high value collaboration spaces, NC Series cameras integrate seamlessly into Q-SYS, allowing for easy camera feed routing anywhere on the network without the need for complicated programming or video matrix hardware.

- **Rightsize the camera solution for your space:** The Q-SYS NC-110 is a fixed-lens, ePTZ camera that features a 110° horizontal field-of-view for wider rooms, while the Q-SYS NC-12x80 and Q-SYS NC-20x60 offer motorized pan, tilt, and zoom (PTZ) functionality to enable a more broad range of room layouts, sizes and purposes.
- **Network transport, USB delivery:** Q-SYS NC Series cameras solve the cable length limitations found in traditional conference camera solutions by enlisting a single network cable for video, power and control data transport into Q-SYS, and then employing USB technology to deliver the video to its intended PC/compute device, greatly simplifying system design and deployment.
- **Universal compatibility:** The Q-SYS NC Series camera feeds, along with Q-SYS room audio, can be delivered to the conferencing application of choice, letting you scale the meeting experience for Google Meet, Microsoft Teams, Zoom and more into rooms of any size or configuration to ensure a great experience parity for both in-room and remote meeting participants.

Q-SYS NC-110

- Fixed-lens ePTZ
- Power over Ethernet
- 110° horizontal field of view
- 4K image sensor (IP streaming up to 1080p)
- Built-in mount can be used above or below displays

Q-SYS NC-12x80

- Pan, tilt, zoom lens
- Power over Ethernet
- 12x optical zoom
- 80° horizontal field of view
- 4K image sensor (IP streaming up to 1080p)

Q-SYS NC-20x60

- Pan, tilt, zoom lens
- Power over Ethernet
- 20x optical zoom
- 60° horizontal field of view
- 4K image sensor (IP streaming up to 1080p)

Q-SYS I/O USB Bridge

- **Standard USB 2.0 driverless connection:** The Q-SYS collaboration solution leverages standard UAC and UVC USB drivers for USB audio and video. No additional software or drivers are required to integrate with modern PC operating systems and UC platforms such as Google Meet, Microsoft Teams, Zoom, and others.
- **AV access everywhere:** Small enough to fit anywhere you need USB access into your Q-SYS installed room AV systems. These PoE network devices provide USB access to a host PC or other user device.
- **Eliminates USB limitations:** Eliminate the need for complicated and expensive USB switches and extenders for Q-SYS USB/BYOD connectivity. Being a small PoE network peripheral, I/O USB Bridges can easily be mounted closely to every USB host that needs Q-SYS AV access.
- **Redundancy:** The I/O USB Bridge provides two network ports for fully redundant connectivity.

Learn more about Q-SYS solutions for:

Google Meet
qsc.com/google

Microsoft
qsc.com/microsoft

zoom
qsc.com/zoom

Q-SYS TSC Series Gen 3 Series Touch Screen Controller

Q-SYS TSC Series Gen 3 are high-performance network touch screen controllers native to Q-SYS. Available in three sizes, these PoE-capable (power-over-Ethernet) devices take advantage of Q-SYS singular software architecture, letting you build custom user control interfaces (UCIs) in the same program as your DSP and control programming.

- Complete redesign, built for higher performance and modern aesthetics. This series offers increased resolutions with significantly improved screen transitions on all models.
- 7-inch and 10-inch models also feature RGB LED status indicators on the side of the touchscreen that can be fully customizable to signify anything from call/mute status, room-in-use, and beyond.
- TSC Series Gen 3 touch screen controllers are PoE-capable, combining power and data on a single cable for simplified system design and deployment.
- Supports vertical and horizontal orientation, and allows for wall-mounting in a single-gang wall box or table-top mounting with optional accessory (not included).
- Allows for display of realtime Q-SYS Mediacast streams from Q-SYS cameras at up to 30 fps.
- Q-SYS offers a unique drag-and-drop UCI creation utility within Q-SYS Designer Software for building intuitive and scalable interfaces without the need for any programming.
- **Supports Q-SYS Call Sync:** Automatically sync onboard controls and LED status indicators on select Q-SYS devices, keeping the state of all in-room endpoints in sync. It also provides mute sync for UC platforms via the Q-SYS HID controller.

	TSC-50-G3	TSC-70-G3	TSC-101-G3
Panel dimensions	5.5 x 3.2 x 1.49 in (141 x 81.3 x 37.8 mm)	4.5 x 7.3 x 1.54 in (185 x 115 x 39.1 mm)	6.2 x 9.97 x 1.54 in (253.2 x 158.5 x 39.1 mm)
Viewable screen dimensions (diagonal)	4.99 in (126.7 mm)	7 in (177.8 mm)	10.07 in (255.8)
Resolution (pixels)	1280 x 720	1280 x 800	1920 x 1200
Brightness	450 Nits	400 Nits	380 Nits
Panel Orientation	Vertical / horizontal	Vertical / horizontal	Vertical / horizontal
Wall mount	Yes	Yes	Yes
Table top	Optional table top stand accessory	Optional table top stand accessory	Optional table top stand accessory
PoE	PoE Class 2	PoE+ Class 3	PoE+ Class 4

QIO Series Network Control I/O Expanders

The Q-SYS QIO Series network control I/O expanders extend your Q-SYS system's capabilities and enable streamlined interoperability with non-networked devices requiring IR, Serial, or GPIO connectivity. By separating local I/O from processing hardware, the QIO Series offer modular and easily scalable network I/O to support your desired topology.

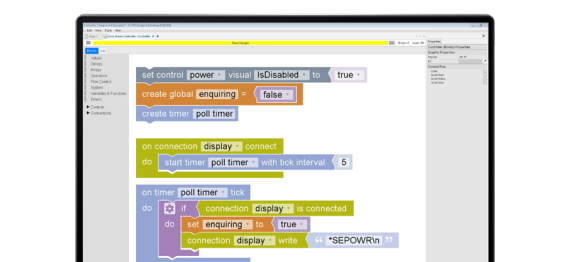
- **QIO-IR1x4:** One (1) IR receiver output & four (4) IR emitter inputs
- **QIO-GP8x8:** Eight (8) general purpose inputs & eight (8) general purpose outputs
- **QIO-S4:** Four (4) RS232 ports (one port also includes RS-485 and RS-422 compatibility)
- QIO Series present a simpler way to add network I/O connectivity to Q-SYS systems, decoupling the physical location of the I/O from processing hardware to support distributed or centralized processing architectures.
- Daisy-chain up to four QIO Series devices on a single network run (with local daisy-chained DC power).
- PoE-capable for single-cable connectivity (when devices arent daisy-chained)

Q-SYS UCI Deployment Feature License

Create custom user control interfaces (UCI) for use with Q-SYS. Design with absolute simplicity and automation in mind, or create comprehensive tuning and troubleshooting monitoring screens. This tool is ideal for system designers who need to create a positive user experience, or for IT administrators who need to make small changes or add additional features to existing UCI designs.

- **Easy drag and drop interface:** Drag and drop any control Q-SYS element from a Q-SYS design schematic into UCI Editor and easily deploy your design to the touch screen, without any programming experience. Q-SYS UCI Editor allows the import of room diagrams, corporate logos or other graphical elements in all major graphic file formats.
- **Complete design freedom:** Build more dynamic UCI themes and apply global styles across multiple UCIs with CSS-based styling. Enables easier deployment of uniform UCIs across an organization.
- **Simplified license activation:** Intuitive activation methods, including online activation for connected Q-SYS Cores, allow for fast integration.

Requires license activation. See www.qsys.com/licenses for more details.



Block Controller

Q-SYS Scripting Engine Feature License

Q-SYS offers one of the most full featured AV control platforms available, powered by its robust software-based scripting engine.

- **Third party control plugins/scripts:** Take advantage of a growing library of useful plugins and control scripts for some of the most commonly used elements of today's modern conference room (available for download through Q-SYS Designer Asset Manager). Plugins are designed to easily integrate third party devices with the Q-SYS Platform in a matter of minutes.
- **Full featured scripting component:** Integrate anything from the simplest function to the most complex, nuanced control scenario imaginable. Create custom scripts using modern, accessible scripting languages including Lua, an open-source, IT friendly programming language.
- **Visual coding tool:** The Block Controller component offers a drag-and-drop method for building control scripts within Q-SYS. Based on a concept originally developed by Google and MIT, this open source visual programming tool uses interlocking, graphical blocks to represent common programming concepts. It enables easy composition of sophisticated scripts, especially for novice programmers.

Requires license activation. See www.qsc.com/licenses for more details.

Q-SYS™

AV BRIDGING

Feature Licenses

The Q-SYS AV Bridging feature license expands the functionality of native Q-SYS devices, allowing users to connect their device directly via USB to easily integrate Q-SYS audio and camera feeds for remote meetings.

- **Meetings Simplified:** The Q-SYS AV Bridging feature license streamlines how video collaboration users connect their PCs to the room's video and audio system by enabling simple plug-and-play USB connectivity to Q-SYS from the NV-21-HU network video endpoint or TSC-G3 Series network touchscreens. This simple, network-first solution removes the need for unreliable USB extenders and other workarounds to integrate audio and video signals into UC platforms.
- **Software-based Benefits:** Like the rest of the Q-SYS License portfolio, the Q-SYS AV Bridging feature license allows you to tailor your Q-SYS system's feature set based on the unique needs of each space. Whether you're choosing the right features before installation or adding capabilities as business needs evolve, these licenses expand functionality at the software level. This removes the need for additional hardware and saves on configuration, installation, and supporting infrastructure.
- **Simple Deployment:** Activation for the Q-SYS AV Bridging license is easy. Each device license can be deployed remotely using Q-SYS Reflect Enterprise Manager, a cloud-based monitoring and management platform for Q-SYS. (Additional offline/local installation methods are also available.)

Q-SYS now provides software-based Dante™ network audio integration without the need for additional hardware. As part of a strategic co-development effort with Audinate, QSC leveraged the open architecture and Intel processing headroom of Q-SYS to extend its audio integration capabilities to include Dante™.

- **Simple integration into Q-SYS:** Add Dante™ network audio to your Q-SYS system without network I/O cards or additional hardware. Dante™ integrates into the Q-SYS AV&C workflow, offering device discovery, synchronization, control and management for Dante™ audio within the Q-SYS network, alongside native Q-LAN and other edge networks like AES67.
- **Software-based upgrades and scalability:** Q-SYS will enable networked Dante™ integration with a simple software update. In keeping with the QSC commitment to software-based platform expansion, these optional software licenses will allow integrators to right-size and scale the appropriate Dante™ channel count into new and existing Q-SYS installations.
- **Single network infrastructure:** Because Q-SYS operates over standard network infrastructure, Dante™ data can converge with Q-SYS AV&C data, eliminating the need for complicated network bridging or combining to manage your Q-SYS and Dante™ connected peripherals.
- **Simplified license activation:** Intuitive activation methods, including online activation for connected Q-SYS Cores, allow for fast integration.

Requires license activation. See www.qsc.com/licenses for more details.

Q-SYS™ SCALING LICENSES

Q-SYS Scaling licenses allow you to leverage the unique software-based nature of the Q-SYS Platform to scale targeted feature sets which tailor your Q-SYS Core to the needs of specific applications and use cases. When combined with the existing range of Q-SYS Core processors, these licenses provide even greater scalability and granularity of product choice for a broader range of projects and sizes.

- **Unlock potential:** Q-SYS Cores are built on modern technology platforms that offer vast amounts of processing capacity to evolve over time. With this in mind, QSC actively reserved some capacity in the Core 8 Flex and Core Nano at launch in order to provide end users the choice of unlocking this additional headroom to take advantage of a future generation of Q-SYS Products and emerging applications.
- **Software-based benefits:** Whether choosing the right features before installation or scaling capabilities as business needs change, Q-SYS Scaling licenses enable users to add the right features when they need them at any time, with a simple license activation (rather than adding additional processing hardware).
- **Removing the guesswork:** Q-SYS Scaling licenses have been designed as bundles to remove the guesswork and complexity of choosing the right features for your space. Each bundle makes it easier to choose the right feature set based on the project type and outcome for your intended application.

- The **Q-SYS Collaboration Bundle scaling license for Core Nano and Core 8 Flex** is focused on expanding the resources aimed at meeting spaces.

	Q-SYS Core Nano & Core 8 Flex base configuration	Q-SYS Core + Collaboration Bundle Scaling license
Q-LAN/AES67 network channels	64 x 64	128 x 128
DSP processing power	1x	Approx. 2x
Softphones	2	4
AEC Processors @200 ms	8	16*
NM-T1	up to 3	up to 6*
Media/WAN network channels	12 x 12	12 x 12
Q-SYS peripherals	32	32

** NM Series NM-T1 microphones and third-party microphone AEC processing share similar processing resources. When using both in the same Q-SYS design, the maximum number of NM-T1 and third-party AEC microphone channel /capabilities works on a sliding scale. As the NM Series draws closer to its release date, QSC will provide more granular details on these resource capacities.*

- The **Q-SYS Commercial AV bundle scaling license for Core Nano and Core 8 Flex** is focused on expanding the resources aimed at larger BGM and paging applications (where users may previously have required higher tier Core processors in the past).

	Q-SYS Core Nano & Core 8 Flex base configuration	Q-SYS Core + Commercial AV Bundle Scaling license
Q-LAN/AES67 network channels	64 x 64	128 x 128
DSP processing power	1x	Approx. 2x
Softphones	2	2
AEC Processors @200 ms	8	8
NM-T1	up to 3	up to 3
Media/WAN network channels	12 x 12	24 x 24
Q-SYS peripherals	32	48


Q-SYS
REFLECT
MONITORING
Cores
MANAGEMENT
Members
BizCorp Inc.
IT Admin
Cores
+ Add Core
9 cores
Search
Status
Name
System
Actions
Running
Core-110f-Exec-boardroom-4564
LA Building 1 Exec Conference
Open
Running
Core-510i-Train-room-2345
LA Building 2
Open
Running
Core 5200-wide-area-paging
Seattle HQ
Open
Running
Core-110f-Exec-boardroom-3451
Seattle Building 2
Open
Running
Core 110f-upper-level
Building 2 (Seattle)
Open
Running
Core510i-multipurpose-roo
New York Regional Office 1
Open
Running
Core510i-BGM-allbuilding
Denver Corporate Office
Open
Core-110f-Voip-system-134
Arizona Office 1
Open
Running
Core-510i-BGM-allbuilding
New Hamshire
Open
location b
location a
location c

Q-SYS REFLECT | ENTERPRISE MANAGER

Feature tiers

	Basic One place for all your Cores	Standard Painless remote AV monitoring & management	Professional Remote system design/ update & UCI helpdesk capabilities
Simple global visibility for Q-SYS Cores	●	●	●
Remote Q-SYS feature license management and deployment	●	●	●
Keep track of 1000s of AV devices... from anywhere		●	●
Centralize updates for security profiles, audio playlists and meeting room signage		●	●
Integration with IT systems with a single pane of glass		●	●
Control and troubleshoot any user control interface remotely			●
Update system design from anywhere with Remote Q-SYS Designer. (In addition, Remote Firmware Update coming later in 2021.)			●

Q-SYS Networked Page Stations

Available with either gooseneck or handheld microphone (push to talk), the Q-SYS network page station is a dual-port network device that is fully configurable from Q-SYS Designer Software. Each station connects to a Q-SYS system via Q-LAN, which handles all audio deliveries to and from the station. Four networked page station models are currently available:

- **PS-1600H/G:** 16 buttons total, including four command buttons (command code A-D). Also includes a numeric keypad and supports security features including automatic logoff time out, logon requirements, and user restrictions
- **PS-1650H/G:** 16 command buttons (command code A-P)

- **Simple, integrated platform:** Q-SYS enables paging with simplified bills of material including playback, record, and store-and-forward.
- **Ample paging capacity:** With Cores supporting up to 1024 total network channels.
- **Page stations:** Built to withstand the rigors of daily use, all page stations are powered over Ethernet and offer secure access, high-fidelity gooseneck or handheld microphones, and capacitive touch buttons.
- **PA router:** Supports live and delayed paging, scheduled messaging, announcement recording, live page routing, triggered playback, and event scheduling.

All Page station features:

- Two Q-LAN network interfaces enabling connection to two switch ports or deployment on two separate networks.
- Capacitive touchpad that offers visible feedback and audible cues including illuminated status indicators.
- Built-in 240 x 64 monochrome graphics LCD display.
- Powered via PoE (Power over Ethernet) or external 24 VDC.
- Rear panel auxiliary audio inputs can accommodate a secondary microphone.
- Auxiliary output can drive a local amplifier, powered loudspeaker or other destination device.
- GPIO interface can be configured to use external events to affect paging operation or be the source of events to affect external control systems.
- Designed for both desktop and wall-mounted installation and include either handheld (H) or gooseneck (G) microphone.

PS-X

A handheld paging accessory for any Q-SYS™ Page Station provides a secondary remote microphone and is designed to fit into a standard U.S. 2-gang wall box.

PS-X Paging Accessory

ANALOG AMPLIFIERS


CXD
4.2
PROCESSING
AMPLIFIER
4 CHANNEL
LO-Z / HI-Z
A B OUTPUT C D
MUTE
LIM
-10
-20
SEL
CLIP
SIG
1 2 INPUT 3 4
CXD
4.3
PROCESSING
AMPLIFIER
4 CHANNEL
LO-Z / HI-Z
*F1: Config - A B C D
AUTO
Type
Mild
QSC
CXD
4.5
*F1: Config - A B C D
Output
A
AUTO
Type
Mild
PwrRat
2.15KW
Imped
8.0
HOME
ENTER
EXIT
GAIN

MP-A Series Amplifiers

MP-A Series music and paging amplifiers build on a 50-year legacy of QSC amplifier experience by offering incredible amount of flexibility while maintaining high efficiency and low cost of ownership.

FlexAmp™ is the driving force behind all three models in the series, provides each pair of channels a combined power of up to 400 W, which can be shared in any ratio between them.

- **MP-A20V:** One set of channel pairs; each channel pair shares 400 W; total: 400 W
- **MP-A40V:** Two sets of channel pairs; each channel pair shares 400 W; total: 800 W
- **MP-A80V:** Four sets of channel pairs; each channel pair shares 400 W total: 1600 W

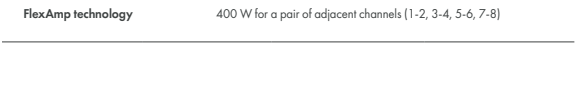
This makes for ample flexibility, especially when paired with the output mode switches that offers settings for 4 Ω, 8 Ω, 70 V and 100 V.

An example of MP-A versatility could be an MP-A40V used in a restaurant. Output A of the amp is set up for a 20 W, 70 V load for a pair of ceiling speakers in the bathrooms, while output B is set up in 4 Ω mode for driving one or two Lo-Z subwoofers with up to 380 W. Output C is set up with the high-pass filter engaged for driving 250 W into 70 V ceiling speakers in the main dining room, while output D is driving 150 W into 8 Ω surface mount loudspeakers on the patio.

MP-A Family Features

- Class-D output circuitry and switchmode power supplies
- FlexAmp™: every pair of channels shares a 400 W power supply with each channel capable of delivering the full power
- 1RU amplifier design for rack space savings
- Each channel provides load selection for driving 4 Ω, 8 Ω, 70 V or 100 V loads
- Each channel offers an 80 Hz high-pass filter selection
- Power saving features: Auto-standby (after 28 minutes with seamless auto-ramp when signal returns) and remote standby input

	MP-A20V	MP-A40V	MP-A80V
Channels	2	4	8
Power (all channels driven)			
8 Ω	200 W	200 W	200 W
4 Ω	200 W	200 W	200 W
70 V	200 W	200 W	200 W
100 V	200 W	200 W	200 W
FlexAmp technology	400 W for a pair of adjacent channels (1-2, 3-4, 5-6, 7-8)		



SPA Series Amplifiers

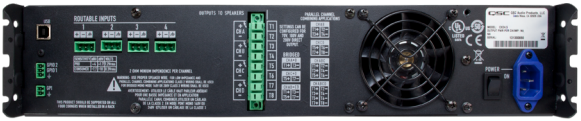
The SPA Series are half-rack 1RU, convection cooled power amplifiers, delivering two or four channels of power that can be bridged to supply up to 350 W per channel pairs into 70 V or 100 V. The SPA2-60 and SPA4-60 will deliver 60 watts per channel, while the SPA4-100 will deliver 100 W per channel and SPA2-200 will deliver up to 200 W per channel into 4 Ω and 8 Ω. Utilizing an advanced Class-D amplifier design and universal power supply, the SPA Series are amazingly efficient, allowing them to be convection cooled and ENERGY STAR® qualified with quiet auto-ramp standby functionality. SPA Series amplifiers are housed in an unobtrusive chassis with unique mounting hardware enabling rack, table and wall mounting capabilities.

- Up to 200 W into 4 Ω and 8 Ω, and up to 350 W into 70 V and 100 V.
- **ENERGY STAR® qualified amplifier:** Efficient class-D amplifiers that conserve energy and require no active cooling, so they reduce operational costs.
- **Bridgeable outputs for higher power:** Bridging the outputs of the SPA Series amplifiers provide up to 400 W into low impedance, and 350 W into 70 V or 100 V offering outstanding flexibility.
- **Auto-Ramp provides quiet startup and power-down:** Energy Star® Auto-Ramp circuitry ensures quiet and fast power up from Standby and seamless power-down following 25 minutes of inactivity, dramatically reducing power consumption.
- **Rack-mountable 1RU, half rack width enclosure:** Can be mounted in half RU reducing rack space requirements. In addition their clever joining inbrackets in enable easy under-table and wall-mounting.

	SPA2-60	SPA4-60	SPA2-200	SPA4-100
Stereo Mode				
8 Ω	60 W	60 W	200 W	100 W
4 Ω	60 W	60 W	200 W	100 W
Bridged Outputs				
8 Ω & 4 Ω	200 W	100 W continuous	400 W	200 W
70 V	250 W	125 W	350 W	175 W*
100 V	250 W	125 W	350 W	175 W*

**Peak power 250 W All mounting hardware included*

CXD Series Processing Amplifiers



Representing a revolutionary advancement in amplifier design, CXD Series amplifiers feature powerful onboard DSP and deliver robust, high fidelity power housed in a 2RU chassis. Designed with integrators in mind, the CXD Series includes three models (CXD4.2, CXD4.3 & CXD4.5) capable of driving a wide range of loudspeaker configurations including 70 V and 100 V systems. Flexible Amplifier Summing Technology™ (FAST) actively distributes total amplifier power across one, two, three or all four outputs enabling amp channels to be paralleled or bridged for maximum current and voltage output.

- Up to 5,000 W continuous and 8,000 W peak with 70 V/100 V direct drive on the CXD4.3 and CXD4.5.
- Flexible Amplifier Summing Technology™ (FAST) permits total amplifier power to be distributed across one, two, three or all four channels.
- Onboard full function loudspeaker processing including crossover, EQ, limiting and alignment delay eliminate the need for outboard loudspeaker processors.
- Intrinsic Correction™ ensures optimum sonic performance of QSC loudspeakers.
- Preset Wizard simplifies setup, providing system design tools and loudspeaker selection.
- Default factory presets are available, or a user can modify and store as one of 50 user presets.
- Four Euroblock inputs and four Euroblock touch-proof speaker outputs.

		CXD4.2	CXD4.3	CXD4.5
		Peak	Peak	Peak
4 independent channels A, B, C, D	70 V	N/A	500W	1000W
	100 V	N/A	625 W	1250 W
	8 Ω	500 W	900 W	1200 W
	4 Ω	700 W	1400 W	2000 W
	2 Ω	625 W	1200 W	1600 W
2 channels BTL bridged A+B or C+D Doubles voltage	8 Ω	1200 W	2400 W	4000 W
	4 Ω	1500 W	NR*	NR*
	2 Ω	NR*	NR*	NR*
2 channels parallel AB or CD Doubles current	8 Ω	500 W	1300 W	1250 W
	4 Ω	950 W	2000 W	2400 W
	2 Ω	1200 W	2500 W	4000 W
3 channels combined in parallel ABC Triples current	8 Ω	500 W	1400 W	1400 W
	4 Ω	950 W	2400 W	2500 W
	2 Ω	1800 W	3500 W	4500 W
4 channels combined in bridged/ parallel AB+CD Doubles current and voltage	8 Ω	1600 W	3500 W	4500 W
	4 Ω	2500 W	5000 W	7500 W
	2 Ω	NR*	NR*	NR*
4 channels combined in parallel ABCD Quadruples current	8 Ω	500 W	1400 W	1600 W
	4 Ω	1000 W	3000 W	3000 W
	2 Ω	1700 W	5000 W	5300 W

NR = Not Recommended due to excessive current draw*
BOLD = Optimal configuration for the load and channel count

- PowerLight universal switchmode power supply with Power Factor Correction for highest efficiency, improved audio performance, and low weight.
- Amp Navigator software (via USB connection) running on a PC or Mac for control, monitoring, and amplifier management. Amp Navigator also provides on-line and off-line editing of presets and loudspeaker profiles along with library management.

CX Series Amplifiers

CX Series are designed for installation applications requiring premium sound quality and high output. Recognized by sound contractors worldwide for their reliability, CX Series amplifiers feature PowerLight™ power supply technology reducing weight, eliminating AC mains hum and improving audio quality. The highly efficient power supply also draws less power and produces less heat resulting in added energy savings. They also feature advanced amplifier control and monitoring for Q-SYS™.

- Active inrush limiting gently brings amplifiers online eliminating the need for costly AC power sequencers.
- Front-panel gain controls with 1 dB detents allow for precise level adjustment and are protected by tamper-proof security covers.
- DataPort connections enable remote control and monitoring of amplifier functions via Q-SYS.
- Selectable clip limiters and infra-sonic filters protect loudspeakers from damage due to distortion and over excursion.
- DataPort or EuroBlock connector Inputs and touch-proof barrier-strip outputs (2 ch models also include XLR inputs and 8 channel models feature EuroBlock connector outputs).
- Sleep (Standby) mode for energy saving efficiency.
- Transformer-less 70 /100 volt models available.

CX 2-channel models

CX 4-channel models

CX 8-channel models

Watts per channel

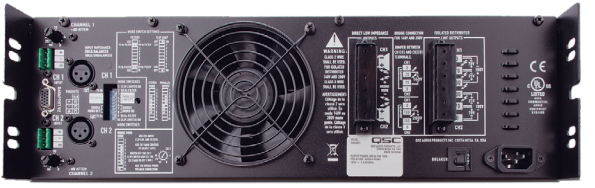
Model	70 V*	8 Ω	4 Ω	2 Ω*
CX302V	250	–	–	–
CX602V	440	550	–	–
CX1202V	1000	700	1100	–
CX302	–	200	325	600
CX502	–	300	500	800
CX702	–	425	700	1200
CX902	440	550	900	1500
CX1102	1000	700	1100	1700
CX204V	220	–	–	–
CX254	–	170	250	450
CX404	–	250	400†	–
CX108V	100	–	–	–
CX168	–	90	130	–

All channels driven. 20 Hz – 20 kHz, 0.05% THD *1 kHz, 0.05% THD
†1 kHz, 0.1% THD

ISA Series Amplifiers

ISA Series amplifiers are an ideal, cost-effective solution for fixed installation applications requiring distributed loudspeakers. There are seven models in the line, four low impedance models (ISA 280, ISA 450, ISA 750, ISA 1350) rated down to 2 Ω loads and three inTi in versions (ISA 300Ti, ISA 500Ti, ISA 800Ti) featuring isolated transformers for 25, 70 and 100 V distributed audio systems. The DataPort V2 Lite connection facilitates the use of amplifier accessories (XC-3, LF-3 and SF-3) providing economical crossover and subwoofer filtering solutions.

- Up to 2400 W total output power
- 3RU chassis with rear-mounted gain controls featuring 2 dB detents
- Independent, defeatable clip limiters reduce distortion and protect loudspeakers
- Selectable high-pass filters protect against transformer saturation and driver over excursion
- Includes extensive DC, infrasonic, thermal overload, and short circuit protection
- XLR and 3-pin block input connectors and touch-proof barrier strip outputs



ISA 500Ti

Watts per channel

Model	70 V* / 100 V	8 Ω**	4 Ω**	2 Ω†
ISA280	-	185	280	430
ISA450	-	260	425	700
ISA750	-	450	650	1200
ISA1350	1500†	800	1300	2000
ISA300Ti	300	185	280	430
ISA500Ti	500	260	425	700
ISA800Ti	800	450	650	1200

*50 Hz – 16 kHz, 0.5% THD **20 Hz – 20 kHz, 0.1% THD †1 kHz, 1% THD
†Direct Output, 70V, less than 0.1% THD, 20 Hz – 20 kHz, +0/-0.3 dB

LOUDSPEAKERS

AcousticCoverage™ Series Loudspeakers

Ceiling-mount

AcousticCoverage™ Series is designed to offer integrators a cost effective solution for applications where voice reinforced coverage is of primary concern, while providing improved musicality often not seen in typical BGM class products. Applications for AccousticCoverage™e Series loudspeakers include wide area paging systems, background music, distance conferencing reinforcement, healthcare facilities, concourses, transportation terminals and more.

- High quality transducers provide exceptional clarity through the critical voice range
- Ported baffle for increased low frequency extension
- Low saturation 70/100 V transformers with 8 Ω bypass
- 4-pole Euroblock connector eases system wiring
- Advanced voicing filter sets using Intrinsic Correction™ available through Q-SYS™
- White (RAL 9010) with UV inhibitors to match complimenting QSC loudspeaker series
- Complete EASE, CAD & BIM information available online

	AC-C2T	AC-C4T	AC-C2T-LP
Frequency range (-10 dB)	80 Hz – 20 kHz	70 Hz – 16 kHz	70 Hz – 20 kHz
Power capacity[1]	16 W	16 W	16 W
Broad-band sensitivity[2]	86.5 dB	89 dB	84 dB
Coverage angle	150° (500 Hz - 5 kHz)	140° (500 Hz - 5 kHz)	170° (500 Hz to 5 kHz)
Output[3] **(peak SPL @ 1m)**	104.5 dB	107 dB	102 dB
Driver information	2.5 in Polypropylene cone with butyl rubber surround	4.5 in Polypropylene cone with butyl rubber surround	2.75 in weather-treated paper cone
Rated impedance	8 Ω	8 Ω	8 Ω
Input connectors	Euroblock connector with parallel output terminals	Euroblock connector with parallel output terminals	Input connectors: same as the other two
Baffle material	Painted ABS polymer	Painted ABS polymer	Painted ABS polymer
Cut-out dimension	Ø 7.3 in (Ø 186 mm)	Ø 7.3 in (Ø 186 mm)	Ø 9 in (Ø 229 mm)
Product dimension	Ø 8.4 in x 7.9 in (Ø 214 x 201 mm)	Ø 8.4 in x 7.9 in (Ø 214 x 201 mm)	Ø 10.35 x 3.82 in (Ø 263 x 97 mm)
Net weight	4.2 lb / 1.9 kg	4.9 lb / 2.22 kg	4.2 lb / 1.9 kg

1 IEC60268-1 noise signal for 2 Hrs.
2 On-Axis, free-field sensitivity, 2.83V, 1 m.
3 Calculated from rated noise voltage and sensitivity.

AcousticCoverage™ Series Loudspeakers

Ceiling-mount

	AC-C6T	AC-C8T
Frequency range (-10 dB)	65 Hz – 20 kHz	52 Hz – 20 kHz
Power capacity[1]	30 W	80 W
Broad-band sensitivity[2]	89 dB	89 dB
Coverage angle	110° (500 Hz - 5 kHz)	100° (500 Hz - 5 kHz)
Output[3] **(peak SPL @ 1m)**	110 dB	114 dB
Driver information LF	6.5 in polypropylene cone with butyl rubber surround	8 in treated paper cone
HF	0.86 in silk dome tweeter, coaxially mounted	0.86 in silk dome tweeter
Rated impedance	8 Ω	8 Ω
Input connectors	Euroblock connector with parallel output terminals	Euroblock connector with parallel output terminals
Baffle material	Painted ABS polymer	Painted ABS polymer
Cut-out dimension	Ø 9 in (Ø 229 mm)	Ø 11.2 in (Ø 285 mm)
Product dimension	Ø 10.24 x 8.4 in (Ø 260 x 213 mm)	Ø 12.4 x 11.3 in (Ø 316 x 288 mm)
Net weight	7.6 lb / 3.5 kg	11.5 lb / 5.2 kg

1 IEC60268-1 noise signal for 2 Hrs.
2 On-Axis, free-field sensitivity, 2.83V, 1 m.
3 Calculated from rated noise voltage and sensitivity.

Non-UL Versions

	AC-C4T-NB	AC-C8T-NB
Frequency range (-10 dB)	62 Hz – 18 kHz	53 Hz – 20 kHz
Power capacity[1]	6 W	6 W
Broad-band sensitivity[2]	93 dB	96 dB
Coverage angle	140° (500 Hz - 5 kHz)	130° (500 Hz - 5 kHz)
Output[3] **(Peak SPL @ 1m)**	107 dB	110 dB
Driver information	4 in treated paper cone	8 in treated paper cone
Rated impedance	8 Ω	8 Ω
Input connectors	Bare wire transformer taps	Bare wire transformer taps
Baffle material	Painted ABS polymer	Painted ABS polymer
Cut-out dimension	Ø 9 in (Ø 228 mm)	Ø 11.06 in (Ø 281 mm)
Product dimension	Ø 10.25 x 5.8 in (Ø 260 x 148 mm)	Ø 12.3 x 4.2 in (Ø 313 x 107 mm)
Net weight	2.6 lb / 1.2 kg	3.4 lb / 1.5 kg

1 IEC60268-1 noise signal for 2 Hrs.
2 On-Axis, free-field sensitivity, 2.83V, 1 m.
3 Calculated from rated noise voltage and sensitivity.

AcousticDesign™ Series Loudspeakers

Ceiling-mount

The second generation of AcousticDesign™ Series ceiling-mount loudspeakers are high quality 70/100 V, two-way, full-range systems ideal for a wide variety of foreground, background, paging, and distance-conferencing applications.

Designer friendly:

- Available in white (RAL 9010) or black (RAL 9011)
- Paintable grill & bevel
- Deliberate 23 mm bezel width to match T-bar
- Complete EASE, CLF, CAD & BIM information available online

Application diverse:

- UL listed (UL 1480 / UL2043)
- EN54-24 for use in voice alarm systems
- UV Inhibitors in all white models
- Powder-coated grills
- Weather-treated cones

Install ready:

- SnapFit magnetic grills
- Low saturation 70/100 V transformers
- 16 Ω low impedance bypass
- 3x long-travel dog-ears
- Screw-down Euro block connector with loop-through
- Removable conduit cover with no loose screws
- Low profile, short back-can versions available

Factory optimized:

- **DMT (Directivity Matched Transition™):** Ensures smooth, uniform frequency response over the rated coverage area
- **Intrinsic Correction™:** When paired with Q-SYS network amplifiers, custom QSC loudspeaker voicings help to further reduce installation and setup time by taking the tuning process out of the installers' hands.

AcousticDesign™ Series Loudspeakers

Ceiling-mount

AD-C4T-BK
AD-C4T-WH

AD-C4T-LP

Frequency range (-10 dB)	70 Hz – 20 kHz	70 Hz – 20 kHz
Power capacity[1]	30 W	30 W
System sensitivity[2]	87.5 dB	87 dB
Coverage angle	150° conical DMT	150° conical DMT
Output[3] **(peak SPL @ 1m)**	108 dB	108 dB
Driver information		
LF	4.5 in weather treated paper cone woofer	4.5 in weather treated paper cone woofer
HF	0.75 in aluminum dome tweeter	0.75 in aluminum dome tweeter
Rated impedance	16 Ω	16 Ω
UL1480 and UL2043 certified	Yes	Yes
EN54-24 Type A	Yes	No
Input connectors	4-pin Euro terminals	4-pin Euro terminals
Cut-out dimension	Ø 7.68 in (Ø 195 mm)	Ø 9.65 in (Ø 245 mm)
Product dimension	Ø 9.06 in x 6.93 in (Ø 230 x 176 mm)	Ø 11.02 in x 3.93 in (Ø 280 x 100 mm)
Net weight	6.4 lb / 2.9 kg	6.6 lb / 3 kg

1 IEC60268-1 noise signal for 2 Hrs.
2 On-Axis, free-field sensitivity, 2.83V, 1 m.
3 Calculated from rated noise voltage and sensitivity.

	AD-C6T-BK AD-C6T-WH	AD-C6T-LP
Frequency range (-10 dB)	65 Hz – 20 kHz	65 Hz – 20 kHz
Power capacity[1]	60 W	60 W
System sensitivity[2]	88 dB	88 dB
Coverage angle	135° conical DMT	135° conical DMT
Output[3] **(peak SPL @ 1m)**	112 dB	112 dB
Driver information LF HF	6.5 in weather treated paper cone woofer 1 in aluminum dome tweeter	6.5 in weather treated paper cone woofer 1 in aluminum dome tweeter
Rated impedance	16 Ω	16 Ω
Input connectors	4-pin Euro terminals	4-pin Euro terminals
UL1480 and UL2043 certified	Yes	Yes
EN54-24 Type A	Yes	No
Cut-out dimension	Ø 9.65 in (Ø 245 mm)	Ø 12 in (Ø 305 mm)
Product dimension	Ø 11.02 in x 9.32 in (Ø 280 x 237 mm)	Ø 13.37 in x 3.95 in (Ø 340 x 100 mm)
Net weight	9.5 lb / 4.3 kg	9.3 lb / 4.2 kg

1 IEC60268-1 noise signal for 2 Hrs.
2 On-Axis, free-field sensitivity, 2.83V, 1 m.
3 Calculated from rated noise voltage and sensitivity.

AcousticDesign™ Series Loudspeakers

Ceiling-mount

	AD-C6T-HC	AD-C6T-HP
Description	6.5 in, two-way ceiling-mount loudspeaker with transformer; for higher power handling and tighter coverage area for high ceilings or reverberant spaces	6.5 in, two-way ceiling-mount loudspeaker with transformer; for higher power handling at standard ceiling heights
Transducers	6.5 in (165 mm) paper cone woofer, 1.75 in (44.5 mm) voice coil, ferrite magnet 1.4 in (35.6 mm) kapton dome compression tweeter	6.5 in (165 mm) paper cone woofer, 1.75 in (44.5 mm) voice coil, ferrite magnet 1.4 in (35.6 mm) kapton dome compression tweeter
Sensitivity	91 dB @ 1 W, 1 m	90 dB @ 1 W, 1 m
Freq. range (-10 dB)	45 Hz - 20 kHz	58 Hz - 20 kHz
Rated noise power (@16 Ω bypass)	120 W	120 W
Coverage (-6 dB)	75°	120°
Directivity factor	4.6	3.6
Directivity index	6.6 dB	5.6 dB
Max SPL (continuous/peak)	110 dB/116 dB @ 1 m	110 dB/116 dB @ 1 m
Taps (70 V/ 100 V)	7.5 W, 15 W, 30 W, 60 W/ 15 W, 30 W, 60 W	7.5 W, 15 W, 30 W, 60 W/ 15 W, 30 W, 60 W
Bypass impedance	16 Ω	16 Ω
Min impedance	14.97 Ω @ 208 Hz	15.4 Ω @ 281 Hz
Crossover frequency	2.5 kHz	2.6 kHz
Input	4-pin Euroblock connector with parallel output	4-pin Euroblock connector with parallel output
Net Weight	19 lb (8.58 kg)	13.39 lbs (6.07 kg)
Product dimensions	12 x 13.4 x 13.4 in (313 x 340 x 340 mm)	9.3 x 11 x 11 in (235 x 280.5 x 280.5 mm)

AcousticDesign™ Series Loudspeakers

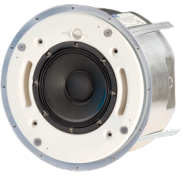
Ceiling-mount

AD-C820R/S | AD-C821R/S

The AD-C820R/S and AD-C821R/S (R for Round Grill and S for Square Grill) loudspeaker systems are designed for ceiling mounted loudspeaker applications requiring high SPL output. The AD-C820R/S Systems ship with the AD-C800BB backcan and are perfect for pre-installed applications.

The AD-C821R/S systems incorporate a fully integrated, factory sealed enclosure and use indog-ear in style mounting - perfect for blind mount installations. Both models also include a set of tile rails and C-rings to complete the installation.

- 8-inch low-frequency woofer with 1.4-inch diaphragm coaxially-mounted compression driver
- 52 Hz – 18 kHz frequency range
- 200 W continuous power rating
- 90° conical coverage
- 70 /100 V multi-tap transformer included with low impedance bypass
- Ceramic input screw terminal complies with European safety standards
- AD-C820 transducer/baffle assembly for separated backcan installation
- AD-C821 designed as a fully integrated blind-mount system



AD-C820/C821

Effective frequency range	52 Hz – 18 kHz
Power capacity[1]	200 W (100 hrs)
Sensitivity[2]	91 dB
Nominal coverage	90° conical
Output[3] **(peak SPL @ 1m)**	120 dB
Driver information	
LF	8 in weather treated, cone woofer
HF	1.4 in coaxial compression driver
Rated impedance	16 Ω
Input connectors	AD-C820: Ceramic block AD-C821: 4-pin Euroblock Fire protective sub-chamber
Enclosure	UL-rated steel backcans
Net weight (each)	17.5 lb / 7.9 kg
Product dimensions	Ø 14.9 in (Ø 379 mm) x 8.3 in (211 mm)

1 Continuous IEC specified test signal, 2 hours unless otherwise stated.
2 Based on nominal impedance, measured in full space. 1 W @ 1 m.
3 Calculated using specified power capacity and system sensitivity. 6 dB peak-to-average signal ratio assumed.

AD-C1200

The AD-C1200 loudspeaker is designed for ceiling mounted loudspeaker applications requiring high SPL output. The AD-C1200 features coaxial LF/HF transducers, a transformer and a crossover network factory-mounted on a steel baffle. The baffle is designed to mount to the QSC enclosure (AD-C1200BB) or to any 2.5-inch enclosure using industry-standard transducer / baffle mounting points.

AD-C81Tw

The AD-C81Tw is a ceiling mounted subwoofer designed for use with both ceiling-mount and surface mounts AcousticDesign Series loudspeakers. Like the smaller format, full-range models, the AD-C81Tw utilizes dog-ear mounting tabs and ships complete with C-rings and tile rails.

	AD-C81Tw	AD-C1200
Frequency range (-10 dB)	28 Hz – 208 Hz	37 Hz – 18 kHz
Power capacity[1]	250 W (100 hrs)	300 W (100 hrs)
System sensitivity[2]	94 dB	93 dB
Coverage angle	N/A	85° conical
Output[3] **(peak SPL @ 1m)**	118 dB	124 dB
Driver information		
LF	8 in weather treated, polypropelene cone woofer, rubber surround	12 in weather treated cone woofer, 75 mm voice coil, ferrite magnet
HF	N/A	1.75 in co-axial compression driver
Rated impedance	8 Ω	16 Ω
Input connectors	Ceramic block or 4-pin Euro terminals, fire protective sub-chamber	Ceramic block terminals Fire protective sub-chamber
Cut-out dimensions	Ø 11.65 in (Ø 296 mm)	
Product dimensions	Ø 12.6 x 14.5 in (Ø 321 x 368 mm)	(HWD) 23 x 18 x 15.5 in (584 x 454 x 393 mm)
Enclosure	Steel back can	
Net weight (each)	7.5 lb / 3.4 kg	78 lb / 35.3 kg

1 Continuous IEC specified test signal, 2 hours unless otherwise stated.
2 Based on nominal impedance, measured in full space. 1 W @ 1 m.
3 Calculated using specified power capacity and system sensitivity. 6 dB peak-to-average signal ratio assumed.

AcousticDesign™ Series Loudspeakers

Pendant-mount

AcousticDesign™ Series pendant-mount loudspeakers are high quality 70/100 V, two-way, full-range systems ideal for a wide variety of foreground and background business music applications.

Designer friendly:

- Deliberately unobtrusive industrial design
- Available in white (RAL 9010) or black (RAL 9011)

Application diverse:

- Lightweight rugged ABS construction
- UV Inhibitors in all white models
- IP-54 rating for dust and splash resistance

Install ready:

- SnapFit magnetic grills
- Low saturation 70/100 V transformers
- 16 Ω low impedance bypass
- Sealable input weather cup – keeps moisture away from wiring

Factory optimized:

- **DMT (Directivity Matched Transition™):** Ensures smooth, uniform frequency response over the rated coverage area.
- **Intrinsic Correction™:** When paired with Q-SYS, custom QSC loudspeaker voicings help to further reduce installation and setup time by taking the tuning process out of the installers' hands.

AcousticDesign™ Series Loudspeakers

Pendant-mount

	AD-P4T-BK AD-P4T-WH	AD-P6T-BK AD-P6T-WH
Effective frequency range	70 Hz – 20 kHz	65 Hz – 20 kHz
Power capacity[1]	30 W	60 W
System sensitivity[2]	87.5 dB	88 dB
Coverage angle	150° conical DMT	140° conical DMT
Output[3] **(peak SPL @ 1m)**	108 dB	112 dB
Driver information		
LF	4.5 in weather treated paper cone woofer	6.5 in weather treated paper cone woofer
HF	0.75 in aluminum dome tweeter	1 in aluminum dome tweeter
Rated impedance	16 Ω	16 Ω
Input connectors	4-pin Euro terminals	4-pin Euro terminals
Net weight	6.5 lb / 2.9 kg	9 lb / 4.1 kg
Product dimensions	Ø 9.3 x 10.7 in (Ø 237 x 272 mm)	Ø 11.3 x 12.7 in (Ø 287 x 323 mm)

1 Free-field, -10 dB from on-axis sensitivity.
2 On-Axis, free-field sensitivity, 2.83V, 1 m.
3 Calculated from rated noise voltage and sensitivity.

AcousticDesign™ Series Loudspeakers

Pendant-mount

AD-P Halo

The QSC AD-P.HALO is a purpose-built, integrated SUB/SAT pendant loudspeaker system, featuring an integrated 6.5" subwoofer and four 2.75" satellite transducers in a single enclosure. Designed for business music installations where music drives the atmosphere, it features a 200 W RMS power rating with significant dynamic headroom that far surpasses the performance of traditional two-way, pendant-mount loudspeakers

- **True all-in-one solution with no assembly required:** The AD-P.HALO is purpose-designed and fully integrated in a single-enclosure pendant that is ready to hang right out of the box. This hassle-free philosophy helps simplify and expedite the installation, which can lower the overall project costs and allow the integrator to focus on the sound.
- **Ultimate performance and musicality:** The 200 W RMS power rating provides significant dynamic headroom that delivers high-performance and musicality to high-end retail or hospitality applications where sound drives the atmosphere
- **AcousticDesign series loudspeakers:** AD-P.HALO extends the AcousticDesign Series portfolio of loudspeakers, which offer sleek aesthetic design and high-quality sound across multiple form factors (ceiling-mount, pendant-mount and surface-mount).

  Mix & match capabilities: AD Series maintain consistent sonic characteristics across all form factors to provide design flexibility for any installed application.

  Intrinsic correction™: When paired with Q-SYS, custom QSC loudspeaker voicings help to further reduce installation and setup time by taking the tuning process out of the installers' hands.

AD-P.HALO-BK / AD-P.HALO-WH

Effective frequency range[1]	40 Hz – 20 kHz
Rated noise power[5]	100 W
Sensitivity[2]	86 dB
Coverage[2,3]	110° (conical)
Output[4] **(peak SPL @ 1 m)**	111 dB
Driver information:	
LF	One 6.5 in. dual voice subwoofer, paper cone
HF	Four 2.75 in. full-range speakers, paper cone
Transformer	100 W, 6 Ω bypass

1. -10 dB from rated sensitivity, anechoic chamber, 2.45 V, 1m, on reference axis
2. From Thiele-Small parameters @ 2.45, 1 m
3. 500 Hz - 5 kHz
4. Calculated from rated noise power and sensitivity
5. IEC, 2hrs, 6 Ω nominal impedance

AcousticCoverage™ Series Loudspeakers

Surface-mount

AC-S6T

AC-S4T

AcousticCoverage™ Series is designed to offer integrators a cost effective solution for applications where voice reinforced coverage is of primary concern, while providing improved musicality often not seen in typical BGM class products. Applications for AccousticCoverage™ loudspeakers include wide area paging systems, background music, distance conferencing reinforcement, healthcare facilities, concourses, transportation terminals and more.

- High quality transducers provide exceptional clarity through the critical voice range
- Ported baffle for increased low frequency extension
- Low saturation 70/100 V transformers with 8 Ω bypass
- 4-pole Euroblock connector eases system wiring
- Advanced voicing filter sets using QSC's Intrinsic Correction™ available through Q-SYS
- Spring-loaded and rotatable logo on grill for installation convenience in either horizontal or vertical deployments
- Complete EASE, CAD & BIM information available online

	AC-S4T-BK AC-S4T-WH	AC-S6T-BK AC-S6T-WH
Effective frequency range (-10 dB)	70 Hz – 20 kHz	60 Hz – 20 kHz
Power capacity[1]	16 W	30 W
System sensitivity[2]	85 dB SPL	86 dB SPL
Coverage angle	130° (500 Hz - 5 kHz)	130° (500 Hz - 5 kHz)
Output[3] **(peak SPL @ 1m)**	103 dB	107 dB
Driver information	4.5 in polypropylene woofer with 1 in voice-coil	6.5 in polypropylene woofer with 1 in voice-coil
Rated impedance	8 Ω	8 Ω
Input connectors	Euroblock connector with parallel output terminals	Euroblock connector with parallel output terminals
Baffle material	Painted ABS polymer	Painted ABS polymer
Net weight	5.2 lb / 2.4 kg	8.3 lb / 3.8 kg
Product dimensions (HWD)	9.1 x 6.3 x 5.9 in (230 × 160 × 150 mm)	11.9 x 8.5 x 7.8 in (303 × 215 × 197 mm)

1 IEC60268-1 noise signal for 2 Hrs.
2 On-Axis, free-field sensitivity, 2.83V, 1 m.
3 Calculated from rated noise voltage and sensitivity.

AcousticDesign™ Series Loudspeakers

Column Surface-mount

The all new AcousticDesign™ Series column surface-mount loudspeakers are high quality 70/100 V or 8 Ω bypass, full-range systems ideal for a wide variety of foreground and background applications with acoustically-challenged environments.

Designer friendly:

- Deliberately unobtrusive industrial design
- Available in white (RAL 9010) or black (RAL 9011)
- Paintable enclosure and grill
- Complete EASE, CLF, CAD & BIM information available online

Application diverse:

- Rugged aluminum construction
- UV Inhibitors in all white models
- IP-54 rating for dust and splash resistance
- Powder-coated grills and weather-treated cones

Install ready:

- Close to wall pan/tilt bracket included
- Low saturation 70/100 V transformers
- 8 Ω low impedance bypass
- Selectable broad/narrow beam contour (AD-S162T only)
- Screw-down Euro block connector with loop-through
- Sealable input weather cup – keeps moisture away from wiring

AD-S402T

AD-S802T

AD-S162T

	AD-S402T	AD-S802T	AD-S162T
Effective frequency range[1]	90 Hz - 17 KHz	90 Hz – 17 kHz	90 Hz - 17 kHz
Power capacity[2]	120 W	120 W	200 W
System sensitivity[3]	87 dB	87 dB	88 dB wide 89 dB narrow
Coverage angle horizontal (-6 dB)	160 deg (1 kHz - 10 kHz)	160 deg (1K - 10 kHz)	160 deg wide 160 deg narrow
Coverage angle vertical (-6 dB)	20 deg (1 kHz - 17 kHz)	20 deg (1 kHz - 10 kHz)	30 deg wide 15 deg narrow
Output[4] **(peak SPL @ 1m)**	114 dB	114 dB	117 dB wide 118 dB narrow
Driver information	8x 2.5 in weather treated paper cone woofer	(x8) 2.5 in weather treated paper cone woofer	(x16) 2.5 in weather treated paper cone woofer
Rated impedance	8 Ω	8 Ω	8 Ω
Input connectors	4-pin Euroblock	4-pin Euro terminal	4-pin Euro terminal
Enclosure	Aluminum	Aluminum	Aluminum
Ingress protection	IP-54	IP-54	IP-54
Net weight	14.4 lb / 6.55 kg	14.4 lb / 6.55 kg	25 lb / 11.36 kg
Product dimensions (HWD)	23.4 x 5.2 x 5 in (595 x 131 x 126 mm)	23.4 x 5.2 x 5 in (595 x 131 x 126 mm)	45.8 x 5.2 x 5 in (1162 x 131 x 126 mm)

1 Free-field, -10 dB from on-axis sensitivity.
2 IEC60268-1 noise signal for 2 Hrs.
3 On-Axis, free-field sensitivity, 2.83V, 1 m.
4 Calculated from rated noise voltage and sensitivity.

AcousticDesign™ Series Loudspeakers

Surface-mount

The second generation of AcousticDesign™ Series surface-mount loudspeakers are professional, 70/100V, two-way, full-range systems ideal for a wide variety of foreground, background, ancillary and sound reinforcement. Ease-of-installation was the driving principle behind these new surface loudspeakers, culminating in the patented X-Mount™ wall bracket with best-in-class functionality and repeatable angles.

Designer friendly:

- Available in white (RAL 9010) or black (RAL 9011)
- Paintable grill & enclosure
- Complete EASE, CLF, CAD & BIM information available online

Application diverse:

- IP-54 for dust and splash resistance
- Lightweight rugged ABS construction with UV Inhibitors
- Powder coated aluminum grills, X-Mount™ and treated hardware
- Weather-treated cones

Install ready:

- Patented X-Mount provides rapid deployment with repeatable angles
- Low saturation 70/100 V transformers (excluding AD-S12/AD-S112SW)
- 8 Ω low impedance bypass
- Euro block connector with loop-through
- Sealable input weather cup - keeps moisture away from wiring
- Optional yoke mount and M10 Kit-C for larger models (AD-S8T/AD-S10T/AD-S12)

Input terminal cover

Patented X-Mount™ mounting system

Factory optimized:

- **DMT (Directivity Matched Transition™):** Ensures smooth, uniform frequency response over the rated coverage area.
- **Intrinsic Correction™:** When paired with Q-SYS network amplifiers, custom QSC loudspeaker voicings help to further reduce installation and setup time by taking the tuning process out of the installers' hands.

AcousticDesign™ Series Loudspeakers

Surface-mount

	AD-S4T-BK AD-S4T-WH	AD-S5T-BK AD-S5T-WH	AD-S6T-BK AD-S6T-WH
Effective frequency range[1]	70 kHz – 20 kHz	60 kHz – 20 kHz	60 kHz – 20 kHz
Power capacity[2]	50 W	100 W	150 W
System sensitivity[3]	87 dB SPL	86 dB SPL	89 dB SPL
Coverage angle (-6 dB)	120° conical DMT	115° conical DMT	105° conical DMT
Output[4] **(peak SPL @ 1m)**	110 dB	112 dB	116 dB
Driver information			
LF	4.5 in weather treated paper cone woofer	5.25 in paper cone woofer, 1 in voice coil	6.5 in weather treated paper cone woofer
HF	0.75 in silk dome tweeter / 0.75 in voice-coil	1 in damped fabric dome tweeter, 1 in voice coil	1 in silk dome tweeter / 1 in voice-coil
Rated impedance	8 Ω	8 Ω	8 Ω
Input connectors	Euroblock connector with parallel output terminals		
Enclosure	Painted ABS polymer	Painted ABS polymer	Painted ABS polymer
Ingress protection	IP-54	IP-54	IP-54
Net weight	6.5 lb / 2.95 kg	20.2 lbs / 9.2 kg (pair packed)	13.6 lb / 6.2 kg
Product dimensions (HWD)	10.3 × 6.34 × 6.42 in (261 × 161 × 163 mm)	15.9 × 10.3 × 18.3 in (405 × 262 × 465 mm)	14.4 × 8.5 × 8.5 in (365 × 215 × 215 mm)

1 Free-field, -10 dB from on-axis sensitivity.
2 IEC60268-1 noise signal for 2 Hrs.
3 On-Axis, free-field sensitivity, 2.83 V, 1 m.
4 Calculated from rated noise voltage and sensitivity.

	AD-S8T-BK AD-S8T-WH	AD-S10T-BK AD-S10T-WH
Effective frequency range[1]	55 kHz – 20 kHz	50 Hz – 19 kHz
Power capacity[2]	200 W	250 W
System sensitivity[3]	90 dB SPL	92 dB SPL
Coverage angle (-6 dB)	105° conical DMT	90° conical DMT
Output[4] **(peak SPL @ 1m)**	121 dB	122 dB
Driver information		
LF	8 in weather treated paper cone woofer	10 in weather treated paper cone woofer, 2.5 in / 64 mm voice-coil
HF	1 in exit / 1.4 in voice-coil compression driver	1 in exit / 1.4 in voice-coil compression driver
Rated impedance	8 Ω	8 Ω
Input connectors	Euroblock connector with parallel output terminals	
Enclosure	Painted ABS polymer	Painted ABS polymer
Ingress protection	IP-54	IP-54
Net weight	24.1 lb / 11 kg	31 lb / 15 kg
Product dimensions (HWD)	17.3 × 10 × 9.9 in (440 × 254 × 251 mm)	20.3 × 12.5 × 11.7 in (516 × 318 × 298 mm)

1 Free-field, -10 dB from on-axis sensitivity.
2 IEC60268-1 noise signal for 2 Hrs.
3 On-Axis, free-field sensitivity, 2.83 V, 1 m.
4 Calculated from rated noise voltage and sensitivity.

AcousticDesign™ Series Loudspeakers

Surface-mount

	AD-S12-BK AD-S12-WH	AD-S112sw-BK AD-S112sw-WH
Effective fequency range[1]	52 Hz – 20 kHz	30 Hz - 135 Hz
Power capacity[2]	300 W	300 W
System sensitivity[3]	95 dB SPL	90 dB SPL
Coverage angle (-6 dB)	75° conical DMT	N/A
Output[4] **(peak SPL @ 1m)**	126 dB	121 dB
Driver information		
LF	12 in weather treated paper cone woofer, 2.5 in / 64mm voice-coil	12 in weather treated paper cone woofer, 2.5 in / 64mm voice coil
HF	1 in exit / 1.4 in voice-coil compression driver	
Rated impedance	8 Ω	8 Ω
Input connectors	Euroblock connector with parallel output terminals	
Enclosure	Painted ABS polymer	Painted ABS polymer
Ingress protection	IP-54	IP-54
Net weight	35 lb / 16 kg	29 lb / 13.2 kg
Product dimensions	23.4 x 13.9 x 12.7 in (594 x 354 x 323 mm)	23.4 x 13.9 x 12.7 in (594 x 354 x 323 mm)

1 Free-field, -10 dB from on-axis sensitivity.
2 IEC60268-1 noise signal for 2 Hrs.
3 On-Axis, free-field sensitivity, 2.83 V, 1 m.
4 Calculated from rated noise voltage and sensitivity.

AD-S10T with patented
X-Mount™ mounting system

AcousticDesign™ Series Loudspeakers

Indoor/Outdoor Surface-mount

AD-S32T

Ideal for background and general purpose audio playback, the AD-S32T loudspeaker offers a full sound in a surprisingly small package. For outdoor applications, the plated screw input signal terminals can be sealed with the included weather cover.

- Includes ball mount assembly and yoke mount
- Enclosure is molded from high impact polystyrene (HiPS)
- Powder coated aluminum grill
- Available in black or white
- Sealable input weather cup – keeps moisture away from wiring

AD-S282H/AD-S282HT

For installations requiring additional low-frequency performance combined with higher acoustical output, the dual 8-inch AD-S282H / AD-S282HT is an ideal solution. The AD-S282H / AD-S282HT features contemporary styling and is perfect for a variety of environments and applications.

- Low impedance (AD-S282H) and 70/100 V with 8 ohm bypass (AD-S282HT) versions
- Enclosure is molded from high impact polystyrene (HiPS)
- Powder coated aluminum grill
- Available in black or white
- Yoke bracket included

	AD-S32T-BK AD-S32T-WH	AD-S282H-BK AD-S282H-WH	AD-S282H-BK AD-S282H-WH
Effective frequency range (-10 dB)[1]	65 Hz – 20 Hz	60 Hz – 20 kHz	60 Hz – 20 kHz
Power capacity[2]	30 W (100 hrs)	450 W (8 hrs)	450 W (8 hrs)
System sensitivity[3]	85 dB	93 dB	93 dB
Coverage angle	100° conical	90°H x 60°V rotatable	90°H x 60°V rotatable
Rated impedance	8 Ω	8 Ω	8 Ω
Output[4] (peak SPL @ 1m)	105 dB	126 dB	126 dB
Driver information LF	3 in weather treated, poly-propylene cone woofer	Dual 8 in high-power treated cone, 2 in voice coil, neodymium magnet	Dual 8 in high-power treated cone, 2 in voice coil, neodymium magnet
HF	0.75 in neodymium tweeter	1 in high output compression driver	1 in high output compression driverw
Rated impedance	8 Ω	8 Ω	8 Ω
Input connectors	Screw terminals	Barrier strip (switchable: passive/bi-amp)	Barrier strip
Enclosure	Injection molded, weather treated high impact polystyrene		
Net weight	4 lb / 1.8 kg	27.7 lb / 12.6 kg	27.7 lb / 12.6 kg
Product dimensions (HWD)	7.9 x 4.8 x 5.5 in (202 x 123 x 140 mm)	26.2 x 10.2 x 11.4 in (665 x 259 x 290 mm)	26.2 x 10.2 x 11.4 in (665 x 259 x 290 mm)

1 Free-field, -10 dB from on-axis sensitivity.
2 IEC60268-1 noise signal for 2 Hrs.
3 On-Axis, free-field sensitivity, 2.83 V, 1 m.
4 Calculated from rated noise voltage and sensitivity.

AcousticDesign™ Series AD-S28Tw Subwoofer

Surface-mount

Designed and acoustically matched for use with AcousticDesign™ Series installation loudspeakers, the AD-S28Tw is a dual 8-inch surface mount subwoofer that complements any of the ceiling-mount or surface-mount AD Series full-range models. Efficient band-pass design features one sealed chamber and a second, ported chamber that combine to produce extended low frequency reproduction.

- Dual 8 in weather treated polypropylene woofers provide exceptional resistance in high humidity environments
- Bass extension down to 36 Hz
- Built-in, passive 120 Hz low-pass filter
- 70/100 volt multi-tap transformer with 8 Ω bypass
- Marine grade plywood enclosure
- Nickel plated screw terminals accept up to 12 AWG (2.053 mm2) wiring
- Rubber feet allow floor or shelf deployment
- Forged-shoulder eyebolts and steel yoke enable suspended installation (included)

AD-S28Tw

Effective frequency range (-10 dB)[1]	36 Hz – 205 Hz
Power capacity[2]	250 W (2 hours IEC)
System sensitivity	94 dB, 2.83 V, 1 m, half space (2π)
Output[3] 2π (half space) 4π (full space)	 124 dB SPL / 118 dB SPL 118 dB SPL / 112 dB SPL
Driver information	Dual 8 in (200 mm) weather treated, polypropylene cone woofers, rubber surround
Nominal impedance	8 Ω
Input connectors	4 position barrier strip; 2 in / 2 out
Enclosure	Marine-grade plywood
Environmental	Exceeds mil spec 810 for humidity, salt spray and dust; IEC 60529 IP-X4 splash rating
Net weight	43 lb / 19.5 kg
Product dimensions (HWD)	15.9 x 9.9 x 22.8 in (404 x 251 x 603 mm)

1. All frequency ranges specified refer to measured free field response.
2. Maximum input power tested in accordance with IEC 268-5 recommendations, 50 Hz – 20 kHz band limiting, 6 dB signal crest factor.
3. Calculated SPL at 1m, speaker operating at rated RMS power with pink noise within specified frequency range.

AcousticPerformance™ Series Loudspeakers

Installation Point-and-Shoot

AcousticPerformance™ Series is a line of professional loudspeakers ideally suited for a wide variety of foreground sound reinforcement applications requiring high sound pressure levels from an unobtrusive, stylish enclosure. AcousticPerformance™ Series loudspeakers utilize DMT (Directivity Matched Transition™), a design approach that matches HF waveguide to the natural coverage angle of the woofer at the crossover region. This innovation vastly improves the loudspeakers power response resulting in smooth and consistent coverage, both on and off axis.

- **DMT (Directivity Matched Transition™):** Ensures smooth, coherent power response across the listening plane
- **M10 and yoke mount fittings:** Offer flexible deployment options for a variety of applications
- **Clean industrial design:** Unadorned grilles compliment most decors and settings
- 16-guage powder coated steel grilles
- Complete EASE, CAD, and BIM information available online

	AP-5102	AP-5122
Effective frequency range (-10 dB)[1]	60 Hz – 18 kHz	48 Hz – 18 kHz
Power capacity[2]	450 W / 54 V continuous	550W / 60 V continuous
System sensitivity[3]	94 dB, 1 W @ 1 m	95dB, 1 W @ 1 m
Coverage angle	105° conical DMT	90° conical DMT
Output[4] (peak SPL @ 1m)	127 dB	128 dB
Driver information		
LF	10 in driver with 3 in VC; 450 W / 54 V (2 Hrs)	12 in driver with 4 in VC; 450 W / 60 V (2 Hrs)
HF	3 in voice coil, compression driver; 72 W / 24 V (2 Hrs)	3 in voice coil, compression driver; 72 W / 24 V (2 Hrs)
Rated impedance	8 Ω	8 Ω
Input connectors	Barrier Strip, NL4 connector	Barrier Strip, NL4 connector
Enclosure	15-ply Baltic birch plywood	15-ply Baltic birch plywood
Net weight	48 lb / 21.7 kg	65 lb / 29.5 kg
Product dimensions (HWD)	22 × 12 × 10.5 in (559 x 305 x 267 mm)	26 × 15 × 13 in (660 x 381 x 330 mm)

1 Free-field, -10 dB from on-axis sensitivity.
2 IEC60268-1 noise signal for 2 Hrs.
3 On-Axis, free-field sensitivity, 2.83V, 1 m.
4 Calculated from rated noise voltage and sensitivity.

AcousticPerformance™ Series Loudspeakers

Installation Point-and-Shoot

AP-5152

AP-4122m

	AP-5152	AP-4122m
Effective frequency range (-10 dB)[1]	44 Hz – 18 kHz	50 Hz – 18 kHz
Power capacity[2]	625 W / 65 V continuous	400 W / 40 V continuous
System sensitivity[3]	96 dB, 1 W @1 m	96 dB, 1 W @1 m
Coverage angle	75˚ conical DMT	90˚ conical DMT
Output[4] (peak SPL @ 1m)	129 dB	128 dB
Driver information		
LF	15 in driver with with 102 mm (4 in) VC / 65V (2 Hrs)	12 in driver with 2.5 in VC
HF	3 in voice coil, compression driver; 72 W / 24 V (2 Hrs)	1 in compression driver with 1.75 in VC
Rated impedance	8 Ω	4 Ω
Input connectors	Barrier strip, NL4 connector	Barrier strip, NL4 connector
Enclosure	15-ply baltic birch plywood	15-ply baltic birch plywood
Net weight	80 lb / 36.2 kg	39.7 lb / 18.1 kg
Product dimensions (HWD)	32 × 17.5 × 15.2 in (813 x 445 x 386 mm)	22.5 × 15.1 × 14.5 in (510 × 385 × 370 mm)

1 Free-field, -10 dB from on-axis sensitivity.
2 IEC60268-1 noise signal for 2 Hrs.
3 On-Axis, free-field sensitivity, 2.83V, 1 m.
4 Calculated from rated noise voltage and sensitivity.

As part of our ongoing commitment to product development, specifications are subject to change without notice.

RoHS

AP-212sw

Effective frequency range (-10 dB)[1]	35 Hz – 250 kHz
Power capacity[2]	600 W / 49 V continuous
System sensitivity[3]	93 dB, 1 W @1 m
Coverage angle	NA
Output[4] (peak SPL @ 1m)	127 dB
Driver information LF	2 x 12 in driver with weather treated cone woofer
Rated impedance	4 Ω
Input connectors	Barrier strip, NL4 connector
Enclosure	15-ply baltic birch plywood
Net weight	65.4 lb / 29.7 kg
Product dimensions (HWD)	26 × 15 × 24 in (660 × 381 × 610 mm)

1 Free-field, -10 dB from on-axis sensitivity.
2 IEC60268-1 noise signal for 2 Hrs.
3 On-Axis, free-field sensitivity, 2.83V, 1 m.
4 Calculated from rated noise voltage and sensitivity.

AcousticDesign™ Series Loudspeakers

Small Format SUB/SAT

The AcousticDesign™ Series Sub/Sat loudspeaker line offers premium solutions for unprecedented acoustic performance within a small form factor often desired for architectural acceptance. Backed by the QSC loudspeaker legacy of quality and support, this line supports retail, restaurant, hospitality and other commercial spaces. Even at low volume levels, the AcousticDesign Series Sub/Sat loudspeakers provide exceptional warmth and crystal-clear highs for remarkable acoustic ambiance.

Architecturally pleasing:
Support the aesthetic of demanding installations

- Small form factor with unobtrusive, stylish industrial design
- Available in white (RAL 9010) or black (RAL 9011)
- Paintable, unadorned grills and enclosures

Solution for every space:
One comprehensive catalog simplifies quoting/design process

- Mix-&-match subwoofers and satellites - perfectly balanced sonic characteristics allow interchangeability between enclosure types
- Indoor/outdoor usage - Sealed input panel covers, UV inhibitors, powder-coated aluminum grills, rugged ABS enclosures (for AD surface-mount loudspeakers)
- Complete EASE, DXF, CLF, BIM, REVIT, A&E information available online

Easy to install:
Minimize installation and commissioning labor costs

- Built-in high pass satellite outputs to speed installation and ease wiring
- Screw-down Euro block connectors
- Snap-Fit magnetic grills (for ceiling-mount and pendant models)
- Easy, repeatable mounting system for surface-mount models
- 4 Ω low impedance bypass

	AD-C.SAT	AD-C.SUB
Enclosure type	Ceiling-mount	Ceiling-mount
Effective frequency range (-10 dB)	150 Hz – 20 kHz	45 Hz – 150 kHz
Power capacity[1]	25 W	100 W
System sensitivity[2]	82 dB	150 dB
Coverage angle	110°	150°
Output[3] **(peak SPL @ 1m)**	96 dB	106 dB
Driver information		
LF	N/A	6.5 in DVC subwoofer, paper cone, rubber surround
HF	2.75 in full range, paper cone, rubber surround, inverted aluminum dust cap	N/A
Rated impedance	16 Ω	4 Ω
70 / 100 V	N/A	100 W max tap
UL1480 and UL2043 certified	Yes	Yes
Input connectors	2-pin Euro terminals	4-pin Euro terminals
Cut-out dimension	4.4 in (Ø 112 mm)	11.9 in (Ø 302 mm)
Product dimension	Ø 5.9 x 3.4 in (Ø 150 x 86 mm)	Ø 13.4 x 10 in (Ø 340 x 254mm)
Net weight	1.4 lb / 0.64 kg	19.2 lb / 8.70 kg

1 Free-field, -10 dB from on-axis sensitivity.
2 On-Axis, free-field sensitivity, 2.83V, 1 m
3 Calculated from rated noise voltage and sensitivity.

	AD-P.SAT	AD-P.SUB
Enclosure type	Pendant-mount	Pendant-mount
Effective frequency range	150 Hz – 20 kHz	55 Hz – 150 Hz
Power capacity[1]	25 W	100 W
System sensitivity[2]	82 dB	86 dB
Coverage angle	110°	150°
Output[3] **(peak SPL @ 1m)**	96 dB	106 dB
Driver information		
LF	N/A	6.5 in DVC subwoofer, paper cone, rubber surround
HF	2.75 in full range, paper cone, rubber surround, inverted aluminum dust cap	N/A
Rated impedance	16 Ω	4 Ω
70 / 100 V	N/A	100 W max tap
Input connectors	2-pin Euro terminals	4-pin Euro terminals
Product dimensions	Ø 4.3 x 4.5 in (Ø 110 x 115 mm)	Ø 13.5 x 13.8 in (Ø 345 x 350 mm)
Net weight	0.9 lb / 400 g	16.5 lb / 7.5 kg

1 Free-field, -10 dB from on-axis sensitivity.
2 On-Axis, free-field sensitivity, 2.83V, 1 m
3 Calculated from rated noise voltage and sensitivity.

	AD-S.SAT	AD-S.SUB
Enclosure type	Surface-mount	Surface-mount
Effective frequency range[1]	150 Hz – 20 kHz	45 Hz – 150 Hz
Power capacity[2]	25 W	100 W
System sensitivity[3]	82 dB	86 dB
Coverage angle (-6 dB)	110°	160°
Output[4] **(peak SPL @ 1m)**	96 dB (each satellite)	106 dB
Driver information		
LF	N/A	6.5 in DVC subwoofer, paper cone, rubber surround
HF	2.75 in full range, paper cone, rubber surround, inverted aluminum dust cap	N/A
Rated impedance	16 Ω	8+8 Ω (stereo) or 4 Ω (mono)
70 / 100 V	N/A	100 W max tap
Input connectors	2-pin Euro terminals	4-pin Euro terminals
Net weight	1.0 lb (433 g)	23.6 lb (10.7 kg)
Product dimensions (HWD)	3.5 x 5.4 x 3.6 in (89 x 136 x 92.5 mm)[4]	3.5 x 5.4 x 3.6 in (89 x 136 x 92.5 mm)[5]

1 Free-field, -10 dB from on-axis sensitivity.
2 On-Axis, free-field sensitivity, 2.83V, 1 m
3 Calculated from rated noise voltage and sensitivity.
4 Includes wall bracket (WxDxH)
5 Wall bracket adds 22.5mm to width (WxDxH)

AcousticDesign™ Series Loudspeakers

AD-DWL outdoor landscape loudspeaker system

The AcousticDesign™ Series Direct Weather (AD-DWL) landscape loudspeaker system provides a sleek, rugged solution for customized outdoor installations. With 180° or 360° directional coverage models as well as a companion subwoofer, these tamper-resistant units deliver an integrated sound experience supported by Intrinsic Correction™ advanced voicing filter sets. Designed to withstand a wide range of exposure types, the AD-DWL series provides lasting value without compromising sound quality.

Optimal outdoor sound experience:

- Elevated bollard design allows sound to travel above obstructions
- 180° or 360° coverage models enable outdoor environment customization
- Companion subwoofer model further elevates sound experience

All weather durability:

- Ingress Protection (IP) Rating of IP55
- Durable polypropylene/fiberglass construction
- Stainless-steel hardware

Impact resistance:

- Direct-to-concrete or in-earth base supports for permanent installation
- Tamper-resistant screws
- Rugged paintable exterior

Advanced QSC loudspeaker voicings:

- Advanced voicing filter sets using QSC Intrinsic Correction™ techniques to further enhance performance and speed of install (available via Q-SYS)

	AD-DWL.180	AD-DWL.360	AD-DWL.SUB
Effective frequency range	55 Hz - 25 kHz		49Hz - 200Hz
Power capacity	80 W		160 W
System sensitivity	>84 dB @ 1 W/1m		>84 dB @ 1 W/1m
Coverage angle (-6 dB)	180° (500 Hz – 5 kHz)	360° (500 Hz – 5 kHz)	Omni
Output (peak SPL @ 1m)	110 dB		112 dB
Trandsducers	5.25 in (135 mm) weather resistant cone woofer, ferrite magnet, rubber surround, 1 in (25 mm) , aluminum dome tweeter, rubber surround	5.25 in (135 mm) weather resistant cone woofer, ferrite magnet, rubber surround 2 x 1 in (25 mm) , aluminum dome tweeter, rubber surround	2 x 5.25 in (135 mm) weather resistant cone woofer, ferrite magnet, rubber surround
Rated impedance	16 Ω		
Input connectors	Wire pig-tail, blunt		
Enclosure	Glass-Filled polypropylene, F1-F2 UL Rated		
Net weight	10.36 lb (4.7 kg)		
Product dimensions (HWD)	30.16 in (766 mm) x 6.46 in (164 mm) x 6.46 in (164 mm) (not including base support)		

PL Series

Performance loudspeakers for Q-SYS

Q-SYS PL Series performance loudspeakers pair a rich legacy of high-performance audio with the power and flexibility of Q-SYS to extend an integrated audio, video and control experience to your Front-of-House applications.

- **Deliver the Right System for your Customers:** PL Series loudspeakers provide an abundance of options to ensure the right loudspeaker solution anywhere in the venue that requires higher performance audio. All of the PL Series loudspeakers feature a weatherized enclosure (IP54 rating), making them a perfect choice for indoor or protected outdoor applications. Pairing them with the Q-SYS Platform, including Q-SYS processing and network amplifiers extends a number of unique benefits that deliver a more holistic system operation experience.
- **Full Control and monitoring for Entertainment Venues:** The Q-SYS Platform offers a full-featured control engine that lets you deploy the right level of intuitive user control and system visibility for each stakeholder in the venue. Additionally, Q-SYS Reflect Enterprise Manager lets you remotely monitor and manage the integrity of your system from anywhere
- **Seamless Q-SYS Experience:** PL Series add multiple form factors (line array, point source, and subwoofer) to a comprehensive Q-SYS portfolio that lets you take advantage of industry leading power amplification, flexible AV routing, intuitive control and robust processing capabilities to deliver a singular Q-SYS experience venue-wide.

Q-SYS PL-LA

Two-way passive installation line arrays

	PL-LA8	PL-LA12
Transducers		
LF	8 in (200 mm), 2 in (50 mm) voice coil, neodymium magnet	12 in (320 mm), 2.5 in (64 mm) voice coil, neodymium magnet
HF	Compression driver, 1.75 in (44 mm) voice coil	2x compression driver, 1.75 in (44 mm) voice coil
Enclosure type	Bass reflex, two-way passive/bi-amp line array loudspeaker	
Coverage angle (horizontal x vertical)	100° x 15°	90° x 15°
System bandwidth (-10 dB with EQ)	61 Hz-20 kHz (no subwoofer)	53 Hz-20 kHz (no subwoofer)
System sensitivity	101.2 dB @ 1 W/1 m	102.3 dB @ 1 W/1 m
Max SPL (continuous)[1]	126 dB @ 1 W/1 m	129 dB @ 1 W/1 m
System power rating	46 Vrms, continuous 250 W @ 8 Ω	49 Vrms, continuous 300 W @ 8 Ω
Recommended amplifiers	**Q-SYS CX-Q Series 4ch network amplifiers** - up to four (4) per channel on CX-Q 8K4 - up to two (2) per channel on CX-Q 4K4	
Rigging angles	0.5, 1.5, 3, 4.5, 6, 8, 10, 12	
Enclosure material	Impact-resistant ABS	
Enclosure color	Black (RAL 9011)	
Weatherization	IP54 Stainless screws UV and corrosion treated grille Aluminum rigging Hydrophobic stainless steel mesh behind grille Input cup (IP65) sealing with gland	
Product dimensions (HWD)	10.7 x 20.1 x 13.7 in (272 x 512 x 349 mm)	15.4 x 24.4 x 15.8 in (392 x 620 x 381 mm)
Product weight	30 lb (13.5 kg)	47 lbs (21.5 kg)

1. 1 m on-axis in free space; continuous IEC noise 6 dB crest factor into power rating

As part of our ongoing commitment to product development, specifications are subject to change without notice.

RoHS

Q-SYS PL-DC

Two-way passive point source loudspeakers with directivity control

	PL-DC24	PL-DC26
Transducers		
LF	2x 4 in (102 mm), 1.3 in (33 mm) voice coil, neodymium	2x 6 in (170 mm), 1.7 in (44 mm) voice coil, neodymium
HF	Compression driver, 1 in (25 mm) voice coil	Compression driver, 1.75 in (44 mm) voice coil
Enclosure type	Two-way, passive point source loudspaker in bass reflex enclosure	
Coverage angle (horizontal x vertical)	110° x 50°	Symmetrical: 120° x 50°, 90° x 50° Asymmetrical: 105° x 50° (reconfigurable half-horn assemblies included)
System sensitivity	97.3 dB @ 1 W/1 m	102.2 dB @ 1 W/1 m
Max SPL (continuous)[1]	114 dB	121 dB
Enclosure material	Exterior plywood	
Enclosure color	Black (RAL 9011)	
Weatherization	IP54 External plywood Stainless screws Treated grille vs. UV and corrosion Hydrophobic stainless steel mesh behind grille Polyurea paint Input cup (IP65) sealing with gland	
Recommended amplifiers	**Q-SYS CX-Q Series 4ch network amplifiers** - up to four (4) per channel on CX-Q 4K4 - up to two (2) per channel on CX-Q 2K4	**Q-SYS CX-Q Series 4ch network amplifiers** - up to four (4) per channel on CX-Q 8K4 - up to three (3) per channel on CX-Q 4K4 - up to two (2) per channel on CX-Q 2K4
Product dimensions (HWD)	5.4 x 13.6 x 7.2 in (136 x 346 x 182 mm)	7.9 x 20.4 x 10.9 in (201 x 520 x 275 mm)
Product weight	8.8 lb (4 kg)	25.3 lb (11.5 kg)

1. 1 m on-axis in free space; continuous IEC noise 6 dB crest factor into power rating

PL-DC8

PL-DC12

Transducers		
LF	8in (200 mm), 2 in (50 mm) voice coil, neodymium	12in (320 mm), 3 in (75 mm) voice coil, neodymium
HF	Compression driver, 1.75in (44 mm) voice coil	Compression driver, 3 in (75 mm) voice coil
Enclosure type	Two-way, passive point source loudspaker in bass reflex enclosure	
Coverage angle (horizontal x vertical)	Symmetrical: 120° x 50°, 90° x 50° Asymmetrical: 105° x 50° (reconfigurable half-horn assemblies included)	Symmetrical: 90° x 50°, 70° x 50°, 110° x 50° Asymmetrical: 100° x 50°, 90° x 50° , 80° x 50° (reconfigurable half-horn assemblies included)
System sensitivity	99.3 dB @ 1 W/1 m	102 dB @ 1 W/1 m
Max SPL (continuous)[1]	118 dB	124 dB
Enclosure material	Exterior plywood	
Enclosure color	Black (RAL 9011)	
Weatherization	IP54 External plywood Stainless screws Treated grille vs. UV and corrosion Hydrophobic stainless steel mesh behind grille Polyurea paint Input cup (IP65) sealing with gland	
Recommended amplifiers	**Q-SYS CX-Q Series** **4ch network amplifiers** - up to four (4) per channel on CX-Q 8K4 - up to three (3) per channel on CX-Q 4K4 - up to two (2) per channel on CX-Q 2K4	**Q-SYS CX-Q Series** **4ch network amplifiers** - up to four (4) per channel on CX-Q 8K4 - up to three (2) per channel on CX-Q 4K4
Product dimensions (HWD)	19.7 x 9.6 x 10.9 in (500 x 243 x 277 mm)	28 x 14.2 x 14.9 in (710 x 361 x 377 mm)
Product weight	26.9 lb (11.5 kg)	48 lb (21.8 kg)

1. 1 m on-axis in free space; continuous IEC noise 6 dB crest factor into power rating

RoHS

Q-SYS PL-SUB

Passive installation subwoofers

	PL-SUB10	PL-SUB12
Transducers	10 in (250 mm), 3 in (75 mm) voice coil	12 in (300 mm), 3 in (75 mm) voice coil
Enclosure type	Passive subwoofer in bass reflex enclosure	
Coverage angle (horizontal x vertical)	Omnidirectional	
System bandwidth (-10 dB with EQ)	43-100 Hz Sub Crossover = 80 43-110 Hz Sub Crossover = 100 43-140 Hz Sub Crossover = 125	40-100 Hz Sub Crossover = 80 40-110 Hz Sub Crossover = 100 40-140 Hz Sub Crossover = 125
System sensitivity	90 dB 1W/1m	93 dB 1W/1 m
Max SPL (continuous)[1]	132 dB	137 dB
Enclosure material	Exterior plywood	
Enclosure color	Black (RAL 9011)	
Weatherization	IP54 External plywood Stainless screws Treated grille vs. UV and corrosion Hydrophobic stainless steel mesh behind grille Polyurea paint Input cup (IP65) sealing with gland	
Recommended amplifiers	**Q-SYS CX-Q Series 4ch network amplifiers** - up to two (2) per channel on CX-Q 8K4 - up to one (1) per channel on the CX-Q 4K4	**Q-SYS CX-Q Series 4ch network amplifiers** - up to two (2) per channel on CX-Q 8K4
Product dimensions (HWD)	10.8 x 16.7 x 20 in (275 x 425 x 510 mm)	12.7 x 20.6 x 24 in (325 x 525 x 610 mm)
Product weight	41.8 lb (18.96 kg)	53.1 lb (24.1 kg)

1. 1 m on-axis in free space; continuous IEC noise 6 dB crest factor into power rating

PL-SUB15

PL-SUB18

Transducers	15 in (380 mm), 4 in (100 mm) voice coil	18 in (460 mm), 4 in (100 mm) voice coil
Enclosure type	Passive subwoofer in bass reflex enclosure	
Coverage angle (horizontal x vertical)	Omni-directional or cardioid radiation modes selectable in Q-SYS; cardioid setup requires minimum two (2) units	
System bandwidth (-10 dB with EQ)	38-100 Hz Sub Crossover = 80 38-110 Hz Sub Crossover = 100 38-140 Hz Sub Crossover = 125	34-100 Hz Sub Crossover = 80 34-110 Hz Sub Crossover = 100 34-140 Hz Sub Crossover = 125
System sensitivity	97.5 dB 1 W/1m	96 dB 1 W/1 m
Max SPL (continuous)[1]	139 dB	140 dB
Enclosure material	Exterior plywood	
Enclosure color	Black (RAL 9011)	
Weatherization	IP54 External plywood Stainless screws Treated grille vs. UV and corrosion Hydrophobic stainless steel mesh behind grille Polyurea paint Input cup (IP65) sealing with gland	
Recommended amplifiers	**Q-SYS CX-Q Series 4ch network amplifiers** - up to two (2) loudspeakers per channel on CX-Q 8K4	
Product dimensions (HWD)	14.7 x 23.5 x 27.1 in (375 x 598 x 690 mm)	20.9 x 24.4 x 28.7 (531 x 620 x 730 mm)
Product weight	80 lb (36.3 kg)	102.2 lb (46.3 kg)

1. 1 m on-axis in free space; continuous IEC noise 6 dB crest factor into power rating

ILA Series

Installation Line Array

WL2082-i with WL118-sw using EB2082-i extension bar and FB2082-i fly-bar.

Designed for installation applications while retaining the performance of high-end touring line array systems, the ILA Series takes this concept and builds on it by offering a complete and accessible solution consisting of processing, amplification, line array, subwoofer and suspension accessories. Built around the WL2082-i line array element, the system offers both flying (WL118-sw) or ground-stacked (GP118-sw) subwoofer options.

WL2082-i

- Dual 8-inch diameter low-frequency drivers.
- Dual 1.75-inch voice coil diameter, neodymium compression drivers with titanium domes.
- Patented* multiple aperture diffraction waveguide that provides extremely wide coverage (140º).
- Available in black or white and constructed from high impact polystyrene.
- May be used in outdoor applications where the system is not directly exposed to the elements.

	WL2082-i
Effective frequency range (-10 dB)	68 Hz – 22 kHz
Nominal coverage	140° H
System sensitivity[1]	132 dB
Power handling[2]	
HF	100 W
LF / MF / Bi-amp	400 W
Tri-amp	200 W + 200 W
Driver information	
LF	2 x 8 in transducers; 2 in voice coil; neodymium magnet
HF	2 x 1.75 in titanium diaphragm, neodymium magnet
Input connectors	2 x NL8 in parallel
Enclosure	HiPS
Net weight (each)	37 lb / 16.8 kg
Product dimensions (HWD)	11.8 x 27 x 13.4 in (300 x 686 x 340 mm)

1 Calculated at 1 m using power capacity and system sensitivity. 6 dB peak-to-average signal ratio assumed.
2 Continuous IEC specified test signal, 2 hours.

**Patent No. 7,177,437*

ILA Series

Installation Line Array

WL118-sw

WL118-sw Subwoofer

- 18-inch diameter low-frequency driver
- 850 W continuous power handling
- Performance down to 29 Hz
- Flyable on top or behind an ILA array
- Available in black or white and housed in a birch plywood enclosure

WL118-sw

Effective frequency range (-10 dB)	29 Hz – 800 Hz
Nominal coverage	N/A
System sensitivity[1]	98 dB
Power capacity[2]	850 W
Driver information LF	18 in transducer, 4 in voice coil, ceramic magnet
Input connectors	2 x NL8 in parallel and 2 x NL4 in parallel
Enclosure	Premium birch plywood
Net weight (each)	111 lb / 50.4 kg
Product dimensions (HWD)	22.1 X 27.6 X 30.3 in (562 X 702 X 771 mm)

1 Calculated at 1 m using power capacity and system sensitivity.
6 dB peak-to-average signal ratio assumed.
2 Continuous IEC specified test signal, 2 hours.

MIXERS


UTS (MONO SUMMING)
OUTPUTS (LINE LEVEL)
CH 1 | CH 2
CH 3 | CH 4
CH 5 | CH 6
CH 7 | CH 8
QSC
MP-M40
8 INPUT / 4 OUTPUT
MUSIC AND PAGING
ZONE MIXER
QSC
MP-M80
16 INPUT / 8 OUTPUT
MUSIC AND PAGING
ZONE MIXER

MP-M Series

Zone Mixers and control peripherals

The QSC MP-M music and paging mixers are mixer/processors offering unprecedented capabilities combined with ease of configuration and operation, contained in a reduced footprint (standard 1RU rackspace). Intended for retail and hospitality applications in which high-quality audio from various sources is routed to multiple zones, as well reinforcement applications for entertainment, presentations or conferences.

Hardware

- **Inputs/outputs:** The MP-M80 has eight mic/line inputs, eight line inputs and eight zone outputs while the MP-M40 has four mic/line inputs, four line inputs and four zone outputs. Each line input features dual phono-jacks (summed to mono) for easy connection to the sources typically found in business music installations

Processing/Mixing

- **Input processing:** Comprehensive processing includes high and low-pass filters, 4-band parametric EQ, a gate and a dynamics processor that may be configured as an automatic gain control (AGC) or a compressor
- **Output (zone) processing:** Mix any combination of input channels as sources for any output zone. Two input channels can be designated as priority sources that will 'duck' the selected input channel for paging/announcements or to allow a higher-priority source to take over. There are processing blocks for auto-loudness, equalization (1/3 octave GEQ), limiting and anti-feedback notch filters
- **Conference/live performance options:** An integral stereo mixer may be used for reinforcement of live performance or for conference/presentation mixing. Effects processing and a gain-sharing automatic microphone mixer are both available
- **Loudspeaker processing:** Intrinsic Correction™ voicings are available for QSC loudspeakers. Users can also create custom loudspeaker voicings

	MP-M40	MP-M80
Inputs		
Total	8	16
Mic/Line	4 (Euroblock)	8 (Euroblock)
RCA	4 (mono-summed RCA pairs)	8 (mono-summed RCA pairs)
USB	2 USB-A (Firmware & configuration uploads, USB audio playback, USB Wi-Fi)	
Outputs		
Total	6	10
Line	4 (Euroblock, balanced)	8 (Euroblock, balanced)
Cue (phones)	1 (3.5 mm, stereo)	1 (3.5 mm, stereo)
Music on hold	1 (Euroblock)	1 (Euroblock)
Input Processing		
EQ	4-band parametric EQ, variable 24 dB/octave HPF and LPF	
Dynamics	Gate, choice of Auto Gain Control (AGC) or Compressor	
Delay	100 msec	100 msec
Output Processing		
EQ	1/3 octave GEQ	
Anti-feedback	12-band variable notch filters	
Dynamics & effects	Limiter, ducker, loudness, multi-effects processor	
Delay	100 msec	100 msec
Loudspeaker tuning	Factory: Intrinsic Correction(TM) voicing for QSC loudspeakers User: 6-band Parametric EQ, HPF, LPF	
RTA	1 1/3 octave RTA	
Control		
Ethernet	1 x RJ45 for connection to Wi-Fi router (user supplied)	
MP-MFC ports	2 x RJ-45, supports up to 4 controllers, cable lengths up to 250 m	
Wireless control	MP Install and MP Manage apps for iOS and Android via Wi-Fi	
GPI	2 Inputs (Euroblock, black)	
Net weight	7.0 lb (3.2 kg)	7.0 lb (3.2 kg)
Product dimensions (HWD)	1.75 x 19 x 14 in (4.5 x 48.3 x 35.6 cm)	

Software

MP Install (for iOS/Android tables, Windows and Mac OS)

- **Configure and tune:** Used by the system designer and installer to configure and tune the system.
- **Configure anywhere:** Offline and online use is supported allowing the designer to pre-configure a system without connecting to MP-M hardware. Wireless control lets the installer walk the room while tuning.
- **Workflow wizards:** Includes a Setup Wizard and tools to assist the installer with system tuning and commissioning.
- **End user control options:** Provides as much or as little control as the installation requires for the available MP-MFC wall-mounted controllers or MP Manage wireless end user app.

MP Manage (for iOS/Android tablets and smartphones)

- **Wireless facility control:** Facility staff use MP manage for day-to-day operation of basic system functions.
- **Features-rich:** Zone level control and source selection, scene recall, scheduling, mixer control along with wireless store-and-forward paging from smartphones.
- **Assignable control access:** Create multiple user profiles to grant individuals access to only those functions they need.

Controllers

MP-MFC Controllers

- **Easy end user control:** Clearly labeled graphic display is configurable to control or restrict access to recalling scenes, as well as selecting source and adjust level for one of more zones.
- **Convenient colors and sizes:** MP-MFC controllers will fit in North American or European electrical boxes and come in black and white. The North American version is compatible with Decora® wall plates.
- **Controls where you need them:** Up to eight MP-MFC controllers may be connected to a single MP-M using standard CAT5 cabling. The MP-M has two ports, each of which can accommodate four daisy-chained controllers with a maximum total cable length of 250 m.

	MP-MFC
Controls	Three buttons (Increment/decrement, and select)
Connectors	2 x RJ45
Resolution	128 x 128 pixels, 27 x 26 mm viewing area
Maximum per MP-M	Up to 8 controllers per system (4 per leg) / up to 250 m cable length per leg
Available colors	White or black
Dimensions (HWD)	North American Versions: 4.5 x 2.75 x 1.4 in (11.4 x 7.0 x 3.5 cm) European Versions: 3.5 x 3.5 x 1.4 in (8.9 x 8.9 x 3.6 cm)

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