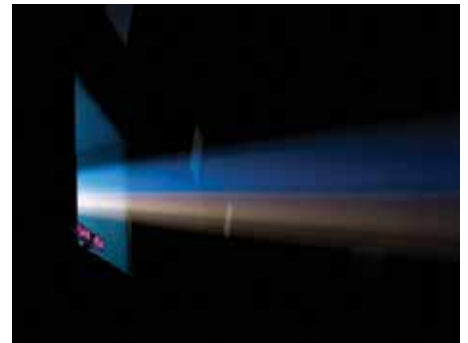




QSCCINEMA.COM

Cinema Audio Solutions



2014-2015




QSCTM

CINEMA AUDIO SOLUTIONS



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QSC™

Your Complete Cinema Sound Solution

Cinema isn't simply a product, it's an experience. There's a magic that happens when the lights go down and the audience lets itself be drawn into the world on screen. And sound is as important as sight in bringing that magic to life.

For over 30 years, QSC has been bringing out the magic in cinema sound. We've built a reputation for unmatched quality, performance, and reliability as the only major manufacturer of complete cinema solutions. With processing, amplification, and loudspeakers integrated into a seamless whole, QSC is the complete solution for all your cinema sound needs.




Who We Are

At QSC, our success in cinema reflects a hands-on background in theatrical exhibition that informs both product design and customer relations. We've operated projection booths, managed theatres, and worked for audio and projection manufacturers and post-production studios. We know what it's like to wire a theater or climb behind the screen to get at a speaker. And we know what it costs when technical issues delay theater openings or result in Saturday night refunds.

The result is a cinema product line that not only sounds spectacular, but is also remarkably fast to install, simple to set up, and trouble-free to own. And we back every product and system with the kind of support that comes from knowing what it's like to operate a cinema complex.

What We Deliver

- State-of-the-art performance — QSC Cinema products are designed for the unique requirements of digital cinema soundtracks. Amps with ultra-low distortion combine with extended low-frequency woofers and phase-coherent mid/high elements for exceptional power, coverage, and intelligibility.
 - Field-proven reliability — Our secret is simple: Build it to last. You can't afford lost revenue from downtime and refunds, and we can't afford a reputation that's less than stellar. Long-term reliability continues to be a key ingredient of every product we make.
 - Complete integrated solutions — More than a collection of individual parts, a cinema sound system is an interconnected whole. That's why QSC designs system-level operation into each of our components. With our unique, system-focused approach, installation is faster, setup is easier, and operation is more efficient.
 - Unsurpassed support — Working both directly and through our worldwide network of regional dealers, QSC's mission is your satisfaction. Our product support team helps tailor systems to your specific technical and budgetary requirements. We provide diagrams that speed installation, and we're available for on-site commissioning and training. If service issues arise, we understand that lost time means lost revenue, so our top priority is to get you up and running fast. And with a single point of responsibility, you know exactly who to call when you need help.
 - Lasting value — How do you measure the overall value of a sound system? Will it meet the sound quality expectations of tomorrow's tech-savvy audiences? Has every last detail been thought through to save you time and money? Do the components interface seamlessly, allowing efficient centralized monitoring and management? And does it all work without fail show after show, year after year, avoiding costly downtime and replacement? These are the standards by which we measure ourselves at QSC, and which make our products the best long-term value in cinema sound.
- 

Integrated Systems For Rooms of Every Size

As the world's only major manufacturer of complete cinema solutions, QSC designs and builds processing, amplification, and loudspeaker products with the total system in mind. Because our systems are more than a grab bag of discrete parts, we're able to think through every detail of how components can and should work together. The result is an unprecedented level of built-in integration under a single brand name: QSC. Our complete systems save setup time and cost, maximize user control, and deliver the best possible performance:

- **Integrated functionality** - By combining crossovers and booth monitors with routing, EQ, and status monitoring, our processors integrate key functions into a single network-ready environment that gives you fast setup and intuitive, unified control.
- **Crossover and EQ presets** in our processors optimize performance for each of our loudspeaker models, so our systems sound great right out of the box, saving you costly setup time.
- **Simplified network interfacing** for audio, monitoring, and control data cuts your wiring costs and enables remote operation and status monitoring of systems in multiple auditoriums, from on site or off.

Buying a complete solution from QSC also eliminates the common headaches of dealing with multiple vendors. All elements arrive on site in a single shipment rather than piecemeal. And there's no question about who takes responsibility for the overall system.

Finally, as a provider of complete cinema solutions, QSC designs and tests processors, amps, and loudspeakers the way they are used in the real world: together. By building products with a view toward full systems for a given size and type of room, we take the guesswork out of configuring all the diverse auditoriums you might have in your theater or chain. That gives you the confidence that the audio experience for every show on every screen in every house will delight your audiences and enhance your bottom line.

Large Rooms and Premium Cinemas

Large Format and premium auditoriums are your marquee rooms. It takes a lot of low-end power to pump the excitement to every seat, and great mid/high coverage to make sure that dialog is clearly intelligible everywhere. QSC's large-room systems do it all, combining processing, amplification, and loudspeakers into a complete leading-edge solution. For Large Format and premium rooms, our 4-way screen channel loudspeakers are the ideal choice.

- **4-way systems** provide smooth reproduction of mid/high frequencies by incorporating a VHF driver that handles 6 kHz and above, allowing the HF driver to be optimized for the 1.7 to 6 kHz range that is critical for dialog intelligibility.
- **Unique ring radiator design** time-aligns the acoustical centers of coaxial HF and VHF drivers, eliminating phase cancellation and uneven frequency response.
- **Switchable HF/VHF crossover** lets 4-way systems run either quad-amped or tri-amped, depending on your amplifier and wiring budget. With 4-way configurations ranging from four woofers down to one, QSC's screen channel options let you bring a premium movie listening experience to any size room.




The Ultimate In Big-Room Systems

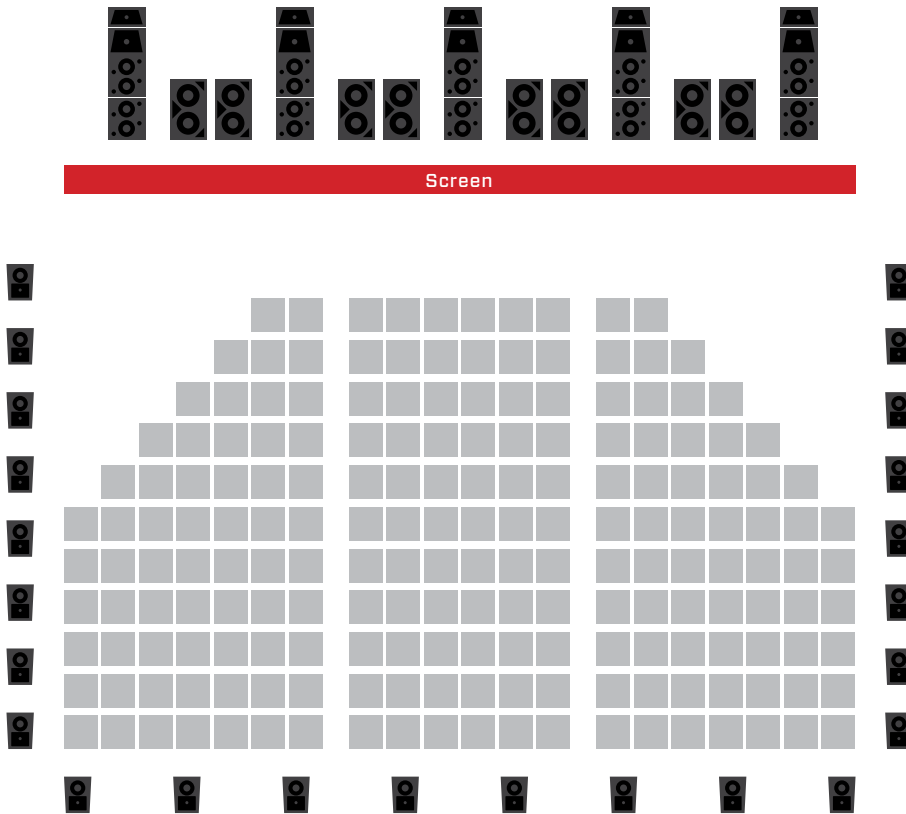
In a big room, it takes a big system to deliver big sound. QSC makes the only solutions that fully power the big-room experience while fully integrating system components. That's particularly important in a large room because the sound system is often more complex.

- **Optimized high-power design** delivers maximum power and intelligibility throughout large rooms without straining the system or endangering your investment.
- **Fast interfacing** reduces the installation time spent on connecting large systems.
- **Networked audio routing** minimizes signal losses, installation time, and cable costs from long audio runs.
- **Remote monitoring and control** makes large-system operation more efficient.

System Components

- **DCP 300** is the most flexible and expandable cinema processor on the market, merging processing and booth monitor functions into a single-box solution.
 - **DXP** is the key to system expansion. Use it to route signal over CobraNet™ on Cat-5 cable from the DCP 300 to point-of-use DXP units, which connect via DataPort to DCA amplifiers. DXP also collects amp status information and feeds it back to the network for monitoring.
 - **DCA amplifiers** are the most reliable, best-performing cinema amps available. DataPort enables fast interfacing with both DXP and DCPs.
 - **SC-444** is our largest screen channel loudspeaker. Four 15-inch woofers ensure clean, rich lows in even the largest cinemas, and a powerful midrange horn keeps critical dialog clear all the way to the last row.
 - **SB-7218** dual 18-inch subwoofers achieve the lowest possible distortion while producing lows your audience can feel as well as hear. Ample port area lowers port-induced noise and power compression. (See also the SB-15121).
 - **SR-1030** is one of our most powerful cinema surround speakers. A long-throw 10 woofer packs the punch of a much larger woofer with a coverage pattern that matches the horn. When even more SPL is required, our SR-1290, AP-5102, AP-5122, or AP-5152 offer more options for greater output.
- 

Large Room Sample System



In Theatre/Behind Screen

Screen Channels

5 x SC-444



8 x SB-7218



Surrounds

24 x SR-1030



 = 4 Seat Block

Projection/Rack Rooms

Control

Computer



Ethernet Switch



Processing

1 x DCP 300



1 x DXP



Amplifiers

5 x DCA 1622



8 x DCA 2422



4 x DCA 3422



Born To Fly

Whether they're Large Format or simply large, the biggest auditoriums often call for dome and point-source speakers to be suspended from above rather than resting on platforms. Built around the same driver technology that goes into our top-line 3-way and 4-way screen channel loudspeakers, QSC's SC-423C-F and SC-424-8F deliver no-compromise audio fidelity in a package that is expressly designed for the unique requirements of suspension:

- **Tough birch-ply enclosure** patterned after our rugged tour-grade loudspeakers makes the SC-423C-F and SC-424-8F light but strong.
- **M10 attachment points** supported by internal steel brackets accommodate all common suspension systems to ensure safe and easy installation.
- **Consistent external dimensions** in horizontal or vertical orientation facilitate maximum hanging flexibility for high- and low-frequency cabinets.

With high-flying performance and ultra-safe, rigging-friendly mounting, the SC-424-8F is the ultimate flown cinema speaker. The cost effective SC-423C-F operates in bi-amp mode to save on wiring and amplifier cost.



Suspension hardware not included

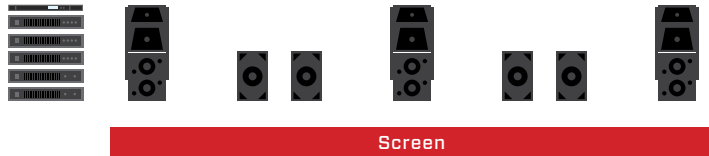
With its massive 21-inch driver, the SB-15121 provides a truly earth-shaking experience for premiere cinema auditoriums.



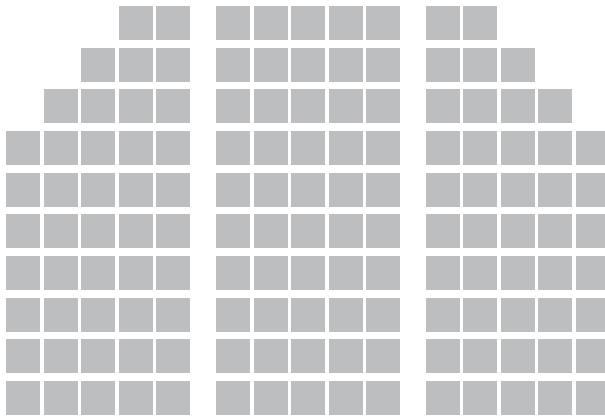
Lowest Of The Lows

It takes high performance to bring out the lowest of the low frequencies. So QSC designed the SB-15121, a massive 21-inch subwoofer that lets moviegoers feel it all — literally. Housed in a rugged ported cabinet, the SB-15121 is perfect for contemporary high-impact soundtracks. Never muffled or smeared, the SB-15121 expertly delivers the massive lows needed for premium and Large Format rooms. Its rich, deep bass is the perfect complement to the superior definition and clarity of our high performance screen channel speakers.

Large Format/Dome Sample System



Screen



■ = 4 Seat Block

In Theatre/Behind Screen

Processing

1 x DXP



Amplifiers

3 x DCA 1644



2 x DCA 3422



Screen Channels and Subs

3 x SC-424-8F



4 x SB-15121



Projection/Rack Rooms

Control

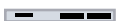
Computer



NAC-100



Ethernet Switch



Processing

1 x DCP 300



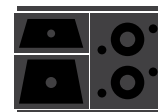
Amplifiers

3 x DCA 1644



Surrounds

3 x SC-424-8F



Mid-Size Rooms

Mid-size rooms often make up the majority of theatres in a complex. While not as glamorous as premium rooms, you can't afford to let your mid-size rooms fall behind the technology curve. At the same time, you need a solution that doesn't break the bank. That's why the QSC system-focused approach is perfect for mid-size rooms.

Starting from the premise that high performance is non-negotiable, QSC designs for maximum end-to-end efficiency. The result is not only enhanced quality and reliability but also exceptional value.

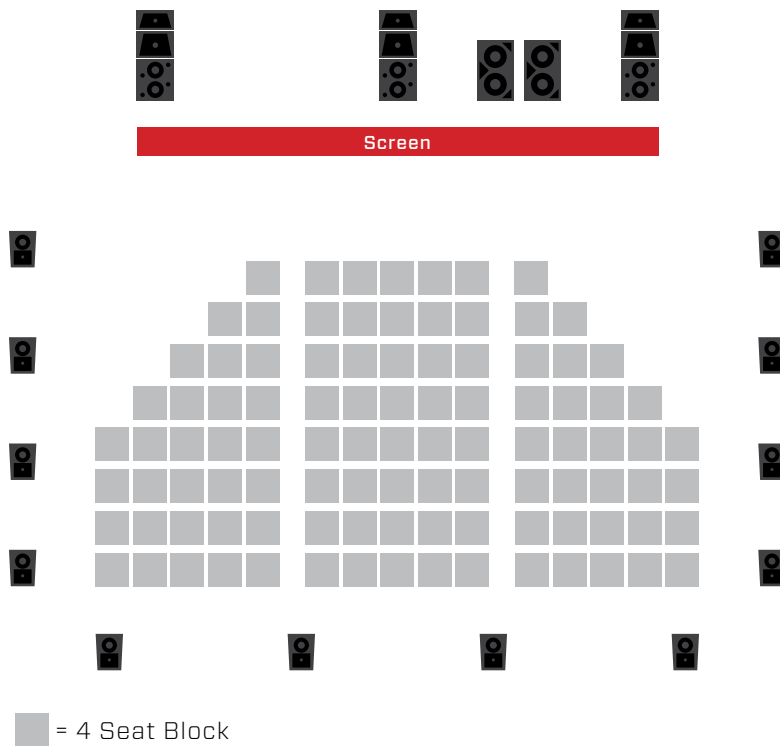
QSC offers a range of screen channel loudspeakers for mid-sized rooms, ranging from fully-passive two-way to bi-, tri-, or even quad-amplified two- and three-way systems.



SC-423C



Mid-Size Room Sample System



In Theatre/Behind Screen

Screen Channels and Subs

3 x SC-323C



2 x SB-5218



Surrounds

12 x SR-1020



Projection/Rack Rooms

Processing

1 x DCP 100



Amplifiers

3 x DCA 1622



1 x DCA 1824



1 x DCA 3422



Small Room Solutions



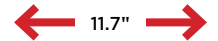
Small cinemas can range from “E-Cinemas” to intimate digital cinema auditoriums showing out-of-the-mainstream gems. While reduced in scale, their requirements are no less rigorous: even coverage, intelligible dialog, rich, balanced music, powerful low-frequency effects. So with fewer patrons per showing, how do you maintain audio quality while working on a tight budget? QSC Small Room Solutions.

Small Room Solutions are specifically sized to meet SPL requirements without distortion or stress on any of the components. Correct sizing of the loudspeaker system and power amplifiers is critical in these applications to ensure that room requirements are met without under or over specifying components. QSC technical support is available to assist you in choosing the best system for your small room application.

Shallow Box, Deep Sound

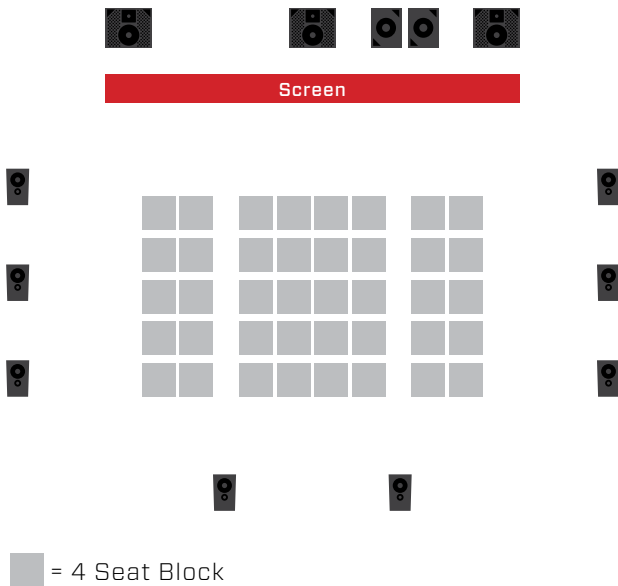
A key feature of all QSC Small Room Solutions is shallow loudspeaker enclosure depth. By occupying less space behind the screen, it creates more usable space in the room for seating.

Even our largest small room screen channel loudspeaker is barely over 14 inches (368 mm) deep. Other systems measure under 12 inches (297 mm) deep, including our SB-1180—one of the most compact 18-inch subwoofers available. One or two SB-1180 subwoofers are the perfect low end complement for any QSC small room screen channel loudspeaker.



Small Room Sample System

(Maximum room size for this example is 45 feet/14 meters from screen to last row)



In Theatre/Behind Screen

Screen Channels and Subs

3 x SC-1150



2 x SB-1180



Surrounds

8 x SR-8101



Projection/Rack Rooms

Processing

1 x DCP 100



Amplifiers

1 x DCA 1644



Left, Center, Right
(spare channel)

1 x DCA 1824



Left Surround, Right
Surround, Subwoofer
(bridge 2 channels)



Critical Listening Applications



For applications where only the best sound will do, there is no better choice than the QSC Reference Monitor System. Post-production facilities and studio dubbing stages require a loudspeaker system that delivers completely uncolored sound, so that they can reproduce the soundtrack that matches the filmmaker's artistic intent. The same requirements are shared by exhibitors or venue managers wishing to deliver the best "studio quality" sound to audiences in smaller screening rooms up to 35 feet in length. That's why QSC created the Reference Monitor System: to produce the most transparent sound possible, adding no coloration of the sound—letting sound engineers and audiences hear exactly what's being delivered from the mixing console or the digital soundtrack.

Featuring a three-way loudspeaker paired with a matching subwoofer, the Reference Monitor System loudspeakers are combined with QSC Q-Sys™ signal routing/processing and legendary QSC power amplifiers, resulting in the highest level of performance when sound quality is paramount.



RSC-112 / RSB-212



Q-Sys™ Core 250i



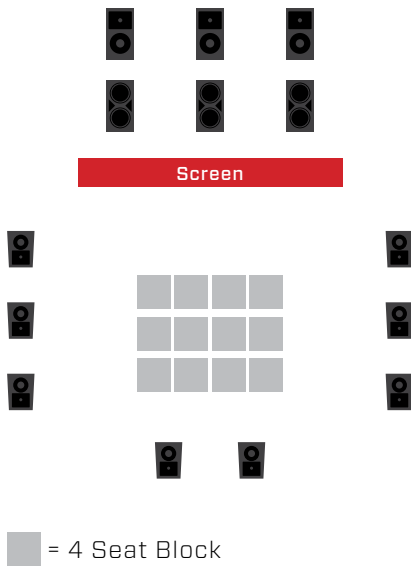
DCA 1222



DCA 3022



Sample System



In Theatre/Behind Screen

Screen Channels and Subs

3 x RSC-112



3 x RSB-212



Surrounds

8 x SR-8200



Projection/Rack Rooms

Control / Processing

1 x Q-Sys Core



Amplifiers

3 x DCA 1222



3 x DCA 3022



1 x DCA 1824



Immersive Sound

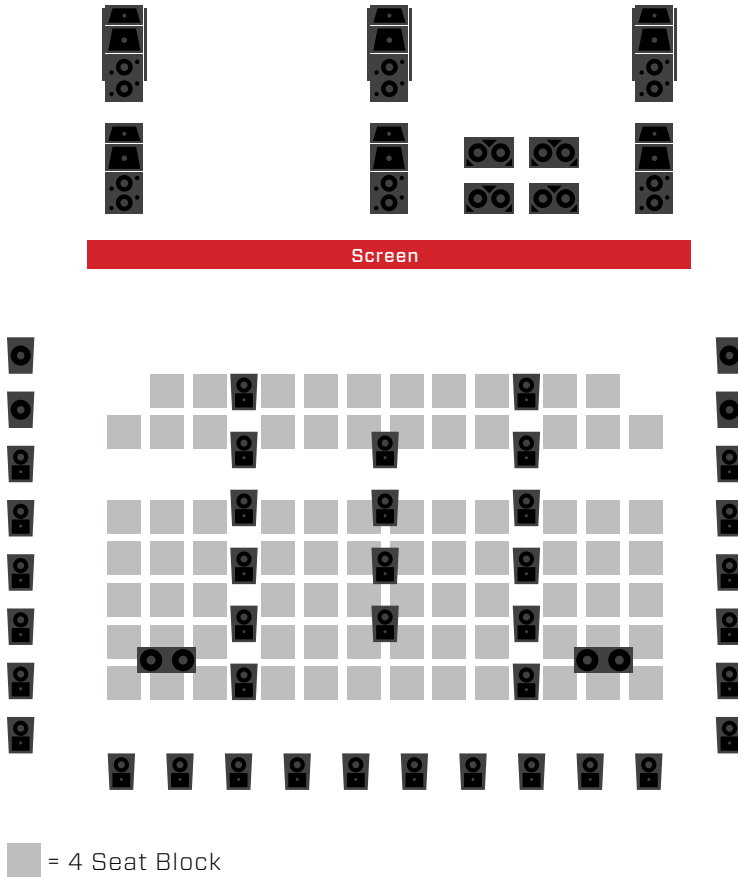
Immersive cinema sound formats give filmmakers more creative freedom in the production of the soundtrack. But for the exhibitor, it also places greater demands on the entire sound system—especially the surround loudspeakers and amplifiers. Sound designers want to localize sound with three-dimensional freedom at any volume level, so each individual loudspeaker needs to be capable of producing clean, undistorted sound at levels nearly comparable to that of a screen channel.

Loudspeakers

QSC offers a wide variety of loudspeakers for immersive sound applications:

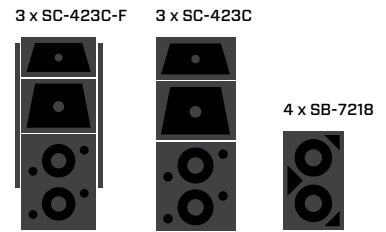
- The SR-1030 easily meets the output demands for most surround sound applications.
- The SR-1290 is a compact yet high-output coaxial surround loudspeaker with special features for installation and aiming from ceilings or front-of-house, close to the screen locations.
- For very large rooms or those with extremely high ceilings, we recommend the high-output AcousticPerformance AP-5122 (12-inch woofer) and AP-5152 (15-inch woofer). These loudspeakers are also ideal for front-of-house locations in very large rooms.
- Some immersive sound formats require a second tier of behind-screen loudspeakers, located above the typical Left, Center, Right platform mounted loudspeakers. Our SC-423C-F and SC-424-8F are purpose-built to be suspended.
- For immersive soundtracks that require extra low frequency extension for the surround channel, we offer the GP-118 and GP-218 compact flyable subwoofers, which can be safely suspended overhead or floor mounted at the rear of the theatre.



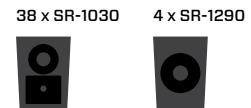


In Theatre/Behind Screen

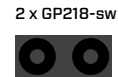
Screen Channels and Subs



Surrounds



Surrounds LFE



Projection/Rack Rooms

Control / Processing

1 x Q-Sys Core 500i



1 x Q-Sys I/O-22 (optional)



Ethernet Switch (Q-Sys qualified)



Amplifiers

7 x DPA4.2Q



9 x DPA4.3Q



3 x DPA4.5Q



Amplifiers

Another key difference in immersive applications is that each surround loudspeaker must be powered by its own dedicated amplifier channel. QSC offers a range of multi-channel power amplifiers that make it easy and cost-effective to provide discrete channels for each individual surround loudspeaker:

- The DCA 1644 four-channel amplifier is capable of delivering up to 400 watts per channel (at 4 ohms) in only two rack spaces.
- The 4-channel DPA Series amplifiers include three models which provide up to 1250 watts into 4 ohms, plus on board DSP-based signal processing in two rack spaces.
- The new DPA-Q Series, based on the DPA Series, accepts a direct Q-Sys network connection, streamlining system design while maximizing cost-effectiveness.



Immersive Sound Processing

Q-Sys is a powerful digital signal processing, routing, and networking platform that goes beyond loudspeaker signal processing. Designed to enterprise-class standards of quality, the Q-Sys Core is actually an Intel® server running rock-solid Linux software. Unlike systems based on proprietary chips, the Q-Sys platform will benefit from gains in processing power and speed as the worldwide computer market drives continued advances in processor performance.

Q-Sys provides all signal processing and routing for any input/output combination, and for any audio format including the new immersive sound formats like Dolby® Atmos®, Barco Auro 11.1, or MDA* (Multi-Dimensional Audio). It even accepts a direct digital connection via Ethernet from the Dolby CP850 Atmos processor, enabling an all-digital signal path to our DPA-Q network amplifiers. In addition, Q-Sys allows you to monitor each individual loudspeaker in real time, both visually using meters and with audio. The centralized design of a Q-Sys system using our Q-LAN network protocol allows you to control all parameters of system configuration and operation from any network access point—or even from an iOS mobile device.

*powered by DTS





Photo courtesy of TK Architects International





Cinema Processing Solutions



DCP series processors

The DCP Series is a line of integrated Digital Cinema Processors that bring together all the essential functions of cinema audio: crossovers, booth monitor, routing, EQ, and status monitoring. DCP processors tame the complexity of projection booth audio systems, replacing an assortment of separately sourced parts with a single box that handles everything. Wiring is drastically simplified. Operation is straightforward and intuitive. Networking is comprehensive and extensible. And control — both local and remote — is exhaustive. Simply put, the DCP Series is the world's most capable and efficient cinema processing solution.

	DCP 100	DCP 200	DCP 300
Digital In Channels	10*	16	16
Analog In Channels	8	10	10
Networked Audio I/O via CobraNet for DXP	no	yes	yes
Screen Channel Support	3	via DXP	3 or 5
Screen Channel Operation	Bi-amp or passive	via DXP	Quad-, Tri-, bi-amp, passive

Audio control

- DSP presets instantly optimize for DCS speaker systems
- Master volume and 1/3-octave graphic EQ for all full-range channels
- Parametric EQ, polarity, delay, and gain for each channel
- Crossover support for 3 screen channels (DCP 100)
- Crossover support for 5 Screen channels (DCP 300)

Networking

- CobraNet for digital audio transport to DXP (200 and 300)
- SNMP for remote on- or off-site control and monitoring
- Remote access over QSCControl.net

Connectivity

- Digital and analog inputs
- DB-25 connection with D-Cinema server or film processor
- DataPort amp connections (no barrier strips or XLRs)
- RS-232 for serial automation control



*DCP Series*

Compatibility

- Full DCA support makes existing amps network-ready
- Easy integration with existing film processors for dual film/digital installations
- Compatible with all 5.1 and 7.1 audio formats

Reliability

- Load-sharing dual power supplies for failure protection
- Multiple bypass modes with failure re-routing
- Full restore of settings from SD memory card

Ease of operation

- Unified environment for all booth system functions
- Create custom PC control screens with QSCreator software
- Touch screen control
- DCPNet enables network access to any DCP Series cinema processor
- DCPConnect is a mobile app that turns an iOS or Android mobile device into a complete cinema sound remote controller
- Easy firmware updates



DXP Digital Expansion Processor

The DXP Digital Expansion Processor works with the DCP 200 and 300 cinema processors to create the most powerful networked audio solution for cinema. DCA Series amplifiers connect to the DXP via twelve DataPorts for maximum output and control flexibility for even the largest systems. The DataPort connection supplies audio to the amplifier and controls the AC power while monitoring key amplifier conditions such as clipping and heat sink temperature. The audio output of the amplifier is returned to the DCP via the CobraNet connection so that it can be listened to via the DCP's built-in monitor speaker.

When mounted behind the screen with the amplifiers, the DXP eliminates the need for long and expensive speaker cables and conduit. Inexpensive Ethernet cable and a local AC power source can greatly reduce the cost of system wiring. The DXP also enables "boothless" cinema, since the entire sound system need not be located in a single, large rack. Four relay outputs operate via DCP control presets to allow external devices like masking and curtain motors and dimmers to be operated via the DCP network and mobile control applications.

Total System Flexibility

For very large systems or systems with surround and screen amps in separate locations from the DCP, up to two DXP's may be connected to each DCP. The DCP/DXP combination is ideal for multi-channel audio systems with up to 16 inputs.

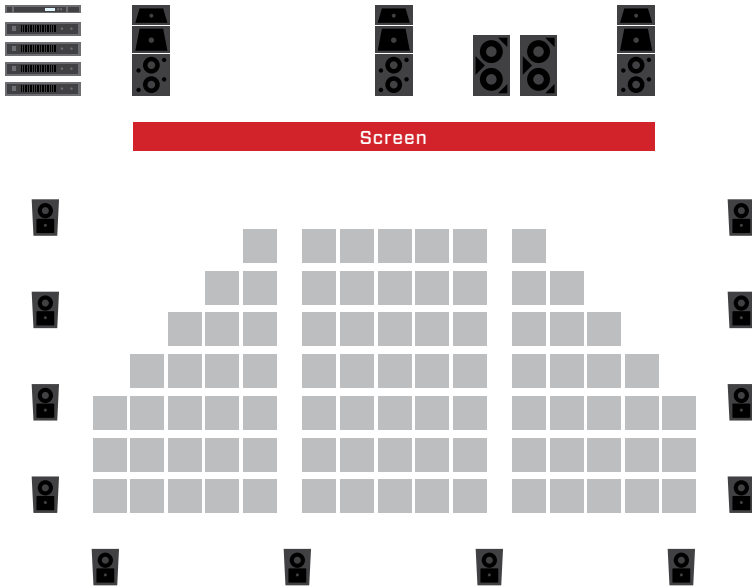
Moving signals via CobraNet™ over standard Cat-5 cable and Ethernet hardware potentially replaces hundreds of audio cables, helping to vastly reduce installation, labor and material costs. It also improves performance by eliminating the losses inherent in long cable runs.

- Supports remote mounted amplifiers with the DCP 200 and 300
- Replaces Basis™ processors with a more powerful and cost-effective solution
- Provides advanced loudspeaker processing as well as a common user interface with the DCP
- Dual power supplies provide continuous operation in the event of primary supply failure
- Full DataPort monitoring of the remote amps is provided via the CobraNet audio and data link to the DCP
- Microphone/line input for lectern mic, or non-sync devices such as CD/MP3 player
- Relay outputs can use DCP control presets to trigger events like masking, curtain, or dimmer changes
- Can be controlled via a Wi-Fi network with Android™ and iOS devices using DCPCConnect, a free download from the app store





DXP
Digital Expansion
Processor



■ = 4 Seat Block

Rack Room

Processing

1 x DXP



Amplifiers

DCA 4-Ch Amplifier



Control Location

Processing

1 x DCP 200



In Theatre/Behind Screen

Processing

1 x DXP



Amplifiers

DCA 2-Ch Amplifiers



Screen Channels and Subs

3 x SC-323C



2 x SB-521B



Surrounds

SR-1020



DCM Series Monitors

DCM 10D*DCM 30D*

QSC Digital Cinema Monitors integrate DSP crossovers, booth monitoring, and load fault detection into a single unit that provides exceptional performance and control while interfacing seamlessly with existing legacy cinema processors. By combining booth monitor and crossovers, the DCM Series monitors simplify system wiring and configuration, boosting your bottom line with faster setup and increased operational efficiency.

The DCM Series Monitors take full advantage of digital technology for both processing and control. Digital Signal Processing delivers the best possible sound quality and high dynamic range to outperform traditional analog crossovers. And the companion DCM Manager software lets you easily build and deploy configurations that combine all elements of system setup into a savable preset. Designed for use with Digital Cinema Amplifiers (DCA), DCM is the perfect choice for legacy film-only installations or for working with an existing cinema processor.



Audio Capabilities

- Quad-, tri-, bi-amp, or passive operation (varies by model)
- Three to five screen channels (varies by model)
- DSP presets to instantly optimize DCS speaker systems
- Precise adjustment of crossover frequencies, parametric EQ, polarity, and gain for each speaker in your system
- Switch-in alternate EQ settings for alternative content

DCM Manager software

- Easy intuitive system setup
- Configure parameter settings, routing, crossover filters, gains, delays, diagnostics, and monitoring
- Save configurations for backup and reuse
- Real-time software control from PC via USB

Connections

- Analog or AES/EBU inputs
- DataPort amp connections (no barrier strips or XLRs required)
- Auxiliary outputs (user-defined)

Compatibility

- Support for all current cinema sound processor formats
- Support for Dolby® Digital Surround EX and DTS-ES
- THX® approved

Reliability

- Load and amplifier fault monitoring reports opens and shorts for each channel
- Active emergency bypass crossover provides fail-safe operation

	DCM 10D	DCM 30D
Screen Channels	3	5
Passive Crossover	yes	no
2-way Crossover	yes	yes
3-way Crossover	no	yes
4-way Crossover	no	yes



Q-SYS™

The world's most powerful network audio solution

Q-Sys is the world's most powerful yet simple network audio solution available... period. Entirely scalable, Q-Sys can handle any cinema, from small cinemas and post-production facilities, to the largest theatres with massive immersive sound systems.

The Q-Sys Core runs QSC-developed DSP algorithms under a customized Linux operating system running on Intel® microprocessors and motherboards. This Intel hardware already meets IT industry-best reliability standards and is used in many of the world's most mission-critical projects.

Integrated Cores

The Core 250i/500i Integrated Cores can accommodate up to eight internal Q-Sys input and/or output cards for a total onboard channel capacity of 32 channels (more if optional AES or CobraNet™ cards are used). Channel count may be further expanded by the addition of Q-Sys I/O Frames and other peripheral devices.

Q-Sys Cores are compatible with all channel-based and object-based immersive sound formats. A direct network connection via Ethernet from the Dolby® CP850 eliminates the need for D-A converters and allows for easy integration of the Q-Sys Core in a Dolby Atmos® equipped auditorium, especially when using our DPA-Q Series amplifiers. And, Q-Sys Cores even render DTS MDA (multi-dimensional audio) object-based audio.

- Layer 3 networking ensures Q-Sys can run on the backbone of existing IT infrastructure eliminating the need for a dedicated audio network.
- Simple flexible architecture — Centralized processing allows the routing of any input to any output without variable-latency signal paths.
- Hardware-independent processing — advances in processing power are driven by advances in the global IT industry.
- Fewer potential failure points — digitally wired and routed signal paths within the processing Core maximizes system reliability and minimizes the number of required interconnections.
- System redundancy — all Cores can serve as a backup and upon sensing failure of the primary Core immediately assume all system functions ensuring fail-safe redundancy dependability for mission-critical applications.
- Control and interface to external devices using TCP/IP, GPIO, and RS-232.





Integrated Core 500i



Q-Sys Peripherals

Five different Input/Output (I/O) card options are available for the Q-Sys Core. The I/O Frame provides additional points of connection for large immersive sound applications when not using our DPA-Q network amplifiers.



Mic/Line Analog Input Card



Analog Line Output Card



AES-3 Digital Input/Output Card



CobraNet™ Digital Input/Output Card



DataPort Output Card



I/O Frame

The I/O-22 provides two mic/line inputs and two line outputs. Designed for use when audio sources and destinations are physically spread out, the I/O-22 is useful for remote booth monitoring.



I/O-22





100%
100%
100%
100%
100%
100%
100%
100%
100%
100%



100%
100%
100%
100%
100%
100%
100%
100%
100%
100%



CH1 CLIP CH2

18 22
14 20dB
8 20dB
-00 32

SIGNAL
POWER

BRIDGE PARALLEL

18 22
14 20dB
8 20dB
-00 32

CH1 CLIP CH2

18 22
14 20dB
8 20dB
-00 32

SIGNAL
POWER

BRIDGE PARALLEL

Cinema Amplifiers



DPA Series

The QSC DPA Series represents a revolutionary advancement in amplifier technology and innovation. Each model provides efficient, robust and extraordinarily high fidelity power to drive multiple channels and configurations of loudspeakers while simultaneously deploying sophisticated digital processing – all with optimal energy and rack space efficiency. The DPA Series consists of three powerful, four-channel amplifiers, each with onboard DSP, and the capability to configure and combine channels in various ways to drive a wide range of loudspeaker systems. These amplifiers not only provide the power and processing to make your cinema sound system perform better, they offer outstanding efficiency ensuring that energy costs will be kept to a minimum over the life of the installation.

- Flexible Amplifier Summing Technology™ (FAST) drives most any loudspeaker system or configuration by distributing total amplifier power across one, two, three or all four channels.
- Full function onboard loudspeaker processing DSP with Crossover and Parametric EQ Filters, Limiting and Alignment Delay eliminates the need for outboard loudspeaker processors.
- Universal switchmode power supply with power factor correction for highest efficiency, improved audio performance, and low heat dissipation.
- Preset Wizard simplifies amplifier setup, providing system design tools and loudspeaker selection from a list of speakers.
- Powerful digital processing maximizes the sonic performance of QSC loudspeakers.
- 20 Factory Preset configurations that can be modified and stored in the 50 User Presets.
- Integrated front panel with channel Select and Mute buttons, Input and Output LED Metering, 400x240 LCD, intuitive navigation buttons, LED power button and indicator, and cast aluminum handles.
- GPIO for additional functionality including a heartbeat output for Life-Safety supervision.
- Four input Euroblock connectors, and four Euroblock touch-proof speaker output connectors.
- Each model occupies only two rack spaces (3.5"/89mm).





DPA Series
Processing Amplifiers

	DPA4.2		DPA4.3		DPA4.5	
4 Ch	Burst	Continuous	Burst	Continuous	Burst	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	Burst	Continuous	Burst	Continuous	Burst	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	Burst	Continuous	Burst	Continuous	Burst	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	4200 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

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



DPA-Q Network Amplifiers

Designed specifically for use with Q-Sys, DPA-Q amplifiers marry the exciting new amp technology found in the DPA platform with the powerful Q-Sys network processing and control system to create the perfect solution for cinema applications.

The DPA-Q line includes three models (DPA 4.2Q, DPA 4.3Q & DPA 4.5Q) capable of delivering robust, high-fidelity power to drive a wide range of loudspeaker configurations. By simply connecting the amplifiers via standard layer 3 Ethernet, the Q-Sys Core can route digital 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.

*DPA-Q Series
Network Amplifiers*



- 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 DPA-Q amps seamlessly integrate with Q-Sys providing audio streaming directly to and from the amplifiers.
- Allows an all-digital signal path from Dolby® CP850 Atmos® Processor to the DPA-Q amplifier.
- Version 4.0 of Q-Sys designer includes the DPA-Q amps in the inventory and provides complete system-wide design, as well as control and monitoring capability.
- GPIO ports on Euroblock connectors enable additional functionality utilizing the intuitive and powerful Q-Sys control engine complete with logic functions and LUA scripting.
- Input Euroblock connectors and touch-proof Euroblock loudspeaker connectors.
- Universal switchmode power supply with power factor correction 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.

	DPA4.2Q		DPA4.3Q		DPA4.5Q	
4 Ch	Burst	Continuous	Burst	Continuous	Burst	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	Burst	Continuous	Burst	Continuous	Burst	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	Burst	Continuous	Burst	Continuous	Burst	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	4200 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

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



DCA Series



DCA 2 Channel Amplifiers



DCA 4 Channel Amplifiers



Watts per channel, 1 kHz, 1% THD

Impedance	Number of Channels	8Ω	4Ω	2Ω
DCA 1222	2	215	375	600
DCA 1622	2	350	600	800
DCA 2422	2	475	825	1200
DCA 3022	2	625	1050	1500
DCA 3422	2	800	1250	1700
DCA 1644	4	250 ¹	400 ³	-
DCA 1824	4	170 ¹	250 ²	450

¹ 20 Hz to 20 kHz, 0.05% THD

² 20 Hz to 20 kHz, 0.1% THD

³ 1 kHz, 0.1% THD

Built on a rugged tour-grade chassis, DCA 2-channel and 4-channel amps deliver heavyweight power in a light 2RU package. All models are equipped with our innovative DataPort interface, which makes hook-up fast, enables control and monitoring via QSC processors, and supports a range of useful accessories. All are safeguarded by protective circuitry that keeps them going strong over the long haul.

Using a standard VGA-style connector that simplifies wiring and speeds installation, the DCA DataPort interface provides single-cable integration with DCP, DXP, DCM and Q-Sys processors. Creating a smart, centrally controlled system that goes beyond simple audio connections, DataPort enables DSP crossovers, speaker-specific EQ, and monitoring and control of amplifier and loudspeaker functions. DataPort also accepts and powers analog accessory devices (XC-3, SF-3, and LF-3) that expand the capabilities of both DCA and ISA 2-channel amplifiers.

A single QSC DataPort connection includes two channels of audio, output voltage monitoring (VMON), current monitoring (IMON), clip/protect monitoring, and thermal monitoring. DataPort also enables AC standby control and provides a 15 volt DC power supply for rear-panel accessories.

- QSC PowerLight™ boosts reliability by cutting waste heat. Ultra-fast charging of supply rails results in tighter bass and clean, transparent highs.
- Extensive protection circuitry guards against failures such as DC, infrasonic, thermal overload, and short circuits.
- Active Inrush Limiting lets you turn amps on and off safely without expensive AC power sequencers.



ISA Series

Built to the same quality and reliability standards as the DCA Series, QSC's ISA Series amplifiers are ideal for cinema installations where the budget is tighter but audio performance can't be compromised. Available in a range of two-channel 3RU models that handle 2Ω loads with ease, ISA Series amps offer solid QSC performance and features at a very attractive price point.

- Selectable high-pass filters protect against driver over-excursion.
- Independent, defeatable clip limiters reduce distortion and protect speakers.
- Extensive internal protection guards against damage from DC, infrasonic, thermal overload, and short circuits.
- Audio monitoring via DataPort V2 lets you hear each channel's in and out. (DataPort V2 does not support AC standby or the amplifier and loudspeaker status and control features of DCP, DXP, or DCM products.)
- Analog accessory devices (XC-3, SF-3, and LF-3) connect via DataPort to expand amplifier capabilities.
- Rear-panel gain controls with 2 dB detents enable repeatable settings.
- Connectors: XLR and 3-pin Euroblock for input; barrier strip for output.



ISA Series Amplifiers



Watts per channel

Impedance	8Ω (50 Hz to 16 kHz, 0.5% THD)	4Ω (20 Hz to 20 kHz, 0.1% THD)	2Ω (1 kHz, 1% THD)
ISA 280	185	280	430
ISA 450	260	425	700
ISA 750	450	650	1200
ISA 1350	800	1300	2000
ISA 300Ti	185	280	430
ISA 500Ti	260	425	700
ISA 800Ti	450	650	1200



Amplifier Accessories

QSC amplifier accessories easily mount to the rear panel of two-channel DCA and ISA amps to expand amplifier capabilities for specific applications while conserving cost and rack space.

XC-3 2-way Crossover



XC-3 2-way Crossover — An active, 2-way crossover module that mounts via DataPort, the XC-3 features 4th-order filters with low frequencies routed to amp channel 1 and highs to channel 2. A 3-way crossover can be implemented using the XC-3 with the LF-3.

SF-3 Subwoofer Filter



SF-3 Subwoofer Filter — The SF-3 is a subwoofer signal processor that mounts via DataPort and extends the response of QSC subwoofer enclosures, including the SB-5118, SB-5218, SB-7118, SB-7218 and SB-15121.

LF-3 Low-Frequency Filter



LF-3 Low-frequency Filter — Mounted via DataPort, the LF-3 provides two discrete channels of 4th-order low-pass filters. Each channel filters the low-frequency output from one XC-3, enabling one channel of the LF-3's host amp to power the low end of an active 3-way system. In typical screen channel use, three amps with XC-3s could handle LCR mids and highs, while two amps with LF-3s could handle LCR lows (with one channel to spare).







Cinema Loudspeakers



The World's Most Complete Cinema Loudspeaker Line

SC-433C

QSC offers the industry's most varied and comprehensive line of cinema loudspeakers. While each of our loudspeakers is designed to handle a specific customer need, all are conceived and constructed to the same high standards. Not every room can justify a top-end system, but every audience deserves loudspeakers that fully and accurately reproduce the soundtrack crafted by the filmmakers. And that's the only kind of loudspeakers we make.

The Digital Cinema Series (DCS) includes 2-, 3-, and 4-way screen channel loudspeakers as well as surrounds and subwoofers. It's a diverse collection, but every model embodies QSC attention to detail in design and construction. The result is the smartest loudspeaker line in cinema, starting with a host of innovations built into our screen channel lines:

- Easy pan-tilt assembly — The pan-tilt mechanism for mid-high components makes quick work of assembling and aligning screen channel systems. The assembly is labeled for repeatability and features a notched tilt adjustment to maintain vertical alignment.
- CineSight™ speaker aiming — An exclusive integrated sight that works even after the screen has been installed, CineSight allows fast, accurate aiming without having to remove the driver.
- Maximum-intelligibility midrange — The broad-range mid-frequency driver in 3- and 4-way DCS systems keeps key speech frequencies together for superb dialog intelligibility.
- Convergent mid-high coverage — A built-in tilt to the high-frequency horns on 3- and 4-way systems provides more even convergence with the midrange pattern, ensuring optimum seating-area coverage.
- Speaker-optimized EQ presets — Model-specific DSP presets in our DCP, DXP, DCM, BASIS™ and Q-Sys™ processors optimize our loudspeakers for great performance right out of the box.
- Driver protection and equalization — The driver protection and equalization network in our screen channel systems improves reliability by protecting HF drivers against damaging DC or low frequency signals.



QSC design innovations aren't limited to our screen channel loudspeakers. We also offer industry-leading subwoofers and surround loudspeakers:

- Extended low-frequency response — DCS subwoofers use B6 alignment for improved performance in the critical 20 to 40 Hz region. With boxes tuned to a lower frequency and filtering applied by QSC processors, our subs deliver the high-impact lows that today's audiences love.
- Big speaker, huge sound — When 18-inch woofers aren't quite enough, QSC has the ultra bottom-end covered with the awe-inspiring 21-inch SB-15121.
- Versatile surround line — From the smallest to the largest rooms, QSC has you covered. Choosing the right surround speaker is easy with QSC.
- Hands-free mounting — A trapezoidal bracket design holds surround speakers in place during lock-screw insertion, allowing surround mounting by a single installer. Down-angles of both 15° and 23° are supported.

*SR-1030**SB-7218*

Screen Channel Loudspeakers

DCS Screen channel 2-way systems

Available in both passive and bi-amplified models, QSC 2-way DCS screen channel loudspeaker systems prove that limited budgets need not mean limited quality. With solid cabinet construction and smart horn design, our 2-way

2-Way Passive



SC-1120

SC-1150

SC-312XC

SC-322XC

	SC-1120	SC-1150	SC-312XC	SC-322XC
Low Component	LF: 12" (305 mm) woofer, 2.5" voice coil	LF: 15 in. (380 mm) woofer	LF-3115 (page 48)	LF-3215 (page 48)
High Component	HF: Compression driver with 1.75" (44 mm) voice coil	HF: Compression driver with 1.75" (44 mm) voice coil	HF-75Cx1 (page 51)	HF-75Cx2 (page 51)
Frequency Range (-6dB)	48 Hz to 19 kHz	43 Hz to 19 kHz	32 Hz - 16 kHz	32 Hz - 16 kHz
Nominal Coverage	90 degrees Axisymmetric	90 degrees Axisymmetric	90° horizontal x +15° to -35° vertical	90° horizontal x +15° to -35° vertical
Impedance	8Ω	8Ω	8Ω	4Ω
Rated Noise Power ¹	300 W RMS	400 W RMS	150 W RMS	300 W RMS
Sensitivity ²	95.5 dB	96 dB	95 dB	97.5 dB
System Dimensions (HWD) inches	27.2 x 19.5 x 11.7	27.2 x 30 x 11.7	34.59 x 30 x 20.25	51.71 x 30 x 20.25
System Dimensions (HWD) mm	690 x 497 x 297	690 x 762 x 297	876.6 x 762 x 514.4	1313.5 x 762 x 514.4

¹ 8 hours of 6 dB crest factor IEC 268 noise spectrum / 2 hours of 6 dB crest factor pink noise, AES method.

² Based on nominal impedance, measured in half space 1W @ 1m



systems deliver exceptional clarity and coverage coupled with extended low-frequency response. Our seven models vary by power handling and number of LF drivers, so you can select the 2-way system that's just right for your small to mid-size room.

2-Way Bi-amp



SC-412C



SC-322C



SC-422C

Low Component	LF-4115 (page 48)	LF-3215 (page 48)	LF-4215 (page 49)
High Component	HF-75C (page 51)	HF-75C (page 51)	HF-75C (page 51)
Frequency Range (-6dB)	32 Hz - 16 kHz	32 Hz - 16 kHz	32 Hz - 16 kHz
Nominal Coverage	90° horizontal x +20° to -35° vertical	90° horizontal x +20° to -35° vertical	90° horizontal x +20° to -35° vertical
Crossover Frequency (Hz) 24 dB/octave	700	700	700
System Dimensions (HWD) inches	34.59 x 30 x 20.25	51.71 x 30 x 20.25	51.71 x 30 x 20.25
System Dimensions (HWD) mm	876.6 x 762 x 514.4	1313.5 x 762 x 514.4	1313.5 x 762 x 514.4



DCS Screen channel 3-way systems

DCS 3-way screen channel systems are designed for impressive power and fidelity in bi- or tri-amp operation. A short vertical profile provides excellent stereo imaging and dialog localization. The SC-423C-F provides the same acoustical performance as the SC-423C screen channel loudspeaker in a safe



3-Way Bi- or Tri-amp¹

	SC-2150 ¹	SC-413C	SC-323C	SC-423C
Low Component	2150-LF (page 48)	LF-4115 (page 48)	LF-3215 (page 48)	LF-4215 (page 49)
High Component	2150-HF (page 50)	MH-1075C (page 50)	MH-1075C (page 50)	MH-1075C (page 50)
Frequency Range (-6dB)	38 Hz - 20 kHz	32 Hz - 16 kHz	32 Hz - 16 kHz	32 Hz - 16 kHz
Nominal Coverage	90° horizontal x 40° vertical	90° horizontal x +20° to -30° vertical	90° horizontal x +20° to -30° vertical	90° horizontal x +20° to -30° vertical
Crossover Frequency (Hz) 24 dB/octave	500/2200	250/1700	250/1700	250/1700
System Dimensions (HWD) inches	55.6 x 30 x 14.5	57.43 x 30 x 20.25	74.55 x 30 x 20.25	74.55 x 30 x 20.25
System Dimensions (HWD) mm	1412 x 762 x 368	1458.7 x 762 x 514.4	1893.6 x 762 x 514.4	1893.6 x 762 x 514.4

¹ SC-2150 is passive or bi-amp only; not designed for tri-amp operation.



and easy to suspend “flying” version, ideal for rigging above the screen or as a point source surround speaker. With eight models, our 3-way systems offers high performance for the full spectrum of auditorium sizes.



Suspension hardware not included

3-Way Bi- or Tri-amp

SC-423C-F

SC-423C-8

SC-433C

SC-443C

Low Component	LF-4215-F (page 49)	LF-4215-8 (page 49)	LF-4315 (page 49)	LF-4215 x 2 (page 49)
High Component	MH-1075C-F (page 50)	MH-1075C (page 50)	MH-1075C (page 50)	MH-1075C (page 50)
Frequency Range (-6dB)	32 Hz - 16 kHz	32 Hz - 16 kHz	32 Hz - 16 kHz	32 Hz - 16 kHz
Nominal Coverage	90° horizontal x +20° to -30° vertical	90° horizontal x +20° to -30° vertical	90° horizontal x +20° to -30° vertical	90° horizontal x +20° to -30° vertical
Crossover Frequency (Hz) 24 dB/octave	250/1700	250/1700	250/1700	250/1700
System Dimensions (HWD) inches	V: 80 x 31.5 x 19 H: 40 x 63 x 19	74.55 x 30 x 20.25	92 x 30 x 20.25	110.3 x 30 x 20.25
System Dimensions (HWD) mm	V: 2032 x 800 x 483 H: 1016 x 1600 x 483	1893.6 x 762 x 514.4	2337 x 762 x 514.4	2801.7 x 762 x 514.4



DCS Screen channel 4-way systems

When only a peak cinema experience will do, QSC 4-way screen channel systems provide the depth, brilliance, and intelligibility that will bring a great soundtrack to life. Designed for tri- or quad-amp operation, our 4-way systems feature the MHV-1090 HF/VHF driver, a unique 2-way design with concentric low-mass diaphragms that are acoustically centered for maximum wavefront coherence.

4-Way Tri- or Quad-amp



	SC-414	SC-324	SC-424	SC-424-8
Low Component	LF-4115 (page 48)	LF-3215 (page 48)	LF-4215 (page 49)	LF-4215-8 (page 49)
High Component	MHV-1090 (page 50)	MHV-1090 (page 50)	MHV-1090 (page 50)	MHV-1090 (page 50)
Frequency Range at -6dB (Hz)	33 Hz - 20 kHz	33 Hz - 20 kHz	33 Hz - 20 kHz	33 Hz - 20 kHz
Crossover Frequencies (Hz), 24 dB/octave	250, 1700, 6K	250, 1700, 6K	250, 1700, 6K	250, 1700, 6K
Nominal Coverage	90° H x +20° to -30° V	90° H x +20° to -30° V	90° H x +20° to -30° V	90° H x +20° to -30° V
System Dimensions (HWD) inches	57.43 x 30 x 20.25	74.55 x 30 x 20.25	74.55 x 30 x 20.25	74.55 x 30 x 20.25
System Dimensions (HWD) mm	1458.7 x 762 x 514.4	1412 x 762 x 368	1893.6 x 762 x 514.4	1893.6 x 762 x 514.4



With the VHF driver handling 6 kHz and above, the HF driver is optimized for the 1.7 to 6 kHz range - critical for dialog intelligibility. The SC-424-8F provides the same acoustical performance as the SC-424-8 screen channel loudspeaker in a safe and easy to suspend “flying” version, ideal for rigging above the screen or as a point source surround speaker.



Suspension hardware not included

4-Way Tri- or Quad-amp

	SC-424-8F ¹	SC-434	SC-444
Low Component	LF-4215-8F (page 49)	LF-4315 (page 49)	LF-4215 x 2 (page 49)
High Component	MHV-1090F (page 50)	MHV-1090 (page 50)	MHV-1090 (page 50)
Frequency Range at -6dB (Hz)	33 Hz - 22 kHz	33 Hz - 20 kHz	33 Hz - 20 kHz
Crossover Frequencies (Hz), 24 dB/octave	250, 1700, 6K	250, 1700, 6K	250, 1700, 6K
Nominal Coverage	90° H x +20° to -30° V	90° H x +20° to -30° V	90° H x +20° to -30° V
System Dimensions (HWD) inches	V: 80 x 31.5 x 19 H: 40 x 63 x 19	92 x 30 x 20.25	110.3 x 30 x 20.25
System Dimensions (HWD) mm	V: 2032 x 800 x 483 H: 1016 x 1600 x 483	2337 x 762 x 514.4	2801.7 x 762 x 514.4

¹ Tri-amp only; not designed for quad-amp operation.



DCS Screen channel LF enclosures

Designed not only to deliver, but to thrive on today's pushed-to-the-max soundtracks, QSC low-frequency enclosures bring out the full richness of screen channel sound. Unlike repurposed rock and roll PA cabinets, our LF components are built from the ground up with cinema-specific details that speed installation, like offset terminal cups and pre-installed rubber feet. We also enhance

	LF-3115	LF-4115	2150-LF	LF-3215
System Models	2-way: SC-312XC (page 42)	2-way: SC-412C (page 43) 3-way: SC-413C (page 44) 4-way: SC-414 (page 46)	3-way: SC-2150 (page 44)	2-way: SC-322XC (page 42) SC-322C (page 43) 3-way: SC-323C (page 44) 4-way: SC-324 (page 46)
Drivers	1	1	2	2
Driver Information	15" (381 mm) high-efficiency, extended bass woofer, 3" copper voice coil	15" (381 mm) high-efficiency, extended bass woofer, 4" copper voice coil	15" (381 mm) high-efficiency, extended bass woofer, 3" copper voice coil	15" (381 mm) high-efficiency, extended bass woofer, 3" copper voice coil
Impedance	8Ω	4Ω	4Ω	4Ω
Rated Noise Power ¹	400 W RMS	500 W RMS	500 W RMS ³	800 W RMS
Sensitivity ²	95.5 dB	95.5 dB	100 dB	98.5 dB
Dimensions (HWD) inches	18.63 x 30 x 20.25	18.63 x 30 x 20.25	38.3 x 30 x 14.5	35.75 x 30 x 20.25
Dimensions (HWD) mm	473.2 x 762 x 514.4	473.2 x 762 x 514.4	972 x 762 x 368	908.1 x 762 x 514.4

¹ 2 hours of 6 dB crest factor pink noise, AES method.

² Based on nominal impedance, measured in half space 1 W @ 1 m.

³ AES2-1984, 2 hrs, Power = V_{rms}^2/Z_{nom}

LF enclosures connect with barrier strip screw terminals that accept up to #10 AWG stranded wire except for LF-4215-8F, which uses Neutrik Speakon™ NL4.



performance with smart design, like using tight driver spacing in our multi-driver boxes to improve coupling and widen coverage angles. LF enclosures are the foundation of full, clear screen channel sound, and nobody builds better screen channel enclosures than QSC.

	LF-4215	LF-4215-8	LF-4215-F	LF-4215-8F	LF-4315	LF-4215 x 2
System Models	2-way: SC-422C (page 43) 3-way: SC-423C (page 44) 4-way: SC-424 (page 46)	3-way: SC-423C-8 (page 45) 4-way: SC-424-8 (page 46)	3-way: SC-423C-F (page 45)	4-way: SC-424-8F (page 47)	3-way: SC-433C (page 45) 4-way: SC-434 (page 47)	3-way: SC-443C (page 45) 4-way: SC-444 (page 47)
Drivers	2	2	2	2	3	4
Driver Information	15" (381 mm) high-efficiency, extended bass woofer, 4" copper voice coil	15" (381 mm) high-efficiency, extended bass woofer, 4" copper voice coil	15" (381 mm) high-efficiency, extended bass woofer, 4" copper voice coil	15" (381 mm) high-efficiency, extended bass woofer, 4" copper voice coil	15" (381 mm) high-efficiency, extended bass woofer, 4" copper voice coil	15" (381 mm) high-efficiency, extended bass woofer, 4" copper voice coil
Impedance	4Ω	8Ω	4Ω	8Ω	5.5Ω	4Ω
Rated Noise Power ¹	1000 W RMS	1000 W RMS	1000 W RMS	1000 W RMS	1500 W RMS	2000 W RMS
Sensitivity ²	99.5 dB	99.5 dB	99.5 dB	99.5 dB	99.5 dB	102.5 dB
Dimensions (HWD) inches	35.75 x 30 x 20.25	35.75 x 30 x 20.25	40 x 31.5 x 19	40 x 31.5 x 19	53 x 30 x 20.25	72 x 30 x 20.25
	908.1 x 762 x 514.4	908.1 x 762 x 514.4	1016 x 800.1 x 482.6	1016 x 800.1 x 482.6	1346 x 762 x 514.4	1820 x 762 x 514.4



DCS Screen channel mid-high components

QSC mid-high components are all about intelligibility. The midrange element — a 10-inch, high-output, horn-loaded cone driver — places nearly the entire dialog range on a single element, helping audiences hear every word clearly. For high frequencies, our 3-way systems feature a high-performance titanium diaphragm compression driver. In 4-way systems, our proprietary HF/VHF driver uses coaxial diaphragms to provide superior fidelity. And because all systems include a passive crossover, we give you plenty of choices for bi-/tri-amp or tri-/quad-amp operation.

	2150-HF ¹	MH-1075C	MH-1075C-F	MHV-1090	MHV-1090F ²
Loudspeaker Models	3-way (shallow): SC-2150 (page 44)	3-way: (page 44-45) SC-413C, SC-323C, SC-423C, SC-423C-8, SC-433C, SC-443C	3-way (flying): SC-423C-F (page 45)	4-way: (page 46-47), SC-324, SC-414, SC-424, SC-424-8, SC-434, SC-444	4-way (flying): SC-424-8F (page 47)
Impedance (Bi-Amp mode)	8Ω	8Ω	8Ω (BI-AMP MODE)	8Ω	8Ω (TRI-AMP MODE)
Rated Noise Power ³	80 W RMS ⁴	Bi-amp: 350 W RMS Tri-amp: MF 275 W RMS HF 75 W RMS	Bi-amp: 350 W RMS	Tri-amp: MF 275 W RMS HF/VHF 230 W RMS Quad-amp: MF 275 W RMS HF 150 W RMS VHF 80 W RMS ²	Tri-amp: MF 275 W RMS HF/VHF 230 W RMS
Sensitivity ⁵	102 dB	Bi-amp: 105 dB Tri-amp: MF- 105dB HF- 107.5dB	Bi-amp: 105 dB Tri-amp: MF- 105dB HF- 107.5dB	Tri-amp: MF 105 dB, HF/VHF 110 dB, Quad-amp: MF 105 dB, HF 110 dB, VHF 110 dB	Tri-amp: MF 105 dB, HF/VHF 110 dB
Driver Information	6.5" high-efficiency mid range, 1" (25.4 mm) exit, 1.4" (35.5 mm) diaphragm compression driver	10" high-efficiency midrange, 1.5" (38 mm) exit, 3" (75 mm) titanium diaphragm compression driver	10" high-efficiency midrange, 1.5" (38 mm) exit, 3" (75 mm) titanium diaphragm compression driver	MF: 10" high-efficiency, horn-loaded cone HF/VHF: coaxial neodymium compression driver with 3.5" (90 mm) HF diaphragm and 1.75" (44 mm) VHF diaphragm	MF: 10" high-efficiency, horn-loaded cone HF/VHF: coaxial neodymium compression driver with 3.5" (90 mm) HF voice coil and 1.75" (44 mm) VHF voice coil
Dimensions (HWD) inches	17.3 x 16.3 x 6.8	38.8 x 30 x 20.25	40 x 31.5 x 19	38.8 x 30 x 20.25	40 x 31.5 x 19
Dimensions (HWD) mm	440 x 414 x 173	985.5 x 762 x 514.4	1016 x 800.1 x 482.6	985.5 x 762 x 514.4	1016 x 800.1 x 482.6

¹ Not designed for tri-amp operation.

² Not designed for quad-amp operation.

³ 2 hours of 6 dB crest factor pink noise, AES method.

⁴ Pink noise, 500 Hz - 20 kHz, 6 dB crest factor, 2 hrs, Power = V_{rms}^2/Z_{nom}

⁵ Based on nominal impedance, measured in half space 1 W @ 1 m.

MH and MHV systems connect with barrier strip screw terminals that accept up to #10 stranded wire except the 2150-HF and MHV-1090F, which use Neutrik Speakon™ NL4.



DCS Screen channel HF components

DCS high-frequency components are an ideal match for the LF enclosures in our bi-amped and passive 2-way screen channel systems. The HF components include durable titanium diaphragm compression drivers and intelligent features that allow easy setup and long service life. Power limiting circuitry protects the drivers from damaging peaks. Built for quality, DCS HF components make our 2-way systems an unbeatable value.

	HF-75Cx1	HF-75Cx2	HF-75C
System Type	2-way passive	2-way passive	2-way active
Loudspeaker Models (page 37)	SC-312XC	SC-322XC	SC-412C SC-422C
Driver Information	1.5" (38 mm) exit, 3" (75 mm) titanium diaphragm compression driver	1.5" (38 mm) exit, 3" (75 mm) titanium diaphragm compression driver	1.5" (38 mm) exit, 3" (75 mm) titanium diaphragm compression driver
Impedance	see SC-312XC	see SC-322XC	8Ω
Rated Noise Power ¹	see SC-312XC	see SC-322XC	75 W RMS
Sensitivity ²	see SC-312XC	see SC-322XC	108 dB

¹ Continuous IEC specified test signal, 2 hours unless otherwise stated.

² Based on nominal impedance, measured in full space. 1 W @ 1 m.

Specifications common to all HF components

Connectors	Dimensions (HWD) inches	Dimensions (HWD) mm	Weight
Barrier strip screw terminals accept up to #10 AWG stranded wire	15.96 x 30 x 20.25	405.4 x 762 x 514.4	36 lb / 16.3 kg



Surround Loudspeakers

Surround channels draw the audience into the action by creating an immersive multidimensional soundscape. It takes power, fidelity, and coverage to accurately create that experience in an auditorium. QSC surround loudspeakers offer outstanding audio performance and styling to look as good as they sound. With three series to choose from, QSC offers the industry's widest selection of surround loudspeakers.

SR Series

Our SR Series surround loudspeakers are made from quality MDF and plywood enclosures that deliver extended bass response over wide coverage areas. And high-output drivers project cleanly to every seat. The uniform power response of these loudspeakers is a result of DMT™ (Directivity Matched Transition), a design approach that matches LF and HF coverage in the crossover region. Pre-installed speaker-side hardware allows fast single-installer mounting, and brackets support down-angles of either 15° (standard) or 23° (optional).





SR-8101



SR-8200



SR-1020



SR-1030



SR-1290

System Type	2-way	2-way	2-way	2-way	Coaxial 2-way
Frequency Range ¹ at -10 dB (Hz)	54 Hz - 20 kHz	52 Hz - 20 kHz	50 Hz - 20 kHz	56 Hz - 20 kHz	50 Hz - 20 kHz
Nominal Coverage ²	130° horizontal x 110° vertical (averaged from 1 kHz to 8 kHz, -6 dB)	90° H x 90° V	90° H x 90° V	90° H x 90° V	90° H x 90° V
Impedance	8Ω nominal	8Ω nominal	8Ω nominal	8Ω nominal	4Ω nominal
Rated Noise Power ³	125 W	200 W	300 W	400 W	400 W
Sensitivity ⁴	91 dB SPL	94 dB	94 dB	95.5 dB	96 dB
Driver Information	8" low-frequency transducer 1" soft dome tweeter	8" long throw low- frequency transducer, 1.4" titanium diaphragm compression driver on an Axisymmetric horn	10" low-frequency transducer, 1.4" titanium diaphragm compression driver on an Axisymmetric horn	10" long throw low- frequency transducer, 1.75" titanium diaphragm compression driver on an Axisymmetric horn	12" low-frequency transducer with coaxially-mounted 1.75" compression driver
Dimensions (HWD) inches ⁵	19.5 x 12 x 9.6	19.5 x 14.3 x 9.6	19.5 x 15.8 x 10.2	19.5 x 15.8 x 10.2	20.25 x 15.75 x 12.75
Dimensions (HWD) mm ⁵	495 x 305 x 244	495 x 363 x 244	495 x 401 x 259	495 x 401 x 259	515 x 400 x 325
Weight ⁶	18.6 lb / 8.4 kg	24.5 lb / 11.1 kg	27.1 lb / 12.3 kg	32 lb / 14.5 kg	35 lb / 16 kg
Brackets ⁷	QM-SW, YM-300	QM-SW, QM-BW, YM-360	QM-SW, QM-BW, YM-400	QM-SW, QM-BW, YM-400	QM-SW, QM-BW, YM-400

¹ All frequency ranges specified refer to measured free field response (4 pi).

² Averaged from 1 kHz to 10 kHz, -6 dB.

³ 2 hours of 6 dB crest factor pink noise, AES method.

⁴ Based on nominal impedance, measured in half space 1 W @ 1 m, except SR-1290, measured with 2.0V @ 1 m.

⁵ Dimensions do not include pre-installed speaker mounting bracket.

⁶ Single unit net weight, all units are pair packed except SR-1290 which is single packed.

⁷ QM-BW recommended for rear wall surrounds in steep stadium applications only. Sloped floor and moderate stadium applications should use the QM-SW on side and rear walls. Yoke mounts can be used when adjustable aiming is required.

All specs are subject to change. DCS surrounds connect with barrier strip screw terminals that accept up to #10 AWG stranded wire.



AcousticDesign™ Series

Included with each AcousticDesign Series loudspeaker is our patent-pending X-Mount™ bracket, which enables the loudspeaker to be easily installed and deployed at a variety of angles without slipping over time. The integrated mounting solution includes adjustments for pan, tilt and yaw. Knurled surfaces on the mount's pivot points allows loudspeaker deployment angles to lock in place in 7.5 degree increments ensuring that aiming angles stay fixed and are repeatable.



QSC's AcousticDesign surface mount loudspeakers are professional, two-way, full-range systems for cinema surround applications. The uniform power-response of these loudspeakers is a result of DMT™ (Directivity Matched Transition), a design approach that matches LF and HF coverage in the crossover region. Ease-of-installation is the driving principle behind QSC's next generation of small format, surface mount loudspeakers.

For immersive sound surround formats requiring special aiming practices, AcousticDesign loudspeakers offer extreme flexibility for optimizing surround sound coverage for any cinema surround format. They can easily be mounted to any weight bearing, flat surface allowing the loudspeaker to be deployed in horizontal or vertical orientation. Pan and tilt aiming for front and rear mounted surrounds is a simple adjustment using the included X-Mount™ hardware.



AD-S8T

AD-S10T

AD-S12

Effective frequency range ¹	55 Hz - 20 kHz	50 Hz - 19 kHz	52 Hz - 20 kHz
Rated noise power / voltage ²	200W / 40V	250W / 45V	300W / 50V
Sensitivity ³	90 dB SPL	92 dB SPL	95 dB SPL
Coverage Angle (-6 dB)	105° conical	90° conical	75° conical
Output ⁴ (Peak SPL @ 1M)	121 dB	122 dB	126 dB
Driver Information			
LF	8" weather resistant paper cone woofer, 2" / 51mm voice-coil	10" weather resistant paper cone woofer, 2.5" / 64 mm voice-coil	12" weather resistant paper cone woofer, 3" / 76 mm voice-coil
HF	1" exit / 1.4" voice-coil compression driver	1" exit / 1.4" voice-coil compression driver	1" exit / 1.4" voice-coil compression driver
Rated Impedance	8Ω	8Ω	8Ω
Input Connectors	Euroblock connector with parallel output terminals	Euroblock connector with parallel output terminals	Euroblock connector with parallel output terminals
Enclosure	Painted ABS polymer	Painted ABS polymer	Painted ABS polymer
Net Weight	24.1 lb / 11 kg	31 lb / 15 kg	35 lb / 16 kg

¹ Free-field, -10 dB from on-axis sensitivity

² IEC60268-1 noise signal for 2 Hrs

³ On-Axis, free-field sensitivity, 2.83V, 1 m

⁴ Calculated from rated noise voltage and sensitivity



AcousticPerformance™ Series

New immersive sound surround formats place greater performance demands on surround loudspeakers in terms of frequency response, output capability, and mounting flexibility. QSC's AcousticPerformance series loudspeakers meet these challenges with headroom to spare, especially for larger rooms. The uniform power-response of these loudspeakers is a result of DMT™ (Directivity Matched Transition), a design approach that matches LF and HF coverage in the crossover region. The AcousticPerformance Series loudspeakers are a perfect match for DPA and DPA-Q Series power amplifiers for achieving the high-output, high-impact surround performance required by today's immersive sound applications.



AP-5102



AP-5122



AP-5152

	AP-5102	AP-5122	AP-5152
Frequency Range (-10 dB)	60Hz - 18kHz	48Hz - 18kHz	44Hz - 18kHz
Rated Noise Power/Voltage ¹	450W / 54V	550W / 60V	625W / 65V
Sensitivity	94dB, 1W@1m	95dB, 1W@1m	96dB, 1W@1m
Coverage Angle	105° conical	90° conical	75° conical
Output ¹ (Peak SPL @ 1M)	121 dB	122 dB	123 dB
Driver Information			
LF	254 mm (10-inch) driver with 76 mm (3-inch) VC; 450W / 54V (2 Hrs)	305 mm (12-in) driver with 102 mm (4-in) VC; 450W / 60V (2 Hrs)	381 mm (15-inch) driver with 102 mm (4-inch) VC; 525W / 65V (2 Hrs)
HF	76 mm (3-inch) voice coil, compression driver; 72W / 24V (2 Hrs)	76 mm (3-inch) voice coil, compression driver; 72W / 24V (2 Hrs)	76 mm (3-inch) voice coil, compression driver; 72W / 24V (2 Hrs)
Rated Impedance	8Ω	8Ω	8Ω
Input Connectors	Barrier Strip, NL4 connector	Barrier Strip, NL4 connector	Barrier Strip, NL4 connector
Enclosure	15-ply Baltic birch plywood	15-ply Baltic birch plywood	15-ply Baltic birch plywood
Net Weight	48 lb / 21.7 kg	65 lb / 29.5 kg	80 lb / 36.2 kg

¹ 2 hour rating using IEC60268 noise based on minimum impedance
² Mid-band based on nominal impedance



Surround Low Frequency Extension Loudspeakers

As new cinema audio formats evolve, there is growing demand for full-range sound in the surround channels. Yet for aesthetic reasons, surround loudspeakers are typically designed to be as visually unobtrusive and as small as possible—and deep bass for a large room usually requires a large loudspeaker. Using bass management processing found in many cinema processors, surround channel low-frequency extension (LFE) loudspeakers allow you to locate the cabinet where it's less visually invasive, like on the ceiling or along a rear wall. This relieves the surround loudspeakers from having to produce the very lowest bass frequencies, which allows them to produce greater overall output. Let a QSC Surround LFE Loudspeaker do the sonic heavy lifting.



AD-S112sw



GP118-sw



GP218-sw

	AD-S112sw	GP118-sw	GP218-sw
System Type	12" subwoofer	18" subwoofer	Dual 18" subwoofer
Frequency Range at -10 dB (Hz) ¹	30 Hz – 135 Hz	29 Hz – 800 Hz	27.4 Hz – 1.2 kHz (without processing)
Peak Output ²	121 dB	134.5 dB	140.5 dB
Rated Noise Power ³	300 W	850 W	1700 W
Impedance	8Ω nominal	8Ω nominal	8Ω nominal
Sensitivity ⁴	90 dB	98 dB	102 dB
Driver Information	12" transducer, 2.5" voice coil, ferrite magnet	18" transducer, 4" voice coil, ferrite magnet	Dual 18" transducers, 4" voice coil, ceramic magnet assembly
Attachment Points	Two (2), fits yoke bracket	Sixteen (16) threaded M10 inserts	Sixteen (16) threaded M10 inserts
Dimensions (HWD) inches	23.5 x 13.9 x 12.7	20.9 x 25.8 x 30.4	20 x 47.2 x 30
Dimensions (HWD) mm	596 x 354 x 323	531 x 656 x 772	508 x 1198 x 762
Weight	29 lb / 13.2 kg	111 lb / 50.3 kg	191 lb / 87 kg

¹ All frequency ranges specified refer to measured free field response (half space, 2 pi).
² Calculated SPL at 1m, (half space, 2 pi), speaker operating at rated RMS power with pink noise within specified frequency range.

³ 2 hours of 6 dB crest factor pink noise, AES method.
⁴ 1 watt /1 meter, half space.

All models except AD-S112sw connect with Barrier strip screw terminals that accept up to #10 AWG stranded wire. AD-S112sw uses a Euroblock connector



Subwoofers

QSC Subwoofers bring earth-shaking realism to the cinema experience, driving home the impact of explosive soundtrack action. Our high quality MDF and plywood subwoofer enclosures feature large, fully radiused and flared ports that smooth airflow at high levels to minimize noise from port turbulence. Symmetrical spacing of ports relative to drivers creates uniform internal pressure to prevent distortion and damage. In dual-driver systems, the box is completely divided into single-woofer chambers for greater strength and rigidity, allowing each driver to function normally in the rare event that the other fails. With both single- and dual-driver models to choose from, our subwoofers excel at clean, punchy lows, delivering excitement you can feel to every seat.



	SB-1180	SB-5118	SB-7118	SB-5218	SB-7218	SB-15121
System Type	18" subwoofer	18" subwoofer	18" subwoofer	2 x 18" subwoofer	2 x 18" subwoofer	21" subwoofer
Frequency Range at -10 dB (Hz) ¹	29 Hz - 170 Hz	24 Hz - 100 Hz	22 Hz - 100 Hz	24 Hz - 100 Hz	22 Hz - 100 Hz	23.8 Hz - 100 Hz
Peak Output ²	125 dB	123 dB	125 dB	135 dB	137 dB	137 dB
Rated Noise Power ³	550 W RMS	500 W RMS	750 W RMS	1000 W RMS	1500 W RMS	2500 W RMS
Impedance	8Ω nominal	8Ω nominal	8Ω nominal	4Ω nominal	4Ω nominal	4Ω nominal
Sensitivity ⁴	98 dB	96.5 dB	98 dB	99.5 dB	101 dB	99 dB
Driver Information	18" (457 mm) 550 W high-efficiency subwoofer featuring 4" (100 mm) copper voice coil	18" (457 mm) 500 W high-efficiency subwoofer transducer featuring 4" (100 mm) copper voice coil	18" (457 mm) 700 W high-efficiency subwoofer transducer featuring 4" (100 mm) copper voice coil	Two 18" (457 mm) 500 W high-efficiency subwoofer transducers featuring 4" (100 mm) copper coils	Two 18" (457 mm) 700 W high-efficiency subwoofer transducers featuring 4" (100 mm) copper coils	21" (533 mm) high efficiency subwoofer transducer featuring a vented 6" (153 mm) copper voice coil on a fiberglass former. High excursion/low distortion design, with extremely high power handling and low thermal compression. Neodymium magnet to provide a very high force factor and linear excursion.
Dimensions (HWD) inches	35.9 x 30 x 11.7	35.75 x 30 x 20.3	35.75 x 30 x 20.3	30 x 48 x 24	30 x 48 x 24	48.8 x 30 x 24
Dimensions (HWD) mm	912 x 762 x 297	908.1 x 762 x 516	908.1 x 762 x 516	762 x 1220 x 610	762 x 1220 x 610	1238 x 762 x 610
Weight	97 lb / 43.5 kg	160 lb / 72.4 kg	162 lb / 73.3 kg	205 lb / 93 kg	210 lb / 95 kg	231 lb / 105 kg

¹ All frequency ranges specified refer to measured free field response (half space, 2 pi).
² Calculated SPL at 1m, (half space, 2 pi), speaker operating at rated RMS power with pink noise within specified frequency range.

³ 2 hours of 6 dB crest factor pink noise, AES method.

⁴ 1 watt / 1 meter, half space.

All models connect with Barrier strip screw terminals that accept up to #10 AWG stranded wire.

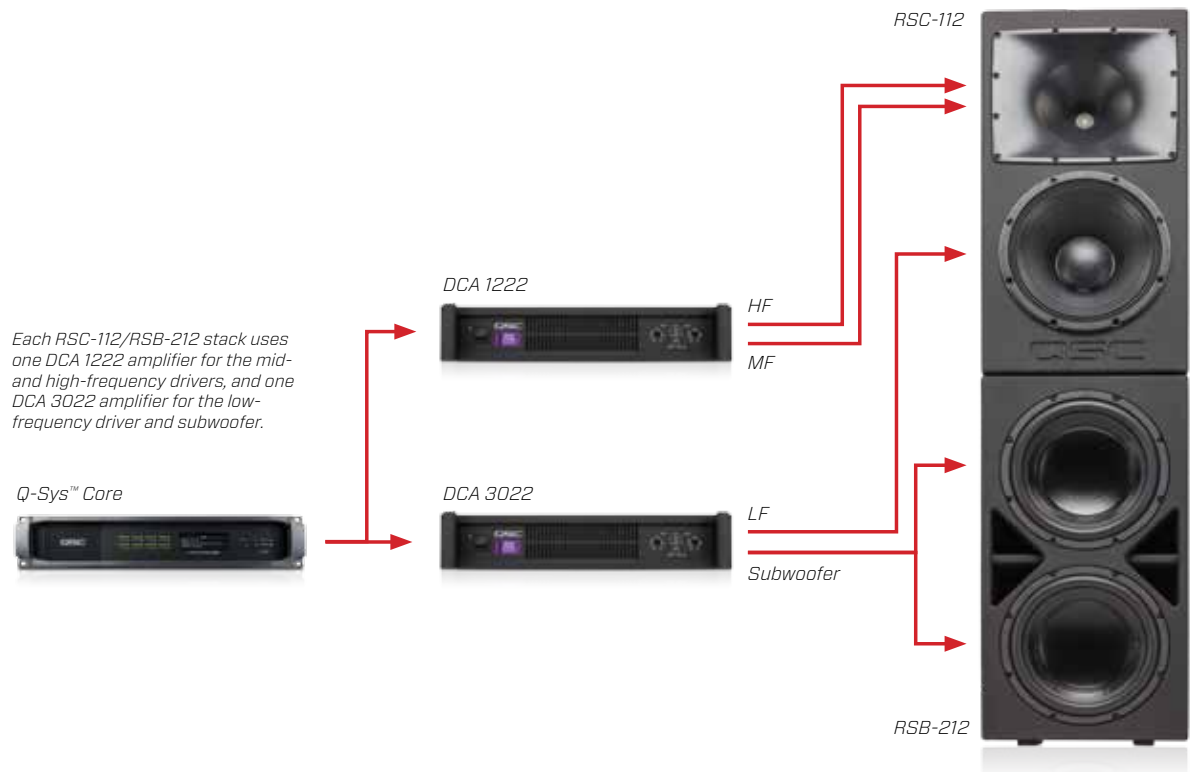


Reference Monitor System

The Reference Monitor System from QSC combines everything we know about achieving the best possible sound for critical listening situations. A collection of the best audio components is only part of the answer — the real secret is Total System Design. All parts are designed to work together in a system, as a system. It's what makes the QSC Reference Monitor System the new audio reference standard for the most demanding sound professionals and discriminating listeners.



- Complete system including loudspeakers, signal processing, and power amplification
- For rooms up to 35 feet (11 meters) from screen to last row of seating
- New RSC-112 3-way loudspeaker for low, mid, and high frequencies
- New RSB-212 subwoofer featuring two high-excursion 12-inch drivers
- Q-Sys™ Core for digital signal processing, routing, and control
- Legendary DCA amplifiers for crystal-clear power

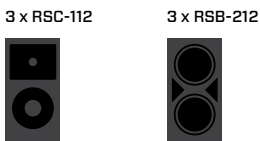


	RSC-112	RSB-212
Rated Coverage Angle (-6 dB)	90 degrees Axisymmetric	Omnidirectional
Frequency Range ¹ (-10dB)	55 Hz to 20 kHz	30 Hz to 80 Hz
Crossover Frequencies (up to 48 dB/oct using dedicated Q-Sys DSP)	LF: 80 to 120 Hz (selectable) MF: 1.2 kHz / HF: 7 kHz	N/A
Rated Noise Power (Voltage) ²	LF: 500 W / 63 V MF: 80 W / 25 V HF: 55 W / 20 V	1000 W / 54.8 V
Sensitivity ³	LF: 94 dB / MF: 107 dB / HF: 105 dB	96 dB
Maximum continuous SPL ⁴	LF: 121 / MF: 126 / HF: 122	120.5 dB
Maximum peak SPL ⁴	LF: 127 / MF: 132 / HF: 128	126.5 dB
Rated Impedance	LF: 8Ω, MF: 8Ω, HF: 8Ω,	3Ω
Maximum Recommended Amplifier Power	LF: 1000 W / MF: 500 W / HF: 300 W	1000 W
Transducers	LF: 12 in. (305 mm) woofer MF/HF: coaxial neodymium compression driver with 3.5" (90mm) MF voice coil and 1.75" (44mm) HF voice coil	2 x 12 in. (305 mm) Kevlar-reinforced paper cone woofers, 3 in. voice coils
Enclosure Details		
Input Connector	Parallel NLB: 1/to sub, 2/LF, 3/MF, 4/HF	Parallel NLB: 1/to sub, 2/LF, 3/MF, 4/HF
Enclosure Material	15-ply Baltic birch plywood	15-ply Baltic birch plywood
Dimensions (HxWxD)	28.5 x 15.1 x 13.5 inches (725 x 383 x 344 mm)	28.5 x 15.1 x 13.5 inches (725 x 383 x 344 mm)
Net Weight	66.4 lb (30.1 kg)	89 lb (40.4 kg)
Optional Accessories	RBK-12 baffle wing kit	RBK-12 baffle wing kit

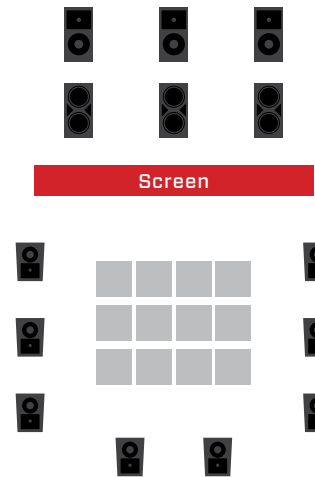
Subject to change without notice.
¹ Free-field, unprocessed, -10 dB from on-axis sensitivity
² AES2-1994 noise signal for 2 hrs
³ On-Axis, free-field sensitivity, 2.83V, 1 m
⁴ Calculated from rated noise voltage and sensitivity

In Theatre/Behind Screen

Screen Channels and Subs



Surrounds

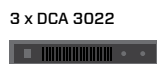


Projection/Rack Rooms

Control / Processing



Amplifiers



■ = 4 Seat Block



Lobby Loudspeakers

AcousticDesign™ surface-mount speakers

AcousticDesign™ surface-mount speakers are ideal for lobbies and other ancillary spaces in cinema facilities, including outdoor box office areas, restrooms, and corridors. With flat response, wide dispersion, and very low distortion, these full-range speakers deliver a natural sound for both background music and voice. Designed for all general audio applications, AcousticDesign surface-mount models come in a wide range of sizes, from a compact 3-inch 2-way to a dual 8-inch 2-way and even a dual 8-inch subwoofer. Several models have built-in 70/100 volt distributed line transformers. The enclosures ship in either black or white, and they may be painted to match any decor.

- AcousticDesign surface-mount speakers may be adapted to third-party mounting solutions or used with the following QSC ball-mount and yoke mount accessories:
- AD-S32T: Yoke and ball mount included
- AD-S52/S52T: YM-5 Yoke Mount available
- AD-S6T/AD-S8T/AD-S10T/AD-S12: X-Mount™ included, Yoke Mounts available



AD-S6T



AD-S8T



AD-S10T



AD-S12

	AD-S6T	AD-S8T	AD-S10T	AD-S12
Effective frequency range ¹	60 – 20k Hz	55 – 20k Hz	50 – 19k Hz	52 – 20k Hz
Rated noise power / voltage ²	150W / 35V (rms)	200W / 40V (rms)	250W / 45V (rms)	300W / 50V (rms)
Sensitivity ³	89 dB SPL	90 dB SPL	92 dB SPL	95 dB SPL
Coverage Angle (-6 dB)	105° conical	105° conical	90° conical	75° conical
Output ⁴ (Peak SPL @ 1M)	121 dB	121 dB	122 dB	126 dB
Driver Information				
LF	6" weather resistant paper cone woofer, 1.5" voice-coil	8" weather resistant paper cone woofer, 2" / 51mm voice-coil	10" weather resistant paper cone woofer, 2.5" / 64 mm voice-coil	12" weather resistant paper cone woofer, 3" / 76 mm voice-coil
HF	1" silk dome tweeter	1" exit / 1.4" voice-coil compression driver	1" exit / 1.4" voice-coil compression driver	1" exit / 1.4" voice-coil compression driver
Rated Impedance	8Ω	8Ω	8Ω	8Ω
Input Connectors	Euroblock connector with parallel output terminals	Euroblock connector with parallel output terminals	Euroblock connector with parallel output terminals	Euroblock connector with parallel output terminals
Enclosure	Painted ABS polymer	Painted ABS polymer	Painted ABS polymer	Painted ABS polymer
Ingress protection	IP-54	IP-54	IP-54	IP-54
Net Weight	13.6 lb / 6.2 kg	24.1 lb / 11 kg	31 lb / 15 kg	35 lb / 16 kg

¹ Free-field, -10 dB from on-axis sensitivity

² IEC60268-1 noise signal for 2 Hrs

³ On-Axis, free-field sensitivity, 2.83V, 1 m

⁴ Calculated from rated noise voltage and sensitivity



**AD-S32T****AD-S52****AD-S52T**

Frequency Range, -10 dB	65 Hz - 20 kHz	60 Hz - 20 kHz	60 Hz - 20 kHz
Nominal Coverage	100° H x 100° V	90° H x 90° V	90° H x 90° V
Power Capacity ¹	30 W (100 hrs)	60 W (100 hrs)	60 W (100 hrs)
Sensitivity ²	85 dB	86.5 dB	86 dB
LF Driver Information	3" weather resistant, polypropylene cone woofer	5.25" shielded, weather-resistant	5.25" shielded, weather-resistant
HF Driver Information	0.75" neodymium tweeter	1" neodymium tweeter	1" neodymium tweeter
Controls / Selectors	70 V: 30, 15, 7.5, 3.8 W 100 V: 30, 15, 7.5 W 8Ω Selectable Rotary Knob	N.A.	70 V: 30, 15, 7.5, 3.75 W 100 V: 30, 15, 7.5 W 8Ω Selectable Rotary Knob
Connectors	Screw terminals	5-way binding posts x 2	5-way binding posts x 2
Dimensions (HWD) inches	26.2 x 10.2 x 11.4	7.9 x 4.8 x 5.5	11.3 x 7.0 x 8.3
Dimensions (HWD) mm	201 x 122 x 140	287 x 178 x 212	287 x 178 x 212
Weight (each)	4 lb / 1.8 kg	15 lb / 6.8 kg	18 lb / 8.2 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.

**AD-S112sw****AD-S28Tw**

System Type	12" Subwoofer	Surface-mount bandpass subwoofer, ported
Low-frequency Transducer	12" woofer, 2.5" voice coil	Dual 8" (200 mm) weather resistant, polypropylene cone woofers, rubber surround
Frequency Response (-6 dB) ¹	30 Hz - 135 Hz	42 Hz - 165 Hz
Filter	N/A	120 Hz low-pass, passive, bypassable
Max Continuous Output ² : half space / full space	121 dB SPL / 115 dB SPL	118 dB SPL / 112 dB SPL
Nominal Impedance	8Ω	8Ω
Rated Noise Power	300 W (2 hours AES2 - 1984)	250 W (2 hours IEC)
Sensitivity	90 dB	94 dB
Transformer Type	N/A	Custom low distortion laminated core, wide bandwidth design
Transformer Taps	N/A	70V: 200, 100, 50, 25 W / 100V: 200, 100, 15 W / 8Ω selected by switch
Environmental	N/A	Exceeds Mil Spec 810 for humidity, salt spray and dust; IEC 60529 IP-X4 splash rating
Connectors	Euroblock	4 position barrier strip; 2 in / 2 out
Dimensions (HWD) inches	23.5 x 13.9 x 12.7	15.9 x 9.9 x 22.75
Dimensions (HWD) mm	596 x 354 x 323	404 x 251 x 603
Weight	29 lb / 13.2 kg	43 lb / 19.5 kg

¹ Measured free field.

² Pink noise within specified frequency range at 1m at rated RMS power.



AcousticDesign™ ceiling speakers

AcousticDesign™ ceiling speakers are full-range, flush-mounting speakers with wide dispersion and very low distortion. Designed for clarity and presence, these speakers are ideal for background music and general audio anywhere in a theater complex, including lobbies, outdoor box office areas, restrooms, and corridors.

The following back boxes, grilles, and brackets are available for our AcousticDesign ceiling speakers:

- AD-C1200: Back Box AD-C1200BB; Square Grille AD-C1200SG
- AD-C820/C821: Back Box AD-C800BB (AD-C820 only); Square Grille AD-C800SG; Round Grille AD-C800RG
- AD-C152T: Mud Ring Brackets ADC-MR and ADC-MRS (shallow); New Construction Brackets ADC-NC, ADC-NCS (shallow)



	AD-C820/C821	AD-C1200	AD-C42T
System Type	2-way ported	2-way ported	2-way sealed
Frequency Range, -10 dB (Hz)	52 Hz - 18 kHz	37 Hz - 18 kHz	60 Hz - 20 kHz
Nominal Coverage	90° conical	90° conical	100° conical
Power Capacity ¹	200 W (100 hrs)	300 W (100 hrs)	40 W (100 hrs)
Sensitivity ²	91 dB	93 dB	88 dB
LF Driver	8" weather resistant, treated paper cone woofer	12" weather resistant, treated paper cone woofer, 75 mm voice coil, ferrite magnet	4" weather resistant, polypropylene cone woofer
HF Driver	1.4" co-axial compression driver	1.75" co-axial compression driver	0.75" titanium dome tweeter, rubber surround
Controls / Selectors	70 V: 100, 50, 25, 12.5 W 100 V: 100, 50, 25 W 16Ω Externally Selectable	70 V: 150, 75, 37.5 W 100 V: 150, 75, 37.5, 18.2 W 16Ω Internally Selectable	70 V: 30, 15, 7.5, 3.8 W 100 V: 30, 15, 7.5 W 8Ω Externally Selectable
Input Connectors	AD-C820: Ceramic block AD-C821: 4-pin Euro terminals Fire protective sub-chamber	Ceramic block terminals Fire protective sub-chamber	Ceramic block or 4-pin Euro terminals, fire protective sub-chamber
Suspension/Attachment Point	AD-C820: Pre-installed back box with 4 mounting straps AD-C821: Captive, integral mounting clamps	Pre-installed back box with 4 mounting tabs	N.A.
Dimensions (HWD) inches	14.9 x 14.9 x 8.3	23 x 18 x 15.5	7.5 x 7.5 x 9.3
Dimensions (HWD) mm	379 x 379 x 211	584 x 454 x 393	191 x 191 x 236
Net Weight (each)	17.5 lb / 7.9 kg	78 lb / 35.3 kg	6.1 lb / 2.7 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.



**AD-CI52T****AD-CI52ST****AD-C81Tw**

System Type	2-way ported	2-way ported, shallow can	Ported subwoofer
Frequency Range, -10 dB (Hz)	65 Hz - 20 kHz	53 Hz - 20 kHz	28 Hz - 208 Hz
Nominal Coverage	90° conical	100° conical	N.A.
Power Capacity ¹	40 W (100 hrs)	40 W (100 hrs)	100 W (100 hrs)
Sensitivity ²	86 dB	87.5 dB	92 dB
LF Driver	5.25" weather resistant, low distortion fiber-glass cone woofer, 25 mm voice coil, neodymium magnet	5.25" weather resistant, low distortion fiber-glass cone woofer, 25 mm voice coil, neodymium magnet	8" weather resistant, polypropylene cone woofer, rubber surround
HF Driver	1" titanium dome tweeter, rubber surround	1" titanium dome tweeter, rubber surround	N.A.
Controls / Selectors	70 V: 30, 15, 7.5, 3.8 W 100 V: 30, 15, 7.5, 3.8 W 8Ω Externally Selectable	70 V: 30, 15, 7.5, 3.8 W 100 V: 30, 15, 7.5, 3.8 W 8Ω Externally Selectable	70 V: 60, 30, 15, 7.5 W 100 V: 60, 30, 15 W 8Ω Externally Selectable
Input Connectors	4-pin Euro terminals, fire protective sub-chamber	4-pin Euro terminals, fire protective sub-chamber	Ceramic block or 4-pin Euro terminals, fire protective sub-chamber
Suspension/Attachment Point	N.A.	N.A.	N.A.
Dimensions (HWD) inches	8.5 x 8.5 x 9.3	12.6 x 12.6 x 3.75	12.6 x 12.6 x 14.8
Dimensions (HWD) mm	216 x 216 x 236	321 x 321 x 95	321 x 321 x 95
Net Weight (each)	7.5 lb / 3.4 kg	8 lb / 3.7 kg	20 lb / 9.1 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.

AcousticCoverage™ ceiling speakers

**AC-C4T**

System Type	Full-range ported
Frequency Range, -10 dB (Hz)	70 Hz - 16 kHz
Nominal Coverage	140° conical
Rated Noise Power ¹	16 W
Sensitivity ²	89 dB
Driver	4" polypropylene cone with rubber surround
Controls / Selectors	70 V: 16, 8, 4, 2, 1 W 100 V: 16, 8, 4, 2, 1 W 8Ω Externally Selectable
Input Connectors	4-pin Euro terminals
Suspension/Attachment Point	N/A
Dimensions (WD) inches	8.4 x 7.9
Dimensions (WD) mm	214 x 201
Net Weight (each)	4.9 lb / 2.22 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.





Photo courtesy of TK Architects International

QSC™

Cinema

Innovations



Technology Innovations for Cinema

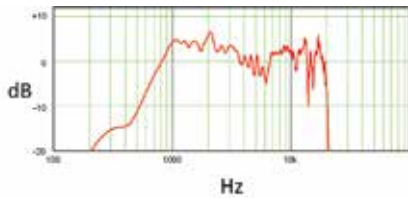
Providing optimal performance at the best possible value for your cinema investment is the result of a lot of innovation. At QSC, innovation is a combination of industry best practices and our own design inventions and lab-proven technology breakthroughs.

Directivity Matched Transition (DMT™)

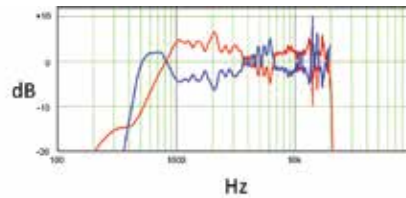
All woofers have wide coverage at lower frequencies that narrows as frequency increases. Many speaker designs ignore this acoustic principal and pretend that only the high frequency horn coverage matters. In reality, a smooth, directional transition from woofer to horn is important. QSC calls this technique Directivity Matched Transition (DMT). DMT matches the high-frequency coverage angle to the coverage angle of the woofer at the crossover frequency. The result is smooth, even coverage at all frequencies throughout the listening area.

Intrinsic Correction™

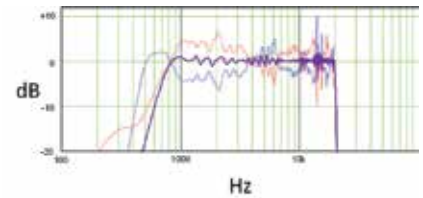
Intrinsic Correction corrects the intrinsic behaviors of cinema loudspeakers, removing any anomalies from the equation of factors that affect measured response and, ultimately, the quality of sound. It involves a set of laboratory derived settings which are implemented in the Q-Sys Core processor. Intrinsic Correction optimizes performance and minimizes the amount of on-site room-tuning, because many response anomalies are corrected before the loudspeakers are installed.



Lab measurements produce a response curve of the loudspeaker.



Then, an inverse of that response is created using FIR filters.



When the two are combined, the result is a much flatter response (purple line).

Pre-installed speaker-side brackets

Our SR Series surround loudspeakers are packaged with pre-installed speaker-side hardware, which allows fast single-installer mounting. Brackets support down-angles of either 15° (standard) or 23° (optional).



Digital Cinema Processors

QSC was the first company to combine all the essential functions of cinema audio into a single device: crossovers, booth monitor, routing, EQ, and status monitoring. The DCP replaces an assortment of separately sourced parts with a single box that handles everything, simplifying installation and operation while reducing costs.



DCM 30D



DCP 300

Coaxial Drivers

QSC's unique coaxial drivers align components in both time and space, eliminating phase cancellation and uneven frequency response.

When two drivers are spaced far apart relative to the wavelength of the crossover frequency, pattern interference occurs in the overlap region, resulting in audible effects like lobing and comb filtering. (Figure 1)

Coaxial drivers have the same origin, so they are aligned in both the horizontal and vertical planes. This eliminates interference and lobing/comb filtering, producing even coverage throughout the listening area. (Figure 2)

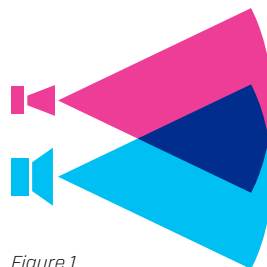


Figure 1

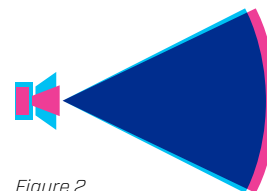


Figure 2



Three-Point Pan-Tilt

The pan-tilt mechanism for mid-high components makes quick work of assembling and aligning screen channel systems. The assembly is labeled for repeatability and features a notched tilt adjustment to maintain vertical alignment.



Axisymmetric Horn Design

The most natural sounding horns avoid parallel surfaces and abrupt changes in contour. Axisymmetrical horn design results in a coverage pattern that is the same in both the vertical and horizontal axes, ensuring that all listeners hear the same sound, everywhere.

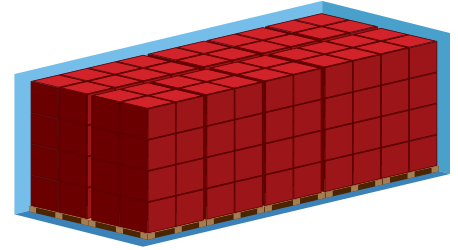
DataPort

Using a standard VGA-style connector that simplifies wiring and speeds installation, DataPort provides single-cable integration of our DCA amplifiers with QSC processors. DataPort enables DSP crossovers, speaker-specific EQ, and monitoring and control of amplifier and loudspeaker functions. A single QSC DataPort connection includes two channels of audio, output voltage monitoring (VMON), current monitoring (IMON), clip/protect monitoring, and thermal monitoring.



Designed for Pallet Loading

Cost effective design goes beyond product performance and installation features. QSC takes special care when designing the dimensions of products and shipping cartons to ensure that when they're loaded on pallets, cargo and container space is utilized in the most efficient manner possible. You'll never pay for shipping "air".



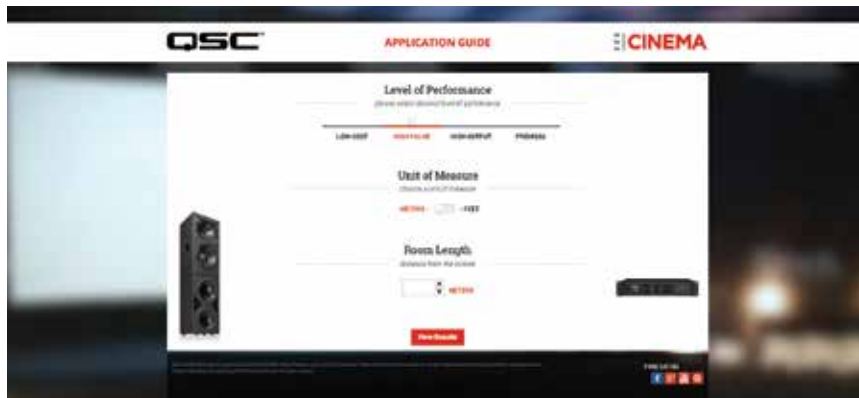
CineSight™

CineSight™ is an exclusive integrated sight that works even after the screen has been installed. CineSight allows fast, accurate aiming without having to remove the driver.



Online Application Guide

While offering the industry's widest selection of loudspeakers assures that we can provide the most appropriate solution for your specific cinema application, we recognize that it can also make it challenging to select the best package of processing, amplifiers and loudspeakers.



Our Online Application Guide makes that selection much easier. Simply enter a few basic parameters for your application, click "View Results", and you'll get a basic system package which can be used as a starting point to tailor the most optimal system configuration for your requirements, at the most cost-effective price. Visit qscinema.com/resources.



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