

Features

- Multiple aperture diffraction slot waveguide provides exceptionally wide horizontal coverage (140°) and a near ideal vertical line source
- Exceptionally high output capability in a very compact form factor
- Bi-amp or tri-amp design
- Dual 10" long excursion, high power, low-frequency transducers
- Single 3" diaphragm neodymium compression driver
- WL2102 – Cored composite construction results in lighter weight (70 lb, 31.8 kg) and greater weather resistance
- WL2102-w – Birch ply construction offers reasonable weight (83 lb, 37.7 kg) at a lower cost
- Fully captive hardware design incorporates all components necessary for box to box rigging

The QSC WideLine-10 is a full range line array loudspeaker system designed for use in a wide variety of venues, ranging from ballrooms, theaters and nightclubs to concert halls, houses of worship and arenas. The WideLine-10 features an open, natural sound quality and exceptionally wide 140° horizontal coverage pattern—the widest of any line array system currently available.

WideLine-10 is a three transducer system and can be operated in either biamplified or triamplified modes. Both 10" diameter low-frequency transducers are used to cover the lowest frequency range. One driver covers only low frequencies while the range of the other extends through the mid frequencies to the mid/high crossover point. The use of a single midrange transducer allows the horizontal coverage pattern to remain as wide as possible and assures smooth response both on and off axis at the transition to the diffraction slot loaded high frequency section. Biamplification uses passive elements to affect the required frequency response shading of the low-frequency drivers and offers reduced amplifier channel counts and simplified wiring. Triamplification allows the required low-frequency shading to be controlled with greater precision via active electronics and is recommended where maximum output and highest sound quality are required.

The WideLine-10's 16 ohm per transducer low-frequency impedance optimizes allocation of amplifier channels. In biamp mode the LF/

MF sections of up to four enclosures can be powered by one amplifier channel operating into a two ohm load. In triamp mode the LF and MF sections of up to eight enclosures can be powered by a single two channel amplifier.

The high-frequency section consists of a 1.4" exit, 3" 16 ohm, neodymium compression driver, mounted on a proprietary multiple aperture diffraction slot waveguide. This patent pending device produces the ideal linear source needed for good line array performance, and facilitates the enclosure's exceptionally wide horizontal coverage.

The WL2102 features lightweight, highly weather resistant cored composite construction resulting in a net weight of just 70 lb per enclosure; less than half the weight of some conventional designs.

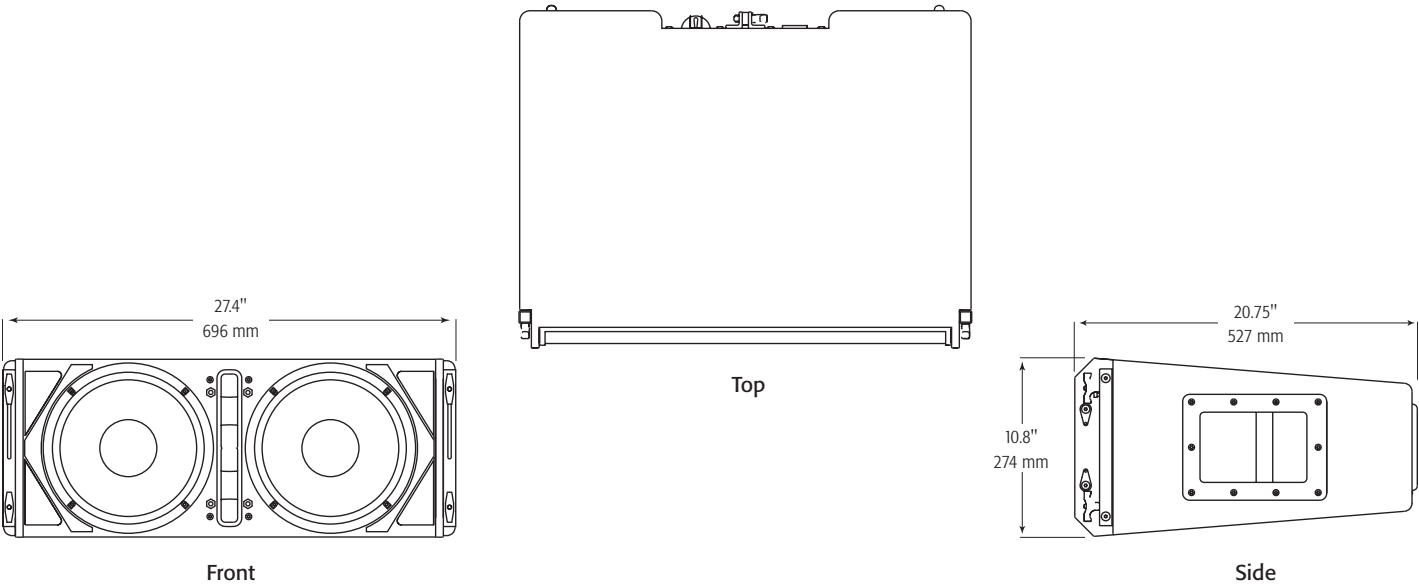
The enclosure of the WL2102-w (pictured) is constructed of industry standard birch plywood resulting in a slight increase in weight; 83 lb/37.7 kg vs. 70 lb/31.8 kg for the WL2102, at a substantial cost savings for more price sensitive applications where the ultra light weight and extreme weather resistance of the cored composite enclosure are not required. The mechanical design allows composite and plywood enclosures to be arrayed together.

WideLine-10 features a unique 3-point suspension system allowing construction of arrays of up to 24 enclosures (5:1 design factor). A 12 enclosure hang will maintain a 10:1



design factor which may be dictated by local regulations and practices. Vertical splay angles between adjacent enclosures are adjustable in one degree increments from zero to ten degrees. All hardware required to construct an array is permanently attached to the enclosure; there are no loose parts to misplace.

Two array frame models offer the user the flexibility to choose the right tool for the job. The AF2102, the larger of the two, can accommodate array sizes up to 12 enclosures while maintaining a design factor of 10:1. The smaller AF2102-s does triple-duty; accommodating suspended arrays of up to six enclosures with a 10:1 design factor, acting as a base for ground-stacked arrays of up to six enclosures and as an attachment allowing WideLine-10s to be stacked atop QSC 215PCM and 215SB subwoofers.



	WL2102	WL2102-w
Configuration	Bi-amp or tri-amp mode	
Transducers		
High-frequency	1.4" exit, 3" titanium diaphragm, neodymium magnet assembly	
Low-frequency	2 x 400 W, 16Ω 10" woofer, 3" voice coil, ceramic magnet assembly	
Frequency Response (±3 dB)	55 Hz – 18 kHz (with recommended DSP processing)	
Frequency Range (-10 dB)	48 Hz – 20 kHz (with recommended DSP processing)	
Nominal Impedance	HF: 16Ω LF bi-amp mode: 8Ω LF tri-amp mode: 16Ω (x 2)	
Continuous Power Capacity/Recommended Power	HF: 80 W / 300 W (2 hours, AES1984-2 method, 1 – 10 kHz) LF bi-amp mode: 600 W / 1400 W (2 hours, AES1984-2 method, 80 – 800 Hz) LF tri-amp mode: 400 W / 700 W (x 2) (2 hours, AES1984-2 method, 80 – 800 Hz)	
Sensitivity (1 W at 1 m)	HF: 107.5 dB (single cabinet measured in free space.) LF: 98 dB (single cabinet measured in free space. LF drivers connected in parallel)	
Maximum Output – Continuous/Peak (SPL at 1 m)	HF: 127 dB / 133 dB LF: 127 dB / 133 dB	
Nominal Coverage	H: 140° V: dependent on number of elements used	
Cabinet Type	Ported / trapezoidal	
Enclosure Material	Cored composite	Baltic birch plywood
Grille	Perforated, formed powder coated steel	
Connectors	2 x Neutrik Speakon® NL8 in parallel	
Pin Outs	Pins	Bi-Amp Tri-Amp
	1+/1-	LF MF
	2+/2-	NC LF
	3+/3-	NC NC
	4+/4-	HF HF
Attachment Points	Integral, adjustable rigging system, vertical splay adjustable in 1° increments from 0° – 10°	
Weight (Net / Shipping)	70 lb (31.8 kg) / 78 lb (35.5 kg)	83 lb (37.7 kg) / 91 lb (41.4 kg)
Dimensions (HWD)	10.8" x 27.4" x 20.75" (274 mm x 696 mm x 527 mm)	

Specifications subject to change without notice.