



Cinema Loudspeaker System

SC-2150



Features

- Optimized design for smaller cinemas - up to 55 ft (16.6 m) in length
- 3-way selectable, bi-amplified or full passive screen channel system
- Heavily braced, MDF low-frequency enclosure for extended bass response
- 6.5" horn loaded midrange driver provides highly articulate dialogue
- Shallow 14.5" (368 mm) depth reduces space required behind the screen
- Advanced crossover circuitry protects the HF and MF drivers from over-powering and excessive low-frequency program material

Developed specifically for the unique requirements of professional motion picture playback in smaller cinemas, QSC extends its commitment to the cinema market with the SC-2150 Screen Channel Loudspeaker. As a member of QSC's DCS (Digital Cinema Speaker) Series, the SC-2150 offers high-power handling, excellent sensitivity, and extended bass response in a very compact enclosure.

The SC-2150 is a 3-way, selectable passive full-range or bi-amplified screen channel loudspeaker system comprised of two main units – the mid-high frequency system and the low-frequency enclosure. The components are easily assembled on-site via a pan and tilt bracket that mounts the mid-high components to the top of the LF enclosure.

The mid-high system features a high output, horn loaded 6.5" midrange cone driver and a 1.4" (35.6 mm) diaphragm compression driver mounted to an adjustable pan and tilt bracket. QSC's patented Cine-Sight simplifies aiming of the horns for proper audience coverage.

The dual 15" (381 mm) low-frequency enclosure is designed specifically to address the extended low-frequency response required for cinema applications. The compact enclosure is only 14.5" (368 mm) deep, reducing the space required behind the screen. The enclosure is constructed of high quality MDF panels and features Single Woofer Chambers (SWC, separate chambers for each transducer). In the rare event of a transducer theft or failure, this prevents over-excursion of the remaining transducer caused by improper box loading.

With Symmetrical Port Loading (SPL), bass ports are evenly spaced on each side of the transducers, making internal pressure more uniform across the back surface of the transducer. This prevents the cone from being displaced to one side or another by unbalanced forces, reducing the chance of driving the voice coil out of the center of the gap at high power.

The SC-2150 includes a driver protection network and a passive crossover for bi-amp and full passive operation. Power limiter circuitry protects the high-frequency and mid-frequency drivers from overpowering. A simple switch setting determines the operating mode and eliminates dual inventory and ordering issues associated with fixed bi-amp or passive models. The 3-way design provides exceptional coverage of the critical midrange band for improved dialog intelligibility.

The SC-2150 is designed for ease of installation. Three bolts are all that are required to secure the mid-high system to the top of the LF enclosure. A pre-wired harness and connector plugs into the terminal plate to provide all electrical connections to the mid-high system. Pre-installed rubber feet speed installation, thereby reducing labor costs.

SC-2150 Details

Specifications

SC-2150

Nominal Coverage (-6 dB)	90° horizontal x 40° vertical	
Frequency Response ¹ (-6 dB)	38 Hz – 20 kHz	
Frequency Range ¹ (-10 dB)	32 Hz – 20 kHz	
Crossover Frequencies (passive)	500 Hz & 2200 Hz	
Crossover Frequencies (bi-amp)	500 Hz active, 24 dB/octave LF to mid-high, 2200 Hz passive	
Impedance (passive mode)	4Ω	
Maximum Input Power ² (passive mode)	500 W RMS	
Sensitivity (1 watt / 1 meter, passive mode)	99 dB SPL	
Calculated Maximum Output ³ (passive mode)	126 dB continuous, 132 dB peak SPL at 1 m	
	2150-LF	2150-HF
Impedance	4Ω	8Ω
Sensitivity (1 watt / 1 meter, half space)	100 dB	102 dB
Maximum Input Power	500 W RMS ⁴	80 W RMS ⁵
Maximum Recommended Amplifier Power	1000 W RMS	320 W RMS
Recommended Processing	Subsonic filter below 30 Hz, >18 dB per octave	4th order LR crossover at 500 Hz via QSC processor
Connectors	Barrier strip screw terminals accept up to #10 AWG stranded wire	Factory installed NL4 plug for connection to input terminal plate
Transducers	Two 15" (381 mm) high efficiency, extended bass woofers featuring 3" voice coils	6.5" high efficiency mid range, 1" (38 mm) exit, 1.4" (35.5 mm) diaphragm compression driver
Enclosure	Ported enclosure with symmetrical port design, tuned to 40 Hz, constructed of MDF and heavily braced	Tilt/Pan Bracket -20 to +10° vertical tilt ± 15° horizontal pan
Dimensions (HWD)	38.3" x 30" x 14.5" (972 mm x 762 mm x 368 mm)	17.3" x 16.3" x 6.8" (440 mm x 414 mm x 173 mm)
Weight – Net	107 lb / 48.5 kg	10 lb / 4.5 kg
Weight – Shipping	121 lb / 54.9 kg	12 lb / 5.4 kg
System Weight – Net	117 lb / 53.1 kg	
System Weight – Shipping	133 lb / 60.3 kg	
Baffle Wall Cut-Out	30.5" x 56.1" (775 mm x 1425 mm) contoured to the perimeter of MF-HF horns	

1) Half-space with recommended QSC processing

2) IEC 60268-5, 2 hrs, Power = V_{rms}^2/Z_{nom}

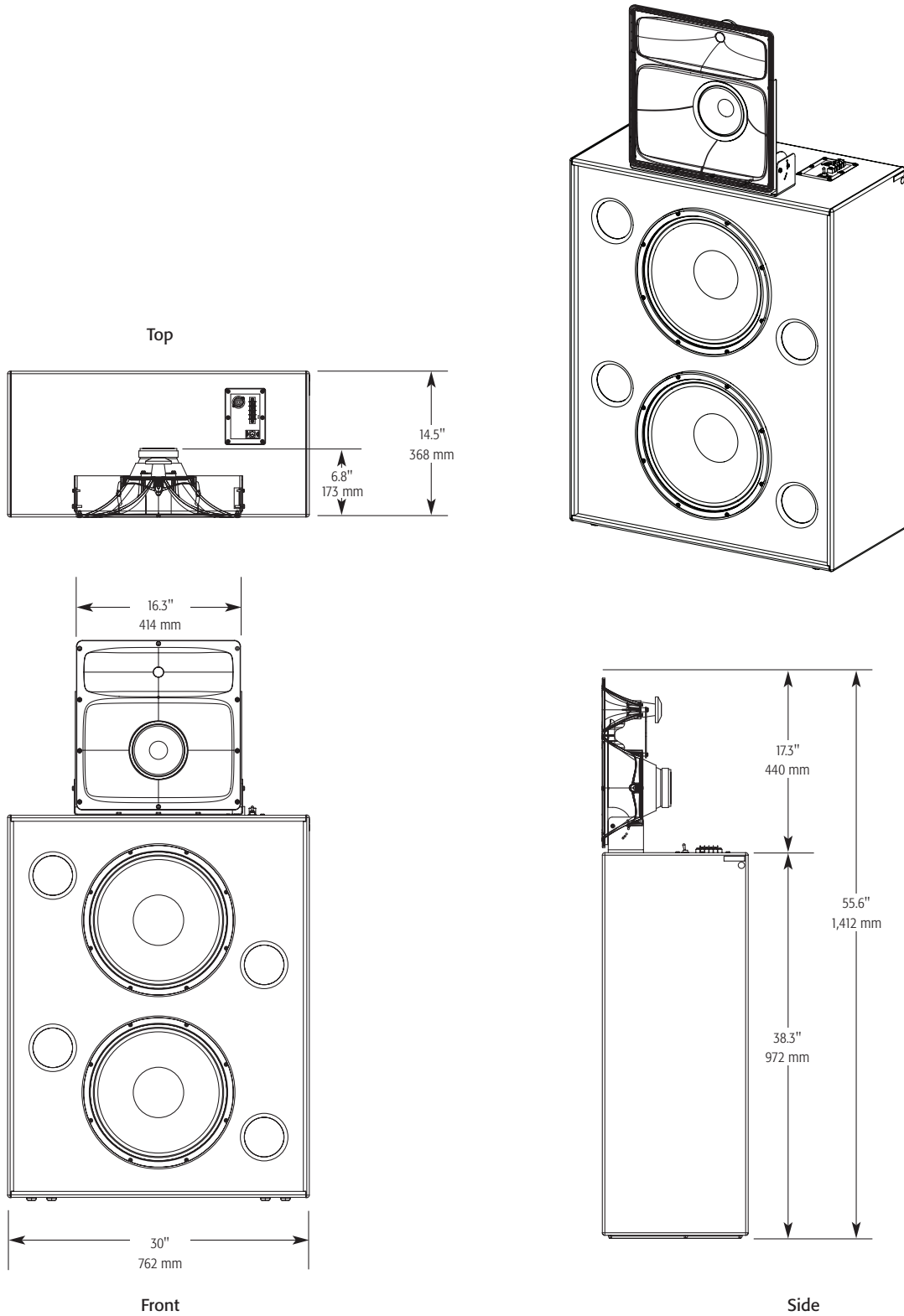
3) Calculated SPL at 1 m, full-space, speaker operating at rated continuous power handling, 6 dB crest factor

4) AES2-1984, 40 Hz – 400 Hz, 2 hrs, Power = V_{rms}^2/Z_{nom}

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



SC-2150 Technical Drawing



Specifications subject to change without notice.



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