

# QSC SYSTEMS

## Pocket Reference Guide





Founded nearly five decades ago, QSC is a globally recognized leader in the design and manufacture of professional audio system solutions. With digital signal processing (DSP), power amplification, loudspeaker, and digital mixer engineering resources all located under one roof, we uniquely leverage these technologies to deliver products and systems that far outperform the sum of their parts - providing compelling solutions for professional installed, portable, production and cinema sound customers worldwide.

The following pages represent our latest Systems products and technologies. Designed to give you a brief overview, this Guide should be considered a supplement to the Products and Solutions pages online at [qsc.com](http://qsc.com). There, you will find a fully updated, comprehensive set of information, documentation, tools and images that work in tandem with this Guide. Additionally, our online education site, [qsctraining.com](http://qsctraining.com) is another great resource to learn more about QSC products and solutions.

Thank you for the opportunity to share our passion for audio with you. Enjoy the Guide.



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DIGITAL &  
NETWORK



## Q-SYS™

The World's Most Powerful Software Based DSP Solution for Audio, Video & Control



Q-Sys Cores

Q-SYS™, QSC's software based DSP platform, gives the systems integrator and end user a unified software design tool and feature set suitable for projects of any scale. With the bandwidth to handle even the most complex configurations, Q-SYS is ready for any job, from boardrooms and clubs to airports and stadiums.

Built from the ground up, the Q-SYS Core is at the heart of the Q-SYS system and runs QSC-developed DSP algorithms under a customized Linux operating system running on Intel® microprocessors and motherboards. This Intel hardware already meets industry-best reliability standards and is used in many of the world's most mission-critical projects on a powerful, open, IT-friendly foundation, the Q-SYS platform transcends the limitations in scope, performance, and usability that keep other network audio control systems from reaching their full potential.

- **Layer 3 networking:** Ensures Q-SYS can run on the backbone of existing IT infrastructure eliminating the need for a dedicated audio network.
- **Industry leading hardware design:** Future-proof investment in standards based software and computer technology running on Intel processors.
- **Suite of software based conferencing technology applications:** Including third-generation AEC, multiple-instance SIP Softphones, Gain Sharing and Gating Automixers.
- **Unified Software Platform:** Single training investment in one software design tool for small to large systems of all applications types.





Core 110f

## New Unified Core

The Q-SYS™ Core 110f is the latest addition to the Q-SYS Core family, providing a solution for small, single room projects up to the largest Enterprise scale deployments. The continuity of the Q-SYS software based DSP platform the Q-SYS Core 110f to leverage all the features that are available across the entire Q-SYS platform. This smaller Core is ideal for: acoustic echo canceling and sound reinforcement in small to large meeting or multipurpose rooms, sound reinforcement in performance venues such as house of worship and theater, background music systems, wide area paging in airports, convention centers and hospitals.

- **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.
- **True IT Software Integration:** The Q-SYS Software platform is a true IT integrative solution that is free of the fixed hardware limitations seen in competing products. It allows for greater functionality such as Layer 3 routing, LDAP contact server integration, SNMP monitoring, and more.
- **Suite of Software-Based Conferencing Technology applications:** Built and owned by QSC from the ground up allowing for continued refinement, without any additional hardware. The suite includes next generation acoustic echo cancellation (AEC), multiple-instance SIP softphones, gain sharing and gating automixers.
- **Unified Software Platform:** The integrator has a single training investment in one software design tool rather than needing to learn several platforms to scale from small to large systems.



Core 250i/500i

## Integrated Cores

Q-SYS™ Core 250i/500i Integrated Cores bring the power of the larger Q-SYS Cores to medium-sized applications. Integrated Cores can accommodate up to eight internal Q-SYS input and/or output cards for a total onboard channel capacity of 32 channels (or more if AES, Dante™, CobraNet™ cards are used) and up to 256 network channels. Channel count may be further expanded by the addition of Q-SYS I/O Frames and other peripheral devices.



Core 1100 / 3100

## Enterprise Cores

There are two Q-SYS™ Enterprise Core models, both tailored to meet the demanding needs of large scale installations. Core 1100 (256x256 network channels), and Core 3100 (512x512 network channels) are designed to work with numerous I/O Frames, page stations and CXD-Q network amplifiers, with each of these multiple peripherals located remotely throughout the venue.



### Q-SYS Training Level 1 (online)

**Learn anywhere, anytime:** Rather than take you away from your work, QSC gives you the flexibility to learn Q-SYS™ on your own time, from any internet-enabled computer or mobile device.

**Real-time, dynamic demonstrations:** No boring videos here. Our fast-paced demonstrations are highly visual and hosted by seasoned QSC educators, and presented in real-time.

**Multiple languages available:** Q-SYS Training is available in English, Spanish and Chinese with more languages planned for future release.

### Q-SYS Training Level 2 (classroom)

**Experienced Trainers:** One-on-one instruction from advanced application engineers and trainers who specialize in a wide variety on installations.

**Hands-on Experience:** Each student works on a full Q-SYS™ workstation with the latest Q-SYS hardware and software.

**Advanced Application-based Curriculum:** Topics include Public Address, Conferencing Suite (AEC, Softphone, proper gain staging, Automixers), Networking Troubleshooting, Introduction to Third Party Control, Core-to-Core Streaming/Paging, GPIO integration, Advanced User Control Interface and more.



Q-SYS Training has been approved by Infocomm for RU credits.

**Level 1:** 4 RU **Level 2:** 8 RU

Visit [www.qsctraining.com](http://www.qsctraining.com) to begin your Q-SYS Training.

## Q-SYS™

### CXD-Q Series Network Amplifiers



CXD4.3Q

Designed specifically for use with the Q-SYS™ platform, CXD-Q amplifiers marry the new amplifier technology found in the CXD platform with the powerful Q-SYS network processing and control system to create the perfect solution for installed applications. The CXD-Q line includes three models (CXD4.2Q, CXD4.3Q & CXD4.5Q) capable of delivering robust, high-fidelity power to drive a wide range of loudspeaker configurations including 70V and 100V systems. By simply connecting the amplifiers via standard Layer 3 Ethernet, the Q-SYS Core can route audio to/from the amps, as well as provide total control and monitoring of all amplifier functions. 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.

- Capable of providing up to 5,000W continuous and 8,000W peak with 70V / 100V direct drive on the CXD4.3Q and CXD4.5Q.
- Flexible Amplifier Summing Technology™ (FAST) permits total amplifier power to be distributed across one, two, three or all four channels.
- With redundant ethernet jacks, the CXD-Q amps seamlessly integrate with Q-SYS providing audio streaming directly to and from the amplifiers.

|        | CXD4.2Q             |            |  | CXD4.3Q           |            | CXD4.5Q           |            |
|--------|---------------------|------------|--|-------------------|------------|-------------------|------------|
| 4 Ch   | Dynamic             | Continuous |  | Dynamic           | Continuous | Dynamic           | Continuous |
| 8Ω     | 500 W               | 400 W      |  | 900 W             | 625 W      | 1200 W            | 1150 W     |
| 4Ω     | 700 W               | 400 W      |  | 1400 W            | 625 W      | 2000 W            | 1250 W     |
| 2Ω     | 625 W               | 350 W      |  | 1200 W            | 625 W      | 1600 W            | 625 W      |
| 2 Ch   | Dynamic             | Continuous |  | Dynamic           | Continuous | Dynamic           | Continuous |
| 8Ω     | 1200 W              | 800 W      |  | 2400 W            | 1250 W     | 4000 W            | 2250 W     |
| 4Ω     | 1500 W              | 800 W      |  | 2000 W            | 1250 W     | 2400 W            | 2250 W     |
| 2Ω     | 1500 W              | 650 W      |  | 2500 W            | 1250 W     | 4000 W            | 2100 W     |
| 1 Ch   | Dynamic             | Continuous |  | Dynamic           | Continuous | Dynamic           | Continuous |
| 8Ω     | 1600 W              | 1500 W     |  | 3500 W            | 2500 W     | 4500 W            | 4200 W     |
| 4Ω     | 2500 W              | 1600 W     |  | 5000 W            | 2500 W     | 7500 W            | 4200 W     |
| 2Ω     | 1700 W              | 1600 W     |  | 3500 W            | 2500 W     | 4500 W            | 4250 W     |
| 1Ω     | 2500 W              | 1600 W     |  | 5000 W            | 2500 W     | 7500 W            | 3700 W     |
| Weight | 18.5 lb / (8.39 kg) |            |  | 21 lb / (9.53 kg) |            | 22 lb / (9.98 kg) |            |

*Burst Power - 20 ms 1 kHz sine burst, all channels driven*

*Continuous Power - EIA 1 kHz 1% THD, all channels driven*



- Q-SYS Designer Software (v.4.0 and higher) includes the CXD-Q amplifiers in the inventory options and provides complete system wide design, as well as control and monitoring capability.
- GPIO connectors on Euroblock enable additional functionality utilizing the intuitive and powerful Q-SYS control engine complete with logic functions and LUA scripting.
- Euroblock input connectors and touch-proof Euroblock loudspeaker output connectors.
- PowerLight™ universal switchmode power supply with Power Factor Correction (PCF) for highest efficiency, improved audio performance, and low weight.
- Built-in energy saving modes ensure that the amplifier will draw the minimum amount of AC power while still providing outstanding audio quality.

## Q-SYS™

### Control Peripherals

Designed for true one-touch control of audio functions, Q-SYS™ also manages a wide variety of equipment utilizing built-in GPIO and TCP/IP instruction sets. With Q-SYS, nearly every audio processing parameter can be a command source or a command destination, for third-party control.

- **User Control Interface tool:** Create custom control panels with Q-SYS Designer Software (UCI) tool and operated from any computer on the network, Wi-Fi connected iPad or iPhone. IP-based external control protocol ensures connecting with third-party controllers.
- UCI Viewer for PC workstations provides customized user control interfaces; Q-SYS Designer Software administrator utility allows creates password and user access rights for each UCI.

### User Control Hardware options

Q-SYS™ allows UCI screens to be hosted on QSC touch screen controllers, PC workstations, and iOS devices.

### QSC Touch Screen Controllers

- **TSC-3:** This 3.5 inch (320 x 240 resolution) features Power over Ethernet (PoE) and is designed for flush mount installation in a standard U.S. 2-gang wall box, or surface mounting with the included kit.



iOS App Controller



TSC-3 Touchscreen



## New TSC-7w Wall-mount Touch Screen Controller

- **Consolidate Dialing and Control:** In addition to the dialing functionality for your conferences, this 7" screen (800px x 480px) can be used to control a myriad of third-party devices prevalent in boardrooms and meeting rooms via the Core (no additional control processor box required).
- **Capacitive Touch Technology:** Eliminates physical knobs and buttons increasing product reliability.
- **Single drop PoE cabling:** Ethernet connection for simplified wire terminations without the need for additional power wiring.
- **Redundancy Options:** TSC-7w provides two network ports for connection back to the Q-SYS™ Core.



## New TSC-7t Tabletop Touch Screen Controller

- **Consolidate Dialing and Control:** In addition to the dialing functionality for your conferences, this 7" screen (800px x 480px) can be used to control a myriad of third-party devices prevalent in boardrooms and meeting rooms via the Core (no additional control processor box required).
- **BYOD Options:** Allows meeting participants to easily run UC or web conferencing applications on their own devices and interface 2-way audio from that device to the Q-SYS™ system, either wirelessly using TSC-7t's Bluetooth capability, or wired using its Micro USB AB On-The-Go (OTG 2.0) connection.
- **Capacitive Touch Technology:** Eliminates physical knobs and buttons increasing product reliability.
- **Single drop PoE cabling:** Ethernet connection for simplified wire terminations without the need for additional power wiring.
- **Table Mounting System:** Carefully designed weighted base with rubber pad prevents the touch screen from sliding, while the included threaded brass mounting post offers permanent through-table mounting with clean cable management
- **Redundancy Options:** TSC-7t provides two network ports for connection back to the Q-SYS Core.





# Q-SYS™

## I/O Peripherals

### I/O Frame 8s



The Q-SYS™ I/O Frame and the new I/O Frame 8s provide the remote points of connection that interface Q-SYS with other components of the audio system, including microphones, mixers and power amplifiers. I/O Frame offers four available card slots while the I/O Frame 8s offers eight available card slots.



Mic/Line Analog Input Card



Analog Line Output Card



AES-3 Digital Input/Output Card



DataPort Output Card



CobraNet™ Digital Input/Output Card



Dante™ Network Audio Bridge Card



AVB Audio Bridge Card

## I/O Cards

The following cards are available for Integrated & Enterprise Cores, as well as both I/O Frames:

- **Mic/Line Analog Input Card (CIML4/CIML4-HP):** Four channels of switchable mic/line-level analog audio input with 48 V phantom power. This card provides inputs for microphones, mixers and CD/DVD players. 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 non-DataPort amplifiers, recording devices and teleconference systems.

- 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 such as mixing consoles and recording devices.
- DataPort Output Card (CODP4): Four audio output channels (2 DataPorts) for connection to DataPort equipped QSC amplifiers. The DataPort interface allows audio, status monitoring, and control between Q-SYS and QSC DataPort power amplifiers.
- CobraNet™ Digital Input/Output Card (CCN32): Input/output interfacing with legacy CobraNet-based audio networks. The CobraNet card allows for several operating modes, 4x4, 8x8, 16x16, and 32x32. In an I/O Frame the CobraNet card can be used in 4x4, 8x8, and 16x16 mode, whereas inserting it into a Core allows all these as well as the additional 32x32 mode.
- Dante™ Audio Bridge Card (CDN64): Provides a link for up to 32x32 channels at 48 kHz from any Dante™ edge network, directly into a QSC Q-SYS Core for advanced processing and redistribution over larger LAN and WAN IT infrastructures.
- AVB Audio Video Bridge Card (CAN32): Provides a digital bridge between any 100mb AVB 1722.1 compliant edge network and the Q-Sys Eco system. The CAN32 will support 32 total channels at 48 kHz in three available operating modes: 0/32, 32/0 or 16x16.



## I/O-22

The Q-SYS™ I/O-22, is a compact, standalone unit designed for use when audio sources and destinations are physically spread out, such as the individual seats in a conferencing system or individual rooms in a multi-room venue. 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.

## Q-SYS™

### Public Address Peripherals

Q-SYS™ offers a suite of tools that provide sophisticated paging and messaging functionality to support any-sized paging application including convention centers, transportation terminals, theme parks and more. Q-SYS offers a number of paging-specific advantages that sets it apart from alternative approaches:

- **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.
- **Scriptable control:** Allowing paging functions to be added or customized as needed.
- **PA Router:** Supports live and delayed paging, scheduled messaging, announcement recording, live page routing, triggered playback, and event scheduling.

PS-X Paging Accessory



## Q-Sys Networked Page Stations

Available with either gooseneck or handheld microphone (push to talk), the Q-SYS Networked Page Station is a dual-port network device that is fully configurable from Q-SYS Designer. 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).

All Page stations feature:

- 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.

## Virtual Page Station

Used in conjunction with a local control interface (TSC-3 or UCI Viewer), an I/O-22 plus a microphone of choice emulates the functionality of the models listed above.



# AMPLIFIERS



## SPA Series Amplifier



SPA2-60 and SPA4-60

The SPA Series are half rack 1U, convection cooled power amplifiers, delivering two or four channels of 60 watts per channel into 4 $\Omega$  and 8 $\Omega$ . These amps can also be bridged to supply 250W per channel pairs into 70V or 100V making them extremely flexible for Low-Z or High-Z applications. 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<sup>®</sup> qualified with quiet auto-ramp standby functionality. The SPA2-60 and SPA4-60 are housed in an unobtrusive 1/2" RU chassis with unique mounting hardware enabling rack, table and wall mounting capabilities.

- **200 watts RMS output power**
- **ENERGY STAR<sup>®</sup> 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 SPA2-60 and SPA4-60 provide up to 200 watts into low impedance, 70V or 100V providing outstanding flexibility.
- **Auto-Ramp provides quiet startup and power-down:** The ENERGY STAR<sup>®</sup> 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 1U, half rack width enclosure:** The SPA2-60 and SPA4-60 can be mounted in 1/2 RU reducing rack space requirements. In addition their clever joining "brackets" enable easy under-table and wall-mounting.





|                        | SPA2-60 | SPA4-60 |
|------------------------|---------|---------|
| <b>Stereo Mode</b>     |         |         |
| 8Ω                     | 60 W    | 60 W    |
| 4Ω                     | 60 W    | 60 W    |
| <b>Bridged Outputs</b> |         |         |
| 8Ω & 4Ω                | 200 W   | 200 W   |
| 70V                    | 250 W   | 250 W   |
| 100V                   | 250 W   | 250 W   |

Included Mounting Hardware



## CXD Series Processing Amplifiers



Representing a revolutionary advancement in amplifier design, CXD amplifiers feature powerful onboard DSP and deliver robust, high fidelity power housed in a 2RU chassis. Designed with integrators in mind, the CXD line includes three models (CXD4.2, CXD4.3 & CXD4.5) capable of driving a wide range of loudspeaker configurations including 70V and 100V 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 5,000W continuous and 8,000W peak with 70V/100V 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.

- Factory presets can be used as is, or modified and stored as one of 50 user presets.
- Four Euroblock inputs and Four Euroblock touch-proof speaker outputs.
- PowerLight universal switchmode power supply with Power Factor Correction for highest efficiency, improved audio performance, and low weight.
- Rear USB port for connecting to Amplifier Navigator software 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 Speaker Profiles along with library management.

|        | CXD4.2              |            | CXD4.3            |            | CXD4.5            |            |
|--------|---------------------|------------|-------------------|------------|-------------------|------------|
| 4 Ch   | Dynamic             | Continuous | Dynamic           | Continuous | Dynamic           | Continuous |
| 8Ω     | 500 W               | 400 W      | 900 W             | 625 W      | 1200 W            | 1150 W     |
| 4Ω     | 700 W               | 400 W      | 1400 W            | 625 W      | 2000 W            | 1250 W     |
| 2Ω     | 625 W               | 350 W      | 1200 W            | 625 W      | 1600 W            | 625 W      |
| 2 Ch   | Dynamic             | Continuous | Dynamic           | Continuous | Dynamic           | Continuous |
| 8Ω     | 1200 W              | 800 W      | 2400 W            | 1250 W     | 4000 W            | 2250 W     |
| 4Ω     | 1500 W              | 800 W      | 2000 W            | 1250 W     | 2400 W            | 2250 W     |
| 2Ω     | 1500 W              | 650 W      | 2500 W            | 1250 W     | 4000 W            | 2100 W     |
| 1 Ch   | Dynamic             | Continuous | Dynamic           | Continuous | Dynamic           | Continuous |
| 8Ω     | 1600 W              | 1500 W     | 3500 W            | 2500 W     | 4500 W            | 4200 W     |
| 4Ω     | 2500 W              | 1600 W     | 5000 W            | 2500 W     | 7500 W            | 4200 W     |
| 2Ω     | 1700 W              | 1600 W     | 3500 W            | 2500 W     | 4500 W            | 4250 W     |
| 1Ω     | 2500 W              | 1600 W     | 5000 W            | 2500 W     | 7500 W            | 3700 W     |
| Weight | 18.5 lb / (8.39 kg) |            | 21 lb / (9.53 kg) |            | 22 lb / (9.98 kg) |            |

*Burst Power - 20 ms 1 kHz sine burst, all channels driven*

*Continuous Power - EIA 1 kHz 1% THD, all channels driven*



## CX Series Amplifiers



CX Series is a line of two, four and eight channel amplifiers designed for installation applications requiring premium sound quality and high output. Recognized by sound contractors worldwide for their reliability, CX 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. CX Series Amplifiers also feature advanced amplifier control and monitoring for Q-SYS™ network audio platform and our legacy QSCControl.net platform.

- Active Inrush Limiting gently brings amplifiers on-line 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™ and QSCControl.net™.
- Selectable clip limiters and infra-sonic filters protect loudspeakers from damage due to distortion and overexcursion.
- DataPort or Block Connector Inputs and touch-proof barrier-strip outputs (2 ch models also include XLR inputs and 8 ch models feature Block Connector Outputs).
- Sleep (Standby) Mode for energy saving efficiency.
- Transformer-less 70 /100 volt models available.

IT-42 is an output isolation transformer accessory for the QSC CX302 amplifier allowing it to drive two 25, 70 and 100 volt distributed lines in stereo or parallel or a single 140 or 200 volt line in bridged mono. Mounts to the rear of the CX302 amplifier requiring no additional rack space.



CX 2-channel Models



CX 4-channel Models



CX 8-channel Models

**Watts per channel**

| Model   | 70 V* | 8Ω  | 4Ω   | 2Ω*  |
|---------|-------|-----|------|------|
| 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, 1% THD

†1 kHz, 0.1% THD ††20 Hz – 20 kHz, 0.2% THD §20 Hz – 20 kHz, 0.1% THDs



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

## PowerLight™ 3 Series Amplifiers



PowerLight 3 Series are our “Ultimate Analog” amplifiers, designed for the most demanding concert and live-sound reinforcement applications. All three models (PL380, PL340 and the PL325) feature the PowerLight™ power supply technology reducing weight, eliminating AC mains hum and improving audio quality. With zero signal latency with select QSC processors for seamless integration and flawless loudspeaker alignment, the PowerLight 3 Series architecture provides users the choice of comprehensive, networked remote control, monitoring and DSP or the cost savings of a simple, straightforward analog input configuration.

- Class D (PL380) and Class H (PL340 & PL325) topology provide efficient high power performance.
- Three-position Input Sensitivity switch simplifies integration of PowerLight 3 amplifiers into existing amp racks and power systems.
- User defeatable clip limiters and selectable low-frequency filters (30 Hz, 50 Hz, Bypass).
- DataPort connection supports external amplifier control and/or the DSP-4 module.
- Zero signal latency between the DataPort and compatible devices such as the Q-SYST™ network platform, QSCControl.net™ BASIS™ units, or DSP-4 rear panel module.
- XLR and Block Input connectors and Binding post or Neutrik speakON® Output connectors.
- Comprehensive internal protection protects amplifiers and loudspeakers against over-current, over-temperature and clipping – without compromising program signal.



PL380



PL325 and PL340

#### Watts per channel

| Model | 8Ω   | 4Ω   | 2Ω   |
|-------|------|------|------|
| PL325 | 500  | 850  | 1250 |
| PL340 | 800  | 1250 | 2000 |
| PL380 | 1500 | 2500 | 4000 |

EIA 1 kHz, 1% THD

\*Burst mode testing required due to AC service current limitations



## CMXa Series Amplifiers



CMXa Series amplifiers represent an economical and rugged power amplifier solution for installed sound applications. There are four CMXa models to choose from (CMX 300Va, CMX 500Va, CMX 800Va, and CMX 2000Va). The CMX amplifiers provide flexible input and output connectors making them ideal for use in projects such as performance halls, houses of worship, sport clubs, gymnasiums, dance venues, pubs, and FGM/BGM systems. CMXa Series provides unmatched performance and user options at an affordable price point.

- Flexible output loading options enable low impedance loads comfortably down to  $2\Omega$ , and in some configurations will effortlessly drive 70V /100V lines.
- Recessed front panel gain controls with 1 dB detents for fast and accurate level settings.
- Security plate cover for gain controls to provide tamper-proof protection.
- Recessed rear DIP switches for easy selection between stereo, parallel, or bridged mode operation, and the additional choice of enabling/disabling low frequency filter protection.
- Balanced XLR, TRS or Barrier Strip parallel inputs and NL4 or detachable Block output connectors.





CMXa 2RU Models



CMX 2000Va (3RU Models)

### Watts per channel

| Model      | Stereo |      | Bridged |      | Stereo |      | Bridged |      |
|------------|--------|------|---------|------|--------|------|---------|------|
|            | 70V    | 100V | 70V     | 100V | 8Ω     | 4Ω   | 2Ω*     | 4Ω*  |
| CMX 300Va  | -      | -    | 600     | -    | 200    | 300  | 430     | 830  |
| CMX 500Va  | -      | -    | 1200    | 600  | 300    | 500  | 700     | 1400 |
| CMX 800Va  | 400    | -    | 2000    | 2300 | 500    | 800  | 1200    | 2400 |
| CMX 2000Va | 2500   | 1000 | -       | 3600 | 1100   | 2000 | 2500    | 5000 |

1 kHz, 0.1% THD \*1 kHz, 1% THD



## GXD Series Processing Amplifiers



GXD Series amplifiers are ideal for installations with demanding DSP requirements and flexibility at a cost effective price. This high performance line consists of two amplifiers, the GXD4 and GXD8, each providing enormous Class-D power in a lightweight and efficient package. The universal switchmode power supply helps reduce the weight, increase efficiency, and ensures rock-solid continued operation even with poor power conditions. The addition of on-board DSP processing with an easy-to-use interface offers powerful tools like Crossover and EQ filters, Delay, and Power Limiting that allow the user to configure the amplifier and maximize the performance of their loudspeakers. GXD Series amplifiers are engineered to meet any demanding application and provide excellent power and legendary QSC reliability, in an efficient, lightweight, and flexible package; bottom line, the GXD amplifiers provide outstanding value!

- Total power of 4500W and 1600W means real power for your application.
- Extensive and powerful loudspeaker processing to maximize loudspeaker performance including Crossover and Parametric EQ filters, Delay, and Power Limiting.
- Power levels matched to the most popular loudspeakers and optimized for the maximum real-world headroom into 4 $\Omega$  and 8 $\Omega$  loudspeakers.
- Class-D output power with a universal switchmode power supply for high performance and efficiency, as well as light weight.
- Parallel XLR and 1/4" TRS input connectors for compatibility with any source while providing convenient loop-thru capability.



GXD4 Rear



GXD8 Rear

#### Watts per channel

| Model | 8Ω  | 4Ω   | Max Total Peak Power |
|-------|-----|------|----------------------|
| GXD4  | 400 | 600  | 1600                 |
| GXD8  | 800 | 1200 | 4500                 |

*Both channels driven. 1kHz, onset of clipping*



- Professional NL4 and Binding Post output connectors provide mono and bi-amp speaker connectivity.
- Front panel LEDs monitor, Power, Signal and Clipping.
- Large LCD display with dual rotary encoders for fast and simple set-up and on-screen monitoring of the output levels.

## ISA Series



ISA 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-ohm loads and three "Ti" versions (ISA 300Ti, ISA 500Ti, ISA 800Ti) featuring isolated transformers for 25, 70 and 100 volt 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 2400W total output power.
- 3RU chassis with rear-mounted gain controls featuring 2 dB detents.
- Independent, defeatable clip limiters reduce distortion and protect speakers.
- Selectable high-pass filters protect against transformer saturation and driver overexcursion.
- Includes extensive DC, infrasonic, thermal overload, and short circuit protection.
- XLR and 3-pin Block input connectors and touch-proof barrier-strip outputs.
- DataPort V2 connector not compatible with Q-SYS, BASIS or CM16a.



ISA 500Ti

### Watts per channel

| Model    | 70V* / 100V | 8Ω** | 4Ω** | 2Ω†  |
|----------|-------------|------|------|------|
| 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



## Amplifier Accessories

XC-3 2-way Crossover | SF-3 Subwoofer Filter |  
LF-3 Low-Frequency Filter

The XC-3 is an active, 2-way crossover module that mounts to the rear panel DataPort of select 2-channel QSC amps (DCA, PL2, PL3, CX, ISA). A 3-way crossover can be implemented using the XC-3's low-frequency high-pass filter with the LF-3.



- 4th order Linkwitz-Riley filters (24 dB/octave), low frequencies routed to channel 1 and highs to channel 2.
- All-pass filter delay for time alignment of low- and high-frequency drivers
- Trim control (0-20 dB attenuation) to balance the frequency bands.
- High-frequency channel offers boosts up to 10 dB for equalizing constant-directivity horns.



The SF-3 provides subwoofer signal processing without the need for a conventional crossover. To conserve cost and rack space, the unit mounts to the rear panel DataPort of select 2-channel QSC amps (DCA, PL2, PL3, CX, ISA).

- 4th order Linkwitz-Riley low-pass filter may be set to 80, 150 or 250 Hz.
- Subsonic filter offers roll-off frequencies in the range 20-50 Hz to prevent driver over-excursion.
- Trim control (0-20 dB of attenuation) allows balancing the various frequency bands.

The LF-3 low-frequency filter, when used with the XC-3 2-way crossover, creates a 3-way active crossover system. Mounting to the rear panel of select, 2-channel QSC amps (DCA, PL2, PL3, CX, ISA), the LF-3 is comprised of two discrete channels with 4th order Linkwitz-Riley low-pass filters (24 dB/octave slope).



- Delay on each channel for loudspeaker time-alignment
- Trim control (0-20 dB of attenuation) to match levels.
- One amp-mounted LF-3 can support up to three amplifiers (including in stereo) with XC-3 installed accessories

LOUDSPEAKERS





## AcousticCoverage™ Series Loudspeakers

Surface-mount



AcousticCoverage™ 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 AcousticCoverage speakers include wide area paging systems, background music, office buildings, 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 70/100V transformers with 8 ohm bypass.
- 4-pole Euroblock connector eases system wiring.
- Advanced voicing filter sets using QSC's Intrinsic Correction™ available through either the Q-SYS™ network platform or CXD series amplifiers.
- Spring-loaded and rotatable logo on grill for installation convenience in either horizontal or vertical deployments.
- White (RAL 9010) with UV inhibitors to match complimenting QSC loudspeaker series.
- Complete EASE, CAD & BIM information available on [qsc.com](http://qsc.com).

**AC-S4T****AC-S6T**

|                                     |  |  |
|-------------------------------------|--|--|
| Frequency Range (-10 dB)            | 70 Hz – 20 kHz                                     | 60 Hz – 20 kHz                                     |
| Power Capacity <sup>1</sup>         | 16 W   | 30 W   |
| Broad-Band Sensitivity <sup>2</sup> | 85 dB SPL  | 86 dB SPL  |
| Coverage Angle                      | 130° (500 Hz - 5 kHz)                              | 130° (500 Hz - 5 kHz)                              |
| Output <sup>3</sup> (Peak SPL @ 1M) | 103 dB   | 107 dB   |
| Driver Information                  | 4" Polypropylene woofer with 1" voice-coil         | 6" Polypropylene woofer with 1" voice-coil         |
| Rated Impedance                     | 8 ohm  | 8 ohm  |
| 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 lbs / 2.4 kg                                   | 8.3 lbs / 3.8 kg                                   |

<sup>1</sup> IEC60268-1 noise signal for 2 Hrs.

<sup>2</sup> On-Axis, free-field sensitivity, 2.83V, 1 m

<sup>3</sup> Calculated from rated noise voltage and sensitivity.



## AcousticCoverage™ Series Loudspeakers

Ceiling-mount



AC-C4T

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- White (RAL 9010) with UV inhibitors to match complimenting QSC loudspeaker series.
- Complete EASE, CAD & BIM information available online.



AC-C6T

|                                     | <b>AC-C4T</b>                                      | <b>AC-C6T</b>  |
|-------------------------------------|--|--|
| Frequency Range (-10 dB)            | 70 Hz – 16 kHz                                     | 65 Hz – 20 kHz   |
| Power Capacity <sup>1</sup>         | 16 W   | 30 W   |
| Broad-Band Sensitivity <sup>2</sup> | 89 dB  | 89 dB  |
| Coverage Angle                      | 140° (500 Hz - 5 kHz)                              | 110° (500 Hz - 5 kHz)  |
| Output <sup>3</sup> (Peak SPL @ 1M) | 107 dB   | 110 dB   |
| Driver Information                  | 4" Polypropylene cone with butyl rubber surround   | LF: 6" Polypropylene cone with butyl rubber surround<br><br>HF: 0.86" silk dome tweeter, coaxially mounted |
| Rated Impedance                     | 8 ohm  | 8 ohm  |
| Input Connectors                    | Euroblock connector with parallel output terminals | Euroblock connector with parallel output terminals   |
| Baffle Material                     | Painted ABS polymer                                | Painted ABS polymer  |
| Net Weight                          | 4.9 lbs / 2.22 kg                                  | 7.6 lbs / 3.5 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 II Loudspeakers

Surface-mount



AcousticDesign™ Series II surface-mount loudspeakers are professional, 70/100V, two-way, full-range systems ideal for a wide variety of foreground and background sound reinforcement applications. Innovations found on new AD-S loudspeakers enable designers and integrators to quickly and easily specify and install a system. AD-S loudspeakers are also a perfect solution to serve ancillary loudspeaker needs as part of a larger installed sound system.

- DMT™ (Directivity Matched Transition) ensures smooth, uniform frequency response over the coverage area.
- Patent pending X-Mount™ enables the loudspeaker to be easily installed and deployed at a variety of angles without slipping over time.
- Optional yoke mount and M10 Kit-C eyebolt kit offers additional loudspeaker deployment options.
- Block connectors allow pre-wiring of the system.
- Low saturation 70/100V transformers with 8 ohm bypass (excluding both 12" models).
- Lightweight ABS enclosures offer long-term durability
- Sealed input panel cover and powder coated aluminum grilles for added weather resistance.
- Meets IEC60529 IP-54 for dust and splash resistance.
- Available in black (RAL 9011) or white (RAL 9010).  
(AD-S112sw available in black only)
- Complete EASE, CAD & BIM information available online.
- Sealed rear cover provides weather protection for cable terminations. Screw-down glandnut and trim gasket ensure moisture-tight seal.



Input terminal cover



Patent-pending X-Mount™ mounting system

## AcousticDesign™ Series II

Surface-mount



**AD-S4T**



**AD-S6T**

|  |  |  |
|--|--|--|
| Effective frequency range <sup>1</sup>   | 70 kHz – 20 kHz                                    | 60 kHz – 20 kHz                        |
| Rated noise power / voltage <sup>2</sup> | 50W / 20V (rms)                                    | 150W / 35V (rms)                       |
| Broad-band sensitivity <sup>3</sup>      | 87 dB SPL  | 89 dB SPL                              |
| Coverage Angle (-6 dB)                   | 120° conical                                       | 105° conical                           |
| Output <sup>4</sup> (Peak SPL @ 1M)      | 110 dB   | 116 dB                                 |
| Driver Information                       |  |  |
| LF                                       | 4" weather treated paper cone woofer               | 6.5" weather treated paper cone woofer |
| HF                                       | 0.75" silk dome tweeter / 0.75" voice-coil         | 1" silk dome tweeter / 1" voice-coil   |
| Rated Impedance                          | 8 ohm  | 8 ohm                                  |
| Input Connectors                         | Euroblock connector with parallel output terminals |  |
| Enclosure                                | Painted ABS polymer                                | Painted ABS polymer                    |
| Ingress protection                       | IP-54  | IP-54                                  |
| Net Weight                               | 6.5 lbs / 2.95 kg                                  | 13.6 lb / 6.2 kg                       |

<sup>1</sup> Free-field, -10 dB from on-axis sensitivity

<sup>2</sup> IEC60268-1 noise signal for 2 Hrs

<sup>3</sup> On-Axis, free-field sensitivity, 2.83V, 1 m

<sup>4</sup> Calculated from rated noise voltage and sensitivity





**AD-S8T****AD-S10T**

|  |  |  |
|--|--|--|
| Effective frequency range <sup>1</sup>   | 55 kHz – 20 kHz                                    | 50 Hz – 19 kHz   |
| Rated noise power / voltage <sup>2</sup> | 200W / 40V (rms)                                   | 250W / 45V (rms)   |
| Broad-band sensitivity <sup>3</sup>      | 90 dB SPL  | 92 dB SPL  |
| Coverage Angle (-6 dB)                   | 105° conical                                       | 90° conical  |
| Output <sup>4</sup> (Peak SPL @ 1M)      | 121 dB   | 122 dB   |
| Driver Information                       |  |  |
| LF                                       | 8" weather treated paper cone woofer               | 10" weather treated paper cone woofer, 2.5" / 64 mm voice-coil |
| HF                                       | 1" exit / 1.4" voice-coil compression driver       | 1" exit / 1.4" voice-coil compression driver                   |
| Rated Impedance                          | 8 ohm  | 8 ohm  |
| 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 lbs / 11 kg                                   | 31 lbs / 15 kg   |

<sup>1</sup> Free-field, -10 dB from on-axis sensitivity

<sup>2</sup> IEC60268-1 noise signal for 2 Hrs

<sup>3</sup> On-Axis, free-field sensitivity, 2.83V, 1 m

<sup>4</sup> Calculated from rated noise voltage and sensitivity



## AcousticDesign™ Series II Loudspeakers

Surface-mount



### AD-S12

### AD-S112sw

|  |   |   |
|--|---|---|
| Effective frequency range <sup>1</sup>   | 52 Hz – 20 kHz  | 30 Hz - 135 Hz  |
| Rated noise power / voltage <sup>2</sup> | 300W / 50V (rms)  | 300W / 50V (rms)  |
| Broad-band sensitivity <sup>3</sup>      | 95 dB SPL   | 90 dB SPL   |
| Coverage Angle (-6 dB)                   | 75° conical   | N/A   |
| Output <sup>4</sup> (Peak SPL @ 1M)      | 126 dB  | 121 dB  |
| Driver Information                       |   |   |
| LF                                       | 12" weather treated paper cone woofer, 2.5" / 64mm voice-coil | 12" weather treated paper cone woofer, 2.5" / 64mm voice coil |
| HF                                       | 1" exit / 1.4" voice-coil compression driver                  |   |
| Rated Impedance                          | 8 ohm   | 8Ω  |
| Input Connectors                         | Euroblock connector with parallel output terminals            |   |
| Enclosure                                | Painted ABS polymer   |   |
| Ingress protection                       | IP-54   |   |
| Net Weight                               | 35 lbs / 16 kg  | 29 lb / 13.2 kg   |

<sup>1</sup> Free-field, -10 dB from on-axis sensitivity

<sup>2</sup> IEC60268-1 noise signal for 2 Hrs

<sup>3</sup> On-Axis, free-field sensitivity, 2.83V, 1 m

<sup>4</sup> Calculated from rated noise voltage and sensitivity





AD-S10 with patent-pending X-Mount™ mounting system

## AcousticDesign™ Series Loudspeakers

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 while the 3" polypropylene woofer with synthetic rubber surround ensures reliable operation in high humidity. The aluminum grille backed with acoustically transparent foam protects the components from the elements.

- 3" polypropylene cone woofer.
- 0.75" titanium dome tweeter.
- 65Hz – 20kHz frequency response.
- 30W continuous power handling.
- Barrier strip connectors.
- 70/100 volt multi-tap transformer with 8 ohm bypass.
- Includes ball mount assembly and yoke mount.
- Enclosure is molded from high impact polystyrene (HiPS).
- Powder coated aluminum grille.
- Available in black or white.



#### AD-S52/ AD-S52T

Perfect for background/foreground music, paging, even secondary coverage in live performance venues, the AD-S52 and the AD-S52T are ideal small format surface mount loudspeaker solutions for spaces requiring accurate reproduction and audio quality. The loudspeaker's sleek and contemporary styling allows it to easily blend into a variety of restaurant, retail, multimedia or other fixed installation settings.

- 5.25" weather resistant woofer.
- 1" neodymium tweeter.
- 60Hz – 20kHz frequency response.
- 60W continuous power handling.
- Binding post connectors.
- Low impedance (AD-S52) and 70/100 volt with 8 ohm bypass (AD-S52T) versions.
- Enclosure is molded from high impact polystyrene (HiPS).
- Powder coated aluminum grille.
- Available in black or white.
- Flexible ball mount assembly included.
- Available optional yoke mount bracket.

## AcousticDesign™ Series Loudspeakers

Surface-mount



### AD-S82

The AD-S82 is a full range, surface mount loudspeaker featuring contemporary styling perfect for a variety of environments and applications. Featuring the QSC IntelliDock™ intelligent mounting system, this unique mounting system combines all the components needed to mount, wire, and position the speaker into a single housing independent of the loudspeaker enclosure.

- 8" weather resistant woofer.
- 1" pure titanium dome tweeter.
- 65Hz – 19kHz frequency response.
- 110W continuous power handling.
- Optional IntelliDock mounting system (AD-ID8) for low impedance, direct drive mode or with a 70V/100V transformer (AD-ID8T).\*
- Optional yoke mounts (AD-YM8) for low impedance, direct drive operation and the (AD-YM8T) available for 70V/100V on constant voltage lines.\*
- Enclosure is molded from high impact polystyrene (HiPS).
- Powder coated aluminum grille.
- Available in black or white.

\*Choose one of two available mounting options.



### 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. Like the AD-S82, the AD-S282H / AD-S282HT features contemporary styling and is perfect for a variety of environments and applications.

- Dual 8" weather resistant woofer.
- 1" exit compression driver.
- 60Hz – 29kHz frequency response.
- 450W continuous power handling.
- Biamp switchable (AD-S282H).
- Barrier strip connectors.
- Low impedance (AD-S282H) and 70/100 volt with 8 ohm bypass (AD-S282HT) versions.
- Enclosure is molded from high impact polystyrene (HiPS).
- Powder coated aluminum grille.
- Available in black or white.
- Yoke bracket included.

## AcousticDesign™ Series Loudspeakers

Installation Surface-mount



**AD-S32T**

**AD-S52**

**AD-S52T**

|                                     |   |                                   |                                   |
|-------------------------------------|---|-----------------------------------|-----------------------------------|
| Frequency Range (-10 dB)            | 65 Hz – 20 Hz   | 60 Hz – 20 kHz                    | 60 Hz – 20 kHz                    |
| Power Capacity                      | 30 W (100 hrs)  | 60 W (100 hrs)                    | 60 W (100 hrs)                    |
| System Sensitivity                  | 85 dB   | 86.5 dB                           | 86 dB                             |
| Coverage Angle                      | 100° conical  | 90° conical                       | 90° conical                       |
| Output <sup>1</sup> (Peak SPL @ 1M) | 105 dB  | 110 dB                            | 105 dB                            |
| Driver Information                  |   |                                   |                                   |
| LF                                  | 3" weather resistant, poly-propylene cone woofer            | 5.25" shielded, weather-resistant | 5.25" shielded, weather-resistant |
| HF                                  | 0.75" neodymium tweeter                                     | 1" neodymium tweeter              | 1" neodymium tweeter              |
| Rated Impedance                     | 8 ohm   | 8 ohm                             | 8 ohm                             |
| Input Connectors                    | Screw terminals   | 5-way binding posts x 2           | 5-way binding posts x 2           |
| Enclosure                           | Injection molded, weather resistant high impact polystyrene |                                   |                                   |
| Net Weight                          | 4 lb / 1.8 kg   | 15 lb / 6.8 kg                    | 18 lb / 8.2 kg                    |

<sup>1</sup> 2 hour rating using IEC60268 noise based on minimum impedance

<sup>2</sup> Mid-band based on nominal impedance







|                                     | <b>AD-S82</b>   | <b>AD-S282H</b>  | <b>AD-S282HT</b>   |
|-------------------------------------|---|--|--|
| Frequency Range (-10 dB)            | 65 Hz – 20 Hz   | 60 Hz – 20 kHz   | 60 Hz – 20 kHz   |
| Power Capacity                      | 110 W (8 hrs)   | 450 W (8 hrs)  | 450 W (8 hrs)  |
| System Sensitivity                  | 90.5 dB   | 85 dB  | 93 dB  |
| Coverage Angle                      | 90°H x 60°V (rotatable)   | 90°H x 60°V  | 90°H x 60°V  |
| Output <sup>1</sup> (Peak SPL @ 1M) | 117 dB  | 105 dB   | 125 dB   |
| Driver Information                  |   |  |  |
| LF                                  | 8" fiberglass cone, 1 1/4" voice coil                                     | Dual 8" high-power treated cone, 2" voice coil, neodymium magnet | Dual 8" high-power treated cone, 2" voice coil, neodymium magnet |
| HF                                  | 1" titanium dome tweeter, neodymium magnet                                | 1" high output compression driver                                | 1" high output compression driver                                |
| Rated Impedance                     | 8 ohm   | 8 ohm  | 8 ohm  |
| Input Connectors                    | Concealed 5-way binding posts x 2, IntelliDock mounting/connection system | Barrier Strip (switchable: passive/bi-amp)                       | Barrier Strip  |
| Enclosure                           | Injection molded, weather resistant high impact polystyrene               |  |  |
| Net Weight                          | 16.2 lb / 7.4 kg  | 27.7 lb / 12.6 kg  | 27.7 lb / 12.6 kg  |

<sup>1</sup> 2 hour rating using IEC60268 noise based on minimum impedance

<sup>2</sup> Mid-band based on nominal impedance



## AcousticDesign™ AD-S28Tw

Surface-mount



Designed and acoustically matched for use with AcousticDesign™ installation loudspeakers, the AD-S28Tw is a dual 8" 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" weather resistant polypropylene woofers provide exceptional resistance in high humidity environments.
- Bass extension down to 36Hz.
- Built-in, passive 120 Hz low-pass filter.
- 70/100 volt multi-tap transformer with 8 ohm bypass.
- Marine grade plywood enclosure.
- Nickel plated screw terminals accept up to 12 AWG (2.053 mm<sup>2</sup>) wiring.
- Rubber feet allow floor or shelf deployment.
- Forged-shoulder eyebolts and steel yoke enable suspended installation (included).



### AD-S28Tw

|                                       |   |
|---------------------------------------|---|
| Frequency Range <sup>1</sup> (-10 dB) | 36 Hz – 205 Hz  |
| Power Capacity                        | 250 W (2 hours IEC)   |
| System Sensitivity                    | 94 dB, 2.83 V, 1 m, half space (2 $\pi$ )   |
| Output <sup>2</sup>                   |   |
| 2 $\pi$ (half space)                  | 124 dB SPL / 118 dB SPL   |
| 4 $\pi$ (full space)                  | 118 dB SPL / 112 dB SPL   |
| Driver Information                    |   |
| LF                                    | Dual 8" (200 mm) weather resistant, polypropylene cone woofers, rubber surround       |
| Nominal Impedance                     | 8 ohm   |
| 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   |

1 All frequency ranges specified refer to measured free field response.

2 Calculated SPL at 1m, speaker operating at rated RMS power with pink noise within specified frequency range.

3 Maximum input power tested in accordance with IEC 268-5 recommendations, 50 Hz – 20 kHz band limiting, 6 dB signal crest factor.



## AcousticDesign™ Series Loudspeakers

Ceiling-mount



### AD-C42T

The AD-C42T loudspeaker system is ideal for paging, background music and general purpose playback where a small, minimally intrusive footprint is desired. Designed for blind-mount applications, the AD-C42T utilizes dog-ear mounting tabs and ships complete with C-rings and tile rails.

- 4" low-frequency woofer with 0.75" titanium diaphragm dome tweeter.
- 60Hz – 20kHz frequency range.
- 40W continuous power rating.
- 100° conical coverage.
- 70V/100V multi-tap transformer included with low impedance bypass.
- UL Listed (UL 1480 / UL 2043).

### AD-CI52T

The AD-CI52T loudspeaker system is ideal for paging, background music and general purpose playback where a small, minimally intrusive footprint is desired. Designed for blind-mount applications, the AD-CI52T utilizes dog-ear mounting tabs and ships complete with C-rings and tile rails.

- 5.25" low-frequency woofer with 1" titanium diaphragm dome tweeter.
- 65Hz – 20kHz frequency range.
- 40W continuous power rating.
- 90° conical coverage.
- 70V/100V multi-tap transformer included with low impedance bypass.
- 4-pin block input connector.
- UL Listed (UL 1480 / UL 2043).



### **AD-CI52ST**

Similar to the AD-CI52T, the AD-CI52ST loudspeaker system features a large-ported enclosure offering extended low frequency response while its shallow depth is ideal for installations with limited mounting space. Designed for blind-mount applications, the AD-CI52ST utilize dog-ear mounting tabs and ships complete with C-rings and tile rails.

- 5.25" low-frequency woofer with 1" titanium diaphragm dome tweeter.
- 53Hz – 20kHz frequency range.
- 40W continuous power rating.
- 90° conical coverage.
- 70V/100V multi-tap transformer included with low impedance bypass.
- 4-pin block input connector.
- UL Listed (UL 1480 / UL 2043).

### **AD-C81Tw**

The AD-C81Tw is a ceiling mounted subwoofer designed for use with both ceiling-mount and surface mounts AcousticDesign 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.

- 5.25" low-frequency woofer with 1" titanium diaphragm dome tweeter.
- 28Hz – 208Hz frequency range.
- 100W continuous power rating.
- 120Hz selectable low pass filter.
- 70V/100V multi-tap transformer included with low impedance bypass.
- 4-pin ceramic block input connector complies with European safety standards.
- UL Listed (UL 1480 / UL 2043).

## AcousticDesign™ Series Loudspeakers

Ceiling-mount



**AD-C42T**

**AD-CI52T**

|                                     |  |  |
|-------------------------------------|--|--|
| Frequency Range (-10 dB)            | 60 Hz – 20 kHz   | 65 Hz – 20 kHz   |
| Power Capacity <sup>1</sup>         | 40 W (100 hrs)   | 40 W (100 hrs)   |
| System Sensitivity <sup>2</sup>     | 88 dB  | 86 dB  |
| Coverage Angle                      | 100° conical   | 90° conical  |
| Output <sup>3</sup> (Peak SPL @ 1M) | 110 dB   | 108 dB   |
| Driver Information                  |  |  |
| LF                                  | 4" weather resistant, polypropylene cone woofer                    | 5.25" weather resistant, low distortion fiberglass cone woofer, 25 mm voice coil, neodymium magnet |
| HF                                  | 0.75" titanium dome tweeter, rubber surround                       | 1" titanium dome tweeter, rubber surround  |
| Rated Impedance                     | 8 ohm  | 8 ohm  |
| Input Connectors                    | Ceramic block or 4-pin Euro terminals, fire protective sub-chamber | 4-pin Euro terminals, fire protective sub-chamber  |
| Enclosure                           | UL-rated steel backcans  |  |
| Net Weight (each)                   | 6.1 lb / 2.7 kg  | 7.5 lb / 3.4 kg  |

<sup>1</sup> Continuous IEC specified test signal, 2 hours unless otherwise stated.

<sup>2</sup> Based on nominal impedance, measured in full space. 1 W @ 1 m.

<sup>3</sup> Calculated using specified power capacity and system sensitivity. 6 dB peak-to-average signal ratio assumed.



**AD-CI52ST****AD-C81Tw**

|                                     |  |  |
|-------------------------------------|--|--|
| Frequency Range (-10 dB)            | 53 Hz – 20 kHz   | 28 Hz – 208 Hz   |
| Power Capacity <sup>1</sup>         | 40 W (100 hrs)   | 250 W (100 hrs)  |
| System Sensitivity <sup>2</sup>     | 87.5 dB  | 94 dB  |
| Coverage Angle                      | 100° conical   | N/A  |
| Output <sup>3</sup> (Peak SPL @ 1M) | 109 dB   | 118 dB   |
| Driver Information                  |  |  |
| LF                                  | 5.25" weather resistant, low distortion fiberglass cone woofer, 25 mm voice coil, neodymium magnet | 8" weather resistant, polypropelene cone woofer, rubber surround   |
| HF                                  | 1" titanium dome tweeter, rubber surround  | N/A  |
| Rated Impedance                     | 8 ohm  | 8 ohm  |
| Input Connectors                    | 4-pin Euro terminals, fire protective sub-chamber  | Ceramic block or 4-pin Euro terminals, fire protective sub-chamber |
| Enclosure                           | UL-rated steel backcans  |  |
| Net Weight (each)                   | 6.1 lb / 2.7 kg  | 7.5 lb / 3.4 kg  |

<sup>1</sup> Continuous IEC specified test signal, 2 hours unless otherwise stated.

<sup>2</sup> Based on nominal impedance, measured in full space. 1 W @ 1 m.

<sup>3</sup> Calculated using specified power capacity and system sensitivity. 6 dB peak-to-average signal ratio assumed.



## AcousticDesign™ Series Loudspeakers

Ceiling-mount



### AD-C820R/S | AD-C821R/S

The AD-C820R/S and AD-C821R/S (R for Round Grille and S for Square Grille) 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 "dog-ear" style mounting - perfect for blind mount installations. Both models also include a set of tile rails and C-rings to complete the installation.

- 8" low-frequency woofer with 1.4" diaphragm coaxially-mounted compression driver.
- 52Hz – 18kHz frequency range.
- 200W continuous power rating.
- 90° conical coverage.
- 70V/100V 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.
- UL Listed (UL 148 and UL 2043).



|  | <b>AD-C820/C821</b>   | <b>AD-C1200</b>  |
|--|---|--|
| Effective frequency range <sup>1</sup> | 52 Hz – 18 kHz  | 37 Hz – 18 kHz   |
| Power Capacity <sup>1</sup>            | 200 W (100 hrs)   | 300 W (100 hrs)  |
| Sensitivity <sup>2</sup>               | 91 dB   | 93 dB  |
| Nominal Coverage                       | 90° conical   | 85° conical  |
| Output <sup>3</sup> (Peak SPL @ 1M)    | 120 dB  | 124 dB   |
| Driver Information                     |   |  |
| LF                                     | 8" weather resistant, treated cone woofer   | 12" weather resistant, treated cone woofer, 75 mm voice coil, ferrite magnet |
| HF                                     | 1.4" co-axial compression driver  | 1.75" co-axial compression driver  |
| Rated Impedance                        | 16 ohm  | 16 ohm   |
| Input Connectors                       | AD-C820: Ceramic block<br>AD-C821: 4-pin Euroblock<br>Fire protective sub-chamber | Ceramic block terminals<br>Fire protective sub-chamber                       |
| Enclosure                              | UL-rated steel backcans   |  |
| Net Weight (each)                      | 17.5 lb / 7.9 kg  | 78 lb / 35.3 kg  |

<sup>1</sup> Continuous IEC specified test signal, 2 hours unless otherwise stated.

<sup>2</sup> Based on nominal impedance, measured in full space. 1 W @ 1 m.

<sup>3</sup> Calculated using specified power capacity and system sensitivity. 6 dB peak-to-average signal ratio assumed.



### Available AD-C Accessories

- ADC-MR4: Mud Ring Bracket for AD-C42T.
- ADC-NC4: New Construction Bracket for AD-C42T.
- ADC-MR: Mud Ring Bracket for AD-CI52T.
- ADC-NC: New Construction Bracket for AD-CI52T.
- ADC-MRS: Mud Ring Bracket for AD-CI52ST and AD-C820R/S & AD-C821R/S.
- ADC-NCS: New Construction Bracket for AD-CI52ST and AD-C820R/S & AD-C821R/S.

## AcousticDesign™ Series

### Ceiling-mount Subwoofer



#### AD-C1200

The AD-C1200 loudspeaker system 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' enclosure using industry-standard transducer / baffle mounting points.

- 12" low-frequency woofer with 1.75" diaphragm coaxially-mounted compression driver.
- 37Hz – 18kHz frequency range.
- 300W continuous power rating.
- 85° conical coverage.
- 70V/100V multi-tap transformer included included with low impedance bypass.
- Ceramic input screw terminal.
- UL Listed (UL 148 and UL 2043).



### AD-C1200

|  |  |
|--|--|
| Effective frequency range <sup>1</sup> | 37 Hz – 18 kHz   |
| Power Capacity <sup>1</sup>            | 300 W (100 hrs)  |
| Sensitivity <sup>2</sup>               | 93 dB  |
| Nominal Coverage                       | 85° conical  |
| Output <sup>3</sup> (Peak SPL @ 1M)    | 124 dB   |
| Driver Information                     |  |
| LF                                     | 12" weather resistant, treated cone woofer, 75 mm voice coil, ferrite magnet |
| HF                                     | 1.75" co-axial compression driver  |
| Rated Impedance                        | 16 ohm   |
| Input Connectors                       | Ceramic block terminals<br>Fire protective sub-chamber                       |
| Enclosure                              | UL rated steel backbox   |
| Net Weight (each)                      | 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.*



## AcousticPerformance™ Series Loudspeakers



AcousticPerformance™ 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 loudspeakers utilize DMT™ (Directivity Matched Transition), a design approach that matches HF waveguide to the natural coverage angle of the woofer at the cross-over 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-Gauge powder coated steel grilles.
- Complete EASE, CAD, and BIM information available online.

**AP-5102****AP-5122**

|                                     |  |  |
|-------------------------------------|--|--|
| Frequency Range (-10 dB)            | 60Hz – 18kHz   | 48Hz – 18kHz   |
| Power Capacity                      | 450W / 54V continuous  | 550W / 60V continuous  |
| System Sensitivity                  | 94dB, 1W@1m  | 95dB, 1W@1m  |
| Coverage Angle                      | 105° conical   | 90° conical  |
| Output <sup>1</sup> (Peak SPL @ 1M) | 127 dB   | 128 dB   |
| Driver Information                  |  |  |
| LF                                  | 254 mm (10") driver with 76 mm (3") VC; 450W / 54V (2 Hrs)   | 305 mm (12") driver with 102 mm (4") VC; 450W / 60V (2 Hrs)  |
| HF                                  | 76 mm (3") voice coil, compression driver; 72W / 24V (2 Hrs) | 76 mm (3") voice coil, compression driver; 72W / 24V (2 Hrs) |
| Rated Impedance                     | 8 ohms   | 8 ohms   |
| 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  |

<sup>1</sup> 2 hour rating using IEC60268 noise based on minimum impedance

<sup>2</sup> Mid-band based on nominal impedance



## AcousticPerformance™ Series Loudspeakers



**AP-5152**



**AP-5122m**

|                                     |  |  |
|-------------------------------------|--|--|
| Frequency Range (-10 dB)            | 44Hz – 18kHz   | 55Hz – 18kHz   |
| Power Capacity                      | 625W / 65V continuous  | 550W / 60V continuous  |
| System Sensitivity                  | 96dB, 1W@1m  | 95dB, 1W@1m  |
| Coverage Angle                      | 75° conical  | 90° conical  |
| Output <sup>1</sup> (Peak SPL @ 1M) | 129 dB   | 128 dB   |
| Driver Information                  |  |  |
| LF                                  | 381 mm (15") driver with 102 mm (4") VC; 525W / 65V (2 Hrs)  | 305 mm (12") driver with 102 mm (4") VC; 450W / 60V (2 Hrs)  |
| HF                                  | 76 mm (3") voice coil, compression driver; 72W / 24V (2 Hrs) | 76 mm (3") voice coil, compression driver; 72W / 24V (2 Hrs) |
| Rated Impedance                     | 8 ohms   | 8 ohms   |
| 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  | 63 lb / 28.3 kg  |



**AP-4122m****AP-212sw**

|                                     |  |  |
|-------------------------------------|--|--|
| Frequency Range (-10 dB)            | 50Hz – 18kHz   | 35Hz – 250kHz                                  |
| Power Capacity                      | 400W / 40V continuous                                | 600W / 49V continuous                          |
| System Sensitivity                  | 96dB, 1W@1m  | 93dB, 1W@1m                                    |
| Coverage Angle                      | 90° conical  | NA   |
| Output <sup>1</sup> (Peak SPL @ 1M) | 128 dB   | 127 dB   |
| Driver Information                  |  |  |
| LF                                  | 305 mm (12") driver with 64 mm (2.5") VC             | 2 x 305 mm (12") weather resistant cone woofer |
| HF                                  | 25 mm (1") compression driver; with 45 mm (1.75") VC |  |
| Rated Impedance                     | 4 ohms   | 4 ohms   |
| Input Connectors                    | Barrier Strip, NL4 connector                         | Barrier Strip, NL4 connector                   |
| Enclosure                           | 15-ply Baltic birch plywood                          | 15-ply Baltic birch plywood                    |
| Net Weight                          | 39.7 lb / 18.1 kg                                    | 65.4 lb / 29.7 kg                              |



## ILA Series v2 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 System v2 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" diameter low-frequency drivers.
- Dual 1.75" voice coil diameter, neodymium compression drivers with titanium domes.
- Patented\* multiple aperture diffraction waveguide that provides extremely wide coverage (140°).
- 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.

\*Patent No. 7,177,437

**WL2082-i**

|                             |   |
|-----------------------------|---|
| Frequency Range (-10 dB)    | 68 Hz – 22 kHz                                      |
| Nominal Coverage            | 140° H  |
| Peak Output <sup>2</sup>    | 132 dB  |
| Power Handling <sup>1</sup> |   |
| HF                          | 100 W   |
| LF / MF / Bi-amp            | 400 W   |
| Tri-amp                     | 200 W + 200 W                                       |
| Driver Information          |   |
| LF                          | 2 x 8" transducers; 2" voice coil; neodymium magnet |
| HF                          | 2 x 1.75" titanium diaphragm, neodymium magnet      |
| Input Connectors            | 2 x NL8 in parallel                                 |
| Enclosure                   | HIPS  |
| Net Weight (each)           | 37 lb / 16.8 kg                                     |

1 Continuous IEC specified test signal, 2 hours.

2 Calculated at 1 m using power capacity and system sensitivity.

6 dB peak-to-average signal ratio assumed.



## ILA Series v2 Installation Line Array



GP118-sw

### GP118-sw Subwoofer

- 18" diameter low-frequency driver.
- 850W continuous power handling.
- Performance down to 29Hz.
- Integrated M10 suspension points.
- M20 threaded pole mount.
- Available in black or white and housed in a Birch plywood enclosure.

### WL118-sw Subwoofer

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



WL118-sw

|                                    | <b>GP118-sw</b>                                      | <b>WL118-sw</b>  |
|------------------------------------|--|------------------|
| Frequency Range (-10 dB)           | 29 Hz – 800 Hz                                       | 29 Hz – 800 Hz   |
| Nominal Coverage                   | N/A  | N/A              |
| Peak Output <sup>2</sup>           | 134.5 dB   | 134.5 dB         |
| Power Handling <sup>1</sup><br>SUB | 850 W  | 850 W            |
| Driver Information<br>LF<br>HF     | 18" transducer, 4" voice coil, ferrite magnet<br>N/A |                  |
| Input Connectors                   | 2 x NL8 in parallel and 2 x NL4 in parallel          |                  |
| Enclosure                          | Premium Birch Plywood                                |                  |
| Net Weight (each)                  | 107 lb / 48.5 kg                                     | 111 lb / 50.4 kg |

<sup>1</sup> Continuous IEC specified test signal, 2 hours.

<sup>2</sup> Calculated at 1 m using power capacity and system sensitivity.  
6 dB peak-to-average signal ratio assumed.



## K Series Active Loudspeakers



K Series loudspeakers feature a 1,000 watt, Class D power module and onboard DSP that deliver levels of sonic clarity and total output that exceed expectations for systems of this size and weight. With three full-range models in the line (K8, K10 and K12) plus a subwoofer (KSub), users can select a model based on desired coverage angle for optimum performance.

- Combo XLR / 1/4" TRS inputs.
- Direct thru-puts and balanced summed output.
- DEEP™ provides extended low-frequency performance.
- Intrinsic Correction™ ensures a flat sonic response.
- Integrated M10 suspension points on full range models.
- Rugged ABS enclosures (full-range models) with professional, discreet appearance.
- Monitor deployment angles on K10 and K12 models.
- On-board mixing of up to three audio sources.

|   | <b>K8</b>   | <b>K10</b>                            |
|---|---|---------------------------------------|
| Frequency Range (-10 dB)                      | 61 Hz – 20 kHz  | 56 Hz – 20 kHz                        |
| Nominal Coverage (-6 dB)                      | 105° conical  | 90° conical                           |
| Output <sup>1</sup> (Peak SPL @ 1M)           | 127 dB  | 129 dB                                |
| Amplifier Power                               | 1000 W continuous Class D   | 1000 W continuous Class D             |
| Current Consumption<br>1/8 Power <sup>2</sup> | 100 VAC, 2.3 A • 120 VAC, 2.01 A • 230 VAC, 1.13 A  |                                       |
| Driver Information                            |   |                                       |
| LF  | 8" cone transducer  | 10" cone transducer                   |
| HF  | 1.75" diaphragm<br>compression driver   | 1.75" diaphragm<br>compression driver |
| Input Connectors                              | Balanced female XLR / 1/4" mic/line level input • Balanced female XLR / 1/4" line level input • 2 x RCA (Phono) |                                       |
| Enclosure                                     | Impact-resistant ABS  | Impact-resistant ABS                  |
| Net Weight                                    | 27 lb / 12.2 kg   | 32 lb / 14.5 kg                       |

|   | <b>K12</b>   | <b>KSub</b>   |
|---|--|---|
| Frequency Range (-10 dB)                      | 48 Hz – 20 kHz   | 44 Hz – 148 Hz                                      |
| Nominal Coverage (-6 dB)                      | 75° conical  | N/A   |
| Output <sup>1</sup> (Peak SPL<br>@ 1M)        | 131 dB   | 130 dB  |
| Amplifier Power                               | 1000 W continuous Class D  | 1000 W continuous Class D                           |
| Current Consumption<br>1/8 Power <sup>2</sup> | 100 VAC, 2.3 A • 120 VAC, 2.01 A • 230 VAC, 1.13 A   |   |
| Driver Information                            |  |   |
| LF  | 12" cone transducer  | Dual 12" cone transducers                           |
| HF  | 1.75" diaphragm<br>compression driver  | N/A   |
| Input Connectors                              | Balanced female XLR / 1/4"<br>mic/line level input • Balanced<br>female XLR / 1/4" line level input<br>• 2 x RCA (Phono) | Dual balanced female XLR /<br>1/4" line level input |
| Enclosure                                     | Impact-resistant ABS   | Painted birch plywood                               |
| Net Weight                                    | 41 lb / 18.6 kg  | 74 lb / 33.6 kg                                     |

1 Calculated for 1 m, based on sensitivity (full-space for full range systems and half-space for LF-only and subwoofer systems) and peak power capability of amplifier.

2 1/8 power is representative of current draw with typical music program material with occasional clipping.



## KW Series Active Loudspeakers

Portable/Production & Installed Sound



Built on the highly successful K Series platform, KW Series loudspeakers feature a 1,000 watt, Class D power module with onboard DSP housed in all birch wooden enclosures that deliver superior levels of sonic clarity and total output. With three full-range models in the line (KW122, KW152 and KW153) plus a subwoofer (KW181), users can select a model based on desired coverage angle for optimum performance.

- Combo XLR / 1/4" TRS inputs.
- Variable mic/line input gain.
- Direct thru-puts and balanced summed output.
- Integrated M10 suspension points on full range models.
- DEEP™ provides extended low-frequency performance.
- Intrinsic Correction™ ensures a flat sonic response.
- All birch plywood enclosures.
- On-board mixing of up to three audio sources.

|   | <b>KW122</b>   | <b>KW152</b>                          |
|---|--|---------------------------------------|
| Frequency Range (-10 dB)                      | 50 Hz – 20 kHz   | 43.7 Hz – 20 kHz                      |
| Nominal Coverage (-6 dB)                      | 75° conical  | 60° conical                           |
| Output <sup>1</sup> (Peak SPL @ 1M)           | 131 dB   | 133 dB                                |
| Amplifier Power                               | 1000 W continuous Class D  | 1000 W continuous Class D             |
| Current Consumption<br>1/8 Power <sup>2</sup> | 100 VAC, 2.3 A • 120 VAC, 2.01 A • 230 VAC, 1.13 A   |                                       |
| Driver Information                            |  |                                       |
| LF  | 12" cone transducer  | 15" cone transducer                   |
| HF  | 1.75" diaphragm<br>compression driver  | 1.75" diaphragm<br>compression driver |
| Input Connectors                              | Balanced female XLR / 1/4" mic/line level input •<br>Balanced female XLR / 1/4" line level input • |                                       |
| Enclosure                                     | Painted Birch Plywood  | Painted Birch Plywood                 |
| Net Weight                                    | 49 lb / 22.2 kg  | 64 lb / 29 kg                         |

|   | <b>KW153</b>   | <b>KW181</b>  |
|---|--|---|
| Frequency Range (-10 dB)                      | 33 Hz – 20 kHz   | 34 Hz – 143 Hz                                      |
| Nominal Coverage (-6 dB)                      | 75° conical  | N/A   |
| Output <sup>1</sup> (Peak SPL @ 1M)           | 131 dB   | 130 dB  |
| Amplifier Power                               | 1000 W continuous Class D  | 1000 W continuous Class D                           |
| Current Consumption<br>1/8 Power <sup>2</sup> | 100 VAC, 2.3 A • 120 VAC, 2.01 A • 230 VAC, 1.13 A   |   |
| Driver Information                            |  |   |
| LF  | 15" cone transducer  | 18" cone transducer                                 |
| MF  | 6.5" mid range cone transducer   | N/A   |
| HF  | 1.75" diaphragm<br>compression driver  | N/A   |
| Input Connectors                              | Balanced female XLR / 1/4"<br>mic/line level input • Balanced<br>female XLR / 1/4" line level<br>input • | Dual balanced female XLR /<br>1/4" line level input |
| Enclosure                                     | Painted Birch Plywood  | Painted Birch Plywood                               |
| Net Weight                                    | 41 lb / 18.6 kg  | 74 lb / 33.6 kg                                     |

1 Calculated for 1 m, based on sensitivity (full-space for full range systems and half-space for LF-only and subwoofer systems) and peak power capability of amplifier.

2 1/8 power is representative of current draw with typical music program material with occasional clipping.



## KLA Series Active Loudspeakers

Portable/Production & Installed Sound



The KLA Series brings the power and sophistication of a line array system into an easy-to-use product, significantly redefining the line array product category. With its simple “Lift, Click and Play” approach, KLA can be deployed in a fraction of the time required by comparable installation line array products. This fixed arcuate, active line array system is ideal for a wide range of permanently installed applications ranging from performance venues to houses of worship or other venues where a line array system is desired.



- 1,000 Watt Class D power module.
- Integrated XLR winput with loop thru.
- 90° x 18° coverage (each enclosure).
- Integrated M10 suspension points.
- Integrated, easy-to-use rigging hardware allows for quick deployment.
- Ar-Q™ (Arcuate Equalization) enables quick tuning of an array with the click of a switch.
- DEEP™ provides extended low-frequency performance.
- Intrinsic Correction™ ensures a flat sonic response.
- KLA12 features an ABS enclosure and KLA181 features a birch enclosure.

|  | <b>KLA12</b>                                       | <b>KLA181</b>             |
|--|--|---------------------------|
| Frequency Range (-10 dB)                   | 44 Hz – 20 kHz                                     | 33 Hz                     |
| Nominal Coverage (-6 dB)                   | 90 x 18 degree                                     | N/A                       |
| Output <sup>1</sup> (Peak SPL @ 1M)        | 131 dB   | 135 dB                    |
| Amplifier Power                            | 500 W x 500 W continuous                           | 1000 W continuous Class D |
| Current Consumption 1/8 Power <sup>2</sup> | 100 VAC, 2.3 A • 120 VAC, 2.01 A • 230 VAC, 1.13 A |                           |
| Transducers                                |  |                           |
| LF   | 12" cone transducer                                | 18" cone transducer       |
| HF   | 1.75" diaphragm compression driver                 | N/A                       |
| Input Connectors                           | Balanced female XLR line level input               |                           |
| Enclosure                                  | Impact resistant ABS                               | Painted birch plywood     |
| Net Weight                                 | 55 lbs / 25.0 kg                                   | 104 lbs / 47.2 kg         |

<sup>1</sup> Calculated for 1 m, based on sensitivity (full-space for full range systems and half-space for LF-only and subwoofer systems) and peak power capability of amplifier.

<sup>2</sup> 1/8 power is representative of current draw with typical music program material with occasional clipping.



## **K Family Accessories**

### Available K Series Accessories

- K8 Yoke
- K10 Yoke
- K12 Yoke
- M10 Kit-C

### Available KW Series Accessories

- M10 Kit-W
- KW Suspension Kit 122

### Available KLA Series Accessories

- KLA AF12 Array Frame
- M10 Kit-C



Yoke Mount



Yoke Mount



KLA AF12 Array Frame



M10 Kit-C



AF12 Array Frame

# DIGITAL MIXERS



## TouchMix™ Series

Compact Digital Mixer



TouchMix-16

The TouchMix™ Series stands as the perfect compliment to any installation that might have live performance needs. It offers the power and capability of a large format console in a small, rack-mountable, fully integrated, affordable and easy-to-use product.

The **TouchMix-8** (12 input channels) and **TouchMix-16** (20 input channels) provide the user a choice of Advanced Mode operation that offers total control over all parameters or Simple Mode that provides only the most essential controls.

### “Big Mixer” Features and Specifications

TouchMix Series “no asterisk” specifications include 4-band, fully parametric EQ with variable hi-and lo-pass filters, as well as comprehensive dynamics processing on each input channel. Four mix busses feed four internal, professional, digital effects processors. Comprehensive dynamics, graphic EQ, hi-pass, lo-pass and notch filters and delay are available on both the main and aux outputs and there are 8 DCA groups with mutes as well as 8 mute groups. With four (TouchMix-8) or ten (TouchMix-16) auxiliary output channels, TouchMix also has ample stage monitor mixing capability. Both models have the ability to drive, wired stereo in-ear monitors directly.



TouchMix-16



TouchMix-8

## Fast, Professional Results

TouchMix features a comprehensive library of Channel Presets, created specifically for the unique requirements of live sound reinforcement. Designed by veteran live sound engineers utilizing all types of instruments, popular microphones and pickups as well as multiple types of speaker systems, these presets help the user achieve great results quickly. The mixers' onboard Effects Wizard guides the user through the selection and assignment of appropriate effects while the Gain Wizard continuously monitors and displays input clipping. TouchMix also comes with a comprehensive library of complete Mixer Scenes, and all user parameters of any mix can be saved, both internally and via USB drive.

## Compact and Complete

The TouchMix Series models are completely self-contained and require no external PC or video display. The graphic, color touch-screen provides access to all mix parameters along with a physical rotary encoder and hardware buttons. The available Remote Control App for iOS phones and tablets controls all mixer parameters and the included USB Wi-Fi adapter creates the network connection between the mixer and the hand-held device. While no additional hardware is required, wired or wireless connection to an external or infrastructure router is also supported. The mixer is also capable of direct, multi-track recording to an external USB hard drive in 32-bit broadcast wave format. Tracks can be mixed down or played back on the mixer or imported into most DAW software for over-dubs and post-production.



Available rackmount accessory

## TouchMix™ Series

Compact Digital Mixer

### Specifications

|                                      | TouchMix-8  | TouchMix-16  |
|--------------------------------------|---|--|
| Display                              | 6.1" x 3.5" (156mm x 90mm) color TFT, touch sensing.  |  |
| Inputs (Mic/Line)                    | 12 Total<br>4, XLR/TRS combi<br>4, XLR<br>2 Stereo, 1/4" TRS  | 20 Total<br>4, XLR/TRS combi<br>12, XLR<br>2 Stereo, 1/4" TRS  |
| Input (Talkback)                     | n/a   | 1, XLR   |
| Outputs                              | 2 Main, XLR, Line<br>4 Aux., XLR, Line<br>1 Stereo. TRS, (Line or In Ear Monitor, 16 Ohm min. impedance)<br>1 Stereo Cue, TRS, (Line or headphone, 16 Ohm min. impedance) | 2 Main XLR, Line<br>6 Aux. XLR, Line<br>2 Stereo Aux. TRS, (Line or In Ear Monitor, 16 Ohm min. impedance)<br>1 Stereo Monitor, TRS, (Line or headphone, 16 Ohm min. impedance)<br>1 Stereo Cue, TRS, (Line or headphone, 16 Ohm min. impedance) |
| Mic & Line Input Channel Processing  | 4-band, parametric EQ with Hi/Low shelving option, variable 24db/octave HPF & LPF, Gate, Compressor   |  |
| 2-Track (USB) & FX Return Processing | 2-band shelving EQ, variable 24db/octave HPF, Gate, Compressor  |  |
| Output Channel Processing            | Main outputs and auxes 1 - 6: 1/3 octave GEQ, Variable HPF and LPF, 4-band variable notch filters, Limiter<br>Auxes 7/8 & 9/10 (TM-16 only): 4-band PEQ, Limiter          |  |
| Recording                            | 14 tracks, requires USB 3.0 HD, minimum 7800 RPM  | 20 tracks, requires USB 3.0 HD, minimum 7800 RPM   |
| Groups                               | 8 DCA groups (with mutes)<br>8 Mute groups  |  |
| Cue                                  | AFL, PFL  |  |
| Effects                              | 4 professional effects engines including reverb, echo, delay, chorus.<br>1 Pitch Correct (assignable to any mono input channel)   |  |





## Specifications

|                           | TouchMix-8  | TouchMix-16                                     |
|---------------------------|---|---|
| Preset Memory             | Mixer Preset: Factory & User mixer presets including all mixer parameters may be stored internally or loaded to / from USB<br>Channel Preset: Factory & User channel presets may be stored internally or loaded to / from USB |   |
| External Control          | iOS mixer app for iPad, iPhone, iPod Touch control via Wi-Fi provides access to all mixer functions. Android control available mid-2015.  |   |
| Wi-Fi                     | USB Wi-Fi adapter included; Wireless or wired connectivity to external network also supported   |   |
| Dimensions (HWD)          | 3.1" x 13.1" x 9.8"<br>79 mm x 333 mm x 250 mm  | 3.5" x 14.2" x 11.7"<br>89 mm x 360 mm x 297 mm |
| Weight                    | 4.3 lb / 1.95 kg  | 5.9 lb / 2.98 kg                                |
| Line Voltage Requirements | 100 VAC - 240 VAC, 50 - 60 Hz   |   |
| Sampling Frequency        | Selectable 44.1kHz or 48kHz   |   |
| Signal Delay (Latency)    | <1.6msec, any input to any output   |   |
| THD                       | <0.005%, +4 dBu, 20 Hz - 20 kHz, unity gain, any input to any output  |   |
| Frequency Response        | 20 Hz - 20 kHz +/-0.5 dB, any input to any output   |   |
| Dynamic Range             | 105dB   |   |
| Equivalent Input Noise    | -128dBu   |   |
| Residual Output Noise     | -86dBu  |   |
| Crosstalk                 | -80dB   |   |
| S/N Ratio                 | -94dB   |   |
| Input Gain                | Microphone inputs: 60dB, Line   |   |
| Maximum Input Level       | +16dB (Mic inputs),<br>+22dB (Line inputs)  |   |
| Phantom Power             | 48V, individually switchable per channel  |   |
| Included Accessories      | USB Wi-Fi adapter, Soft Carrying Case, Power Supply   |   |



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