



## KW Series Active Loudspeakers

### Features

- K Series performance in a lightweight, birch design
- 1000 watt Class D power modules in all models (2 x 500 W continuous)
- Extensive DSP featuring DEEP™ and Intrinsic Correction™ enhances system performance
- Directivity Matched Transition™ (DMT) ensures uniform coverage across the entire sound field
- Rugged, texture-painted birch enclosures
- Four-position Mic/Line gain (full-range models)
- Tour-grade 16 gauge steel grilles
- Comfortable ergonomic handles
- 35 mm pole sockets with Tilt-Direct™ (KW122, KW152)
- M10 rigging points for suspended installation (full-range models)
- KW122 also functions as stage monitor



KW122 | KW152 | KW153 | KW181

Building on the success of our K Series, the KW Series represents the next evolutionary step in wood enclosure loudspeakers. Our system engineers have created the KW Series to feature all the groundbreaking electronic attributes of our popular K Series while at the same time designing a product that is both smaller and significantly lighter than previous wood enclosure models.

**High Output:** Like K Series, each of the four KW Series models features a QSC designed, 1000 watt (2 x 500) Class D power module. And continuing in the K Series tradition, every model is fitted with the identical high-output 1.75" HF device (full-range models) and woofers of the same high quality design, regardless of speaker size.

**Defined Coverage Area:** Directivity Matched Transition™ (DMT) provides for matched LF and HF coverage across the entire listening area, eliminating unnatural "dead" or "hot" frequency zones.

**DSP:** Extensive signal processing is employed throughout, providing levels of sonic clarity and total output that defy all expectations for a product in this category:

- Intrinsic Correction™, first featured in our high-end line array products maps 65-75 spatially-averaged measurements to IIR and FIR filters that actively adjust time, frequency and amplitude response to a maximally flat bandpass target. The result is a speaker that behaves equally well across the entire sound field.
- DEEP™ and excursion limiting allow for extended low-frequency response by actively managing low-frequency transients without degradation of the underlying signal or adjacent frequencies.
- GuardRail™ protection, first introduced on our GX Series amplifiers protects both the amplifier module and your performance from unnatural and destructive clipping.

**Connectivity:** KW Series features a four-position mic / line gain switch that allows for connection of a wide variety of devices. Combo XLR and 1/4" TRS inputs accept both mic and line level input while a set of RCA phono inputs (except KW181) allow additional connectivity to portable MP3 players, CD players and line-level mixers. Up to three audio

sources can be mixed internally and summed to a balanced output for "daisy-chaining" of multiple units. Separate direct outputs are also provided on each channel for additional output flexibility.

**Control:** On-board switches provide preset EQ settings. The HF setting (full-range models) can be set to VOCAL BOOST for additional presence in the critical mid-frequency area or FLAT for accurate reproduction of the incoming signal. The LF switch can be set to NORM, DEEPTM for additional bass extension, or EXT SUB (full-range models) for use with an external subwoofer. The rear panel LED switch can be set to POWER, illuminating the front-mounted LED when the unit is powered on, OFF for applications where it is not desirable to illuminate the front LED, or LIMIT which indicates to the system operator

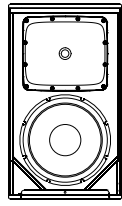
that the clip limiter circuit has been engaged during operation.

**Tilt-Direct™:** The KW122 and KW152 feature a unique Tilt-Direct pole cup mounting system. A simple turn of the dial engages a 7.5 degree downward tilt of the speaker allowing acoustic energy to be kept on the audience and off reflective surfaces for applications where maximum coverage from a high-positioned speaker is desired.

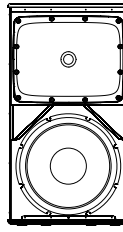
**Remote Gain:** Remote gain control capability is offered via a potentiometer (not included) connected to the on-board Phoenix-Style connector. In an installed application, multiple KW Series speakers can be "daisy-chained" for total gain control from a single remote pot. Auto-standby mode is engaged after 5 minutes of inactivity.

**Premium-Grade Materials:** KW Series is designed to withstand the rigors of professional use. Advanced construction processes, premium-grade Baltic birch cabinetry, ergonomic, cast aluminum handles, low-noise casters (KW181) and a highly protective steel grille provide for ease of transport and long term durability. Integrated M10 suspension points allow for flown applications with a KW M10 KIT (sold separately) and a threaded pole receptacle (KW181) provides for a positive, wobble free connection to a threaded speaker pole (included).

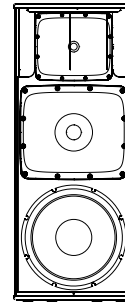
## KW Series Specifications



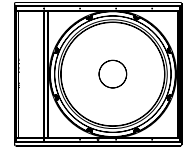
**KW122**



**KW152**



**KW153**



**KW181**

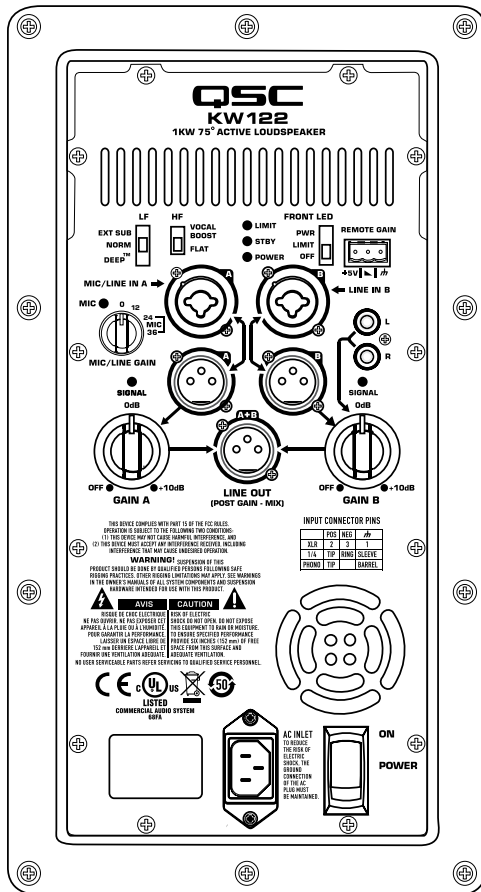
Configuration	12" 2-way multipurpose loudspeaker	15" 2-way trapezoidal loudspeaker	15" 3-way trapezoidal loudspeaker	18" subwoofer
Transducers				
Low-frequency	12" cone transducer	15" cone transducer	15" cone transducer	18" cone transducer
Mid-frequency	—	—	6.5" mid range cone transducer	—
High-frequency	1.75" diaphragm compression driver	1.75" diaphragm compression driver	1.75" diaphragm compression driver	—
Frequency Response (-6 dB)	53 Hz–18 kHz	47 Hz–18 kHz	35 Hz–18 kHz	40 Hz–112 Hz
Frequency Range (-10 dB)	50 Hz–20 kHz	44 Hz–20 kHz	33 Hz–20 kHz	37 Hz–129 Hz
Nominal Coverage (-6 dB)	75° axisymmetric	60° axisymmetric	75° axisymmetric	—
Maximum SPL <sup>1</sup>	131 dB peak	133 dB peak	134 dB peak	135 dB peak
Amplifiers				
Power Output <sup>2</sup>	1000 W Class D continuous (500 W LF, 500 W HF)	1000 W Class D continuous (500 W LF, 500 W HF)	1000 W Class D (500 W LF, 500 W MF/HF) continuous	1000 W Class D continuous
Input Impedance ( $\Omega$ )				
Channel A XLR / 1/4"				
Mic gain setting	0 dB, +12 dB, +24 dB, +36 dB			
Balanced	38 k, 10 k, 2.66 k, 660 $\Omega$			
Unbalanced	19 k, 5 k, 1.33 k, 330 $\Omega$			
Channel B XLR / 1/4"	38 k balanced / 19 k unbalanced			
Channel B RCA	10 k			
XLR / 1/4"	38 k balanced / 19 k unbalanced			
Controls	Power, Gain A, Gain B, Channel A Input Gain (0 dB / 12 dB / 24 dB / 36 dB) LF Mode (Ext Sub / Norm / DEEP™), HF Mode (Flat / Vocal Boost), Front LED (On / Off / Limit)		Power, Gain, LF Mode (Normal / DEEP™), Polarity (Normal / Reverse), Front LED (On / Off / Limit)	
Indicators	Power, Signal A, Signal B, Standby, Limit, Mic (24 dB and 36 dB settings)		Power, Signal, Standby, Limit	
Connectors	Balanced female XLR / 1/4" line/mic level input, Balanced female XLR / 1/4" line level input, Dual Balanced male, XLR full range line level out, Balanced male XLR "mix" out, Stereo RCA line level input, Remote gain control, Locking IEC power connector		Dual balanced female XLR / 1/4" line level input, Dual Balanced male XLR full range line level out, Remote gain control, Locking IEC power connector	
Cooling	On demand, 50 mm variable speed fan			
Amplifier Protection	Thermal limiting, Output overcurrent, Overtemperature muting, GuardRail™			
Transducer Protection	Thermal limiting, Excursion limiting			
AC Power Input	Universal power supply 100-240 VAC, 50-60 Hz			
AC Power Consumption	100 VAC, 2.3 A, 120 VAC, 2.01 A, 230 VAC, 1.13 A			
1/8 Power				
Enclosure	15 mm painted birch plywood			
Finish	Black textured paint			
Grille	Black powder coated 16 gauge steel			
Dimensions (H x W x D)	26" x 15" x 15.4" 660 mm x 381 mm x 391 mm	32.1" x 17.5" x 15.2" 816 mm x 445 mm x 386 mm	43.1 x 18.5" x 16.8" 1094 mm x 470 mm x 427 mm	20.3" x 23.4" x 29.9" w/casters 516 mm x 595 mm x 761 mm w/casters
Weight (Net)	49 lb (22.2 kg)	64 lb (29 kg)	87 lb (39.5 kg)	93.6 lb (42.5 kg) w/casters
Available Accessories	KW SUS Kit 122, KW122 Cover KW M10 Kit	KW152 Cover, KW M10 Kit	KW153 Cover, KW M10 Kit	KW181 Cover

<sup>1</sup> For comparison purposes and in accordance with common industry practice, maximum peak SPL specifications are theoretical calculations based upon transducer sensitivity and peak available amplifier power.

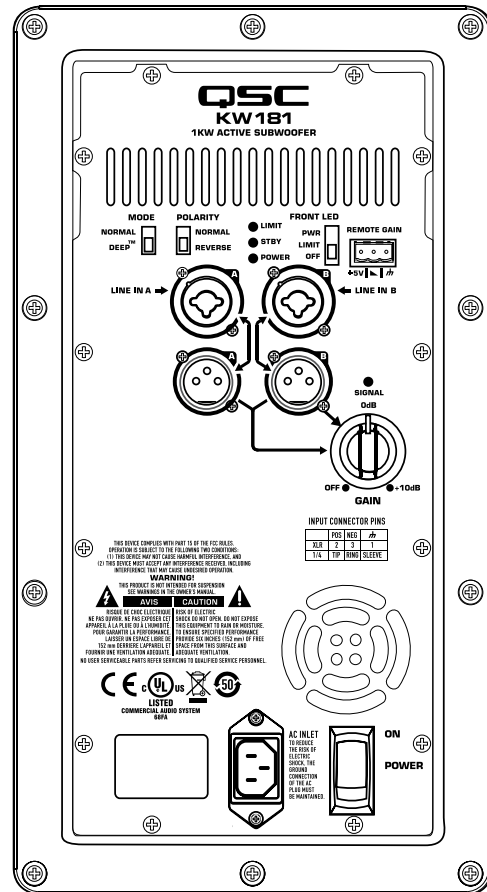
<sup>2</sup> Independent of limiters and driver protection circuits.

Specifications subject to change without notice.

# Amplifier Modules / Applications



KW122 | KW152 | KW153



KW181



KW122 on speaker stand with Tilt-Direct™ engaged for 7.5 degree down-angle.



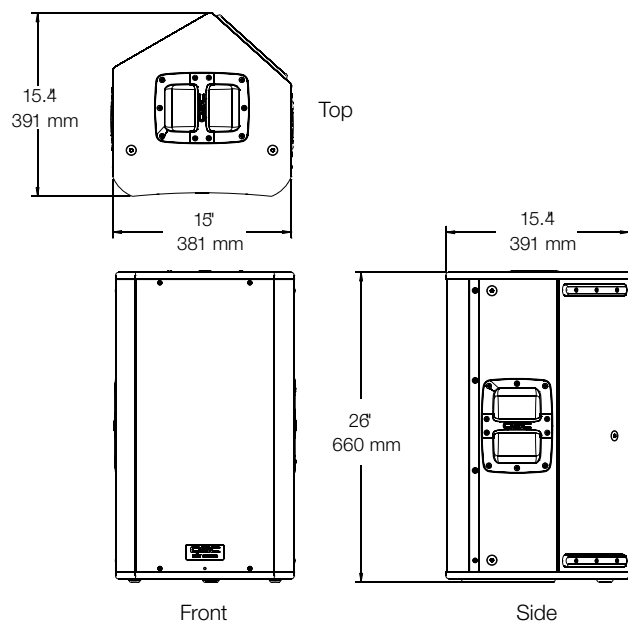
KW122 in floor monitor position.



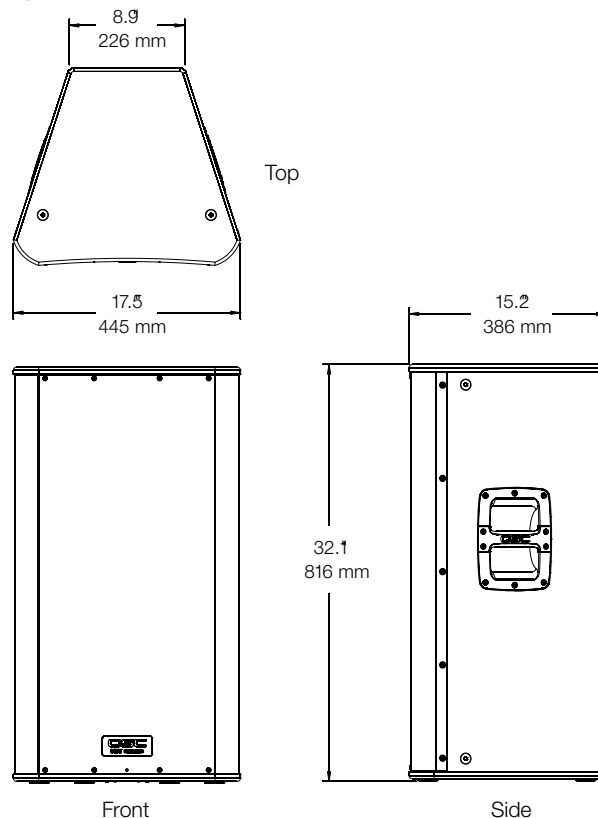
KW122 over KW181, using KW Series speaker pole (included with KW181).

# Dimensions

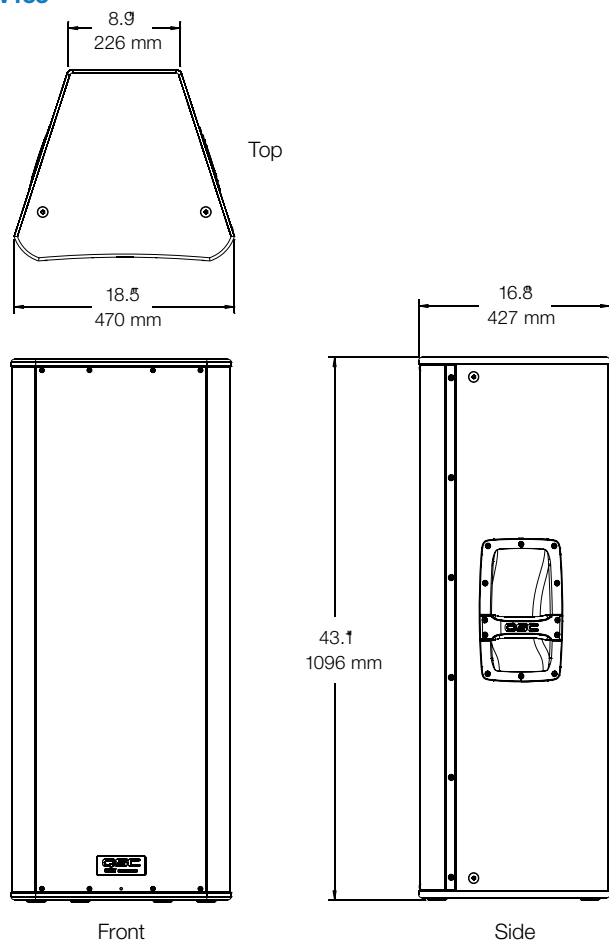
## KW122



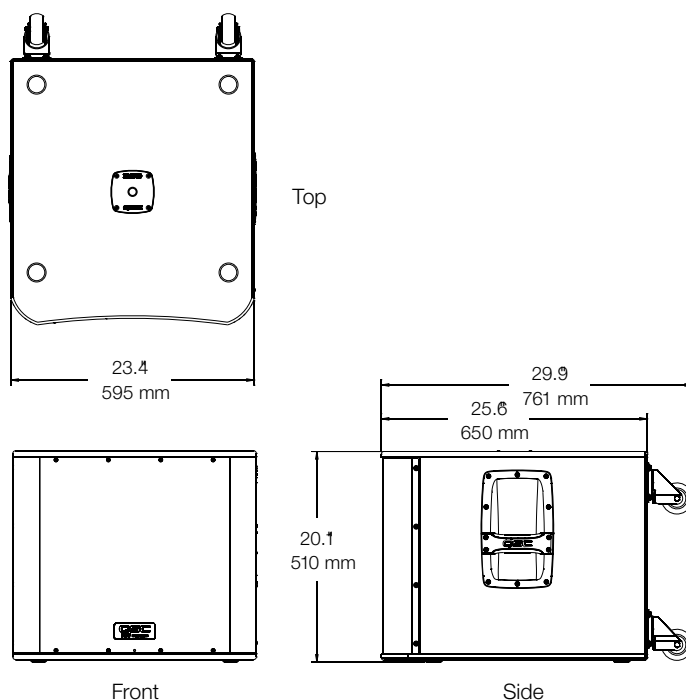
## KW152



## KW153



## KW181



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