

## DATA SHEET

# SP510A MULTI-LOCATION SPEAKER SYSTEM

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Convention Centers  
Correctional Facilities  
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**Octasound®**  
S O U N D A B O V E A L L



### FULL FIDELITY - FOR BOTH VOICE AND MUSIC

The KDM SP510A is a full fidelity (50 Hz to 15 kHz) Multi-location Speaker System. The KDM SP510A tuned port enclosure contains a highly efficient 8" woofer matched to two compression horns and drivers. The frequency spectrum of the woofer and horns is determined by an internal crossover network that is optimized to maximize performance. This combination ensures full fidelity reproduction from an extremely compact multi-location speaker system.

### HIGH SENSITIVITY - 97 dB PER WATT PER METER

The KDM SP510A is extremely sensitive with a Sound Pressure Level (S.P.L.) of 97 dB per watt at 1 meter. As a result, very little amplifier power is required to obtain the required sound pressure levels. At maximum RMS input power the KDM SP510A can produce 118 dB S.P.L. at one meter.

### HIGH POWER HANDLING - 125 WATTS RMS / 250 WATTS PEAK

The KDM SP510A can withstand input power of 125 watts RMS. The KDM SP510A also contains a built-in, self -resetting thermal protective circuit. This protects the high frequency drivers from excessive and distorted (10% T.H.D.) input levels.

### WIDE COVERAGE AREA - 180° X 120°

The KDM SP510A provides coverage over a 180° Horizontal and 120° Vertical plane. These wide dispersion characteristics will permit a large area to be covered by a single KDM SP510A.

### SMALL AND COMPACT - 10 INCHES HIGH x 12¼ INCHES DEEP / 24 LBS

The KDM SP510A is only 10 inches (25.4 cm) high x 12¼ inches (31.1 cm) deep and weighs 24 lbs (10.9 kg). The KDM SP510A can be installed in low ceiling areas and close to lights without casting shadows as well as mounted on walls with very little protrusion from the wall. The low weight permits suspension using readily available hardware such as closed link chains, wire rope, etc. The combination of small dimensions and low weight permits the KDM SP510A to be shipped inexpensively.



## Technical Specifications

Frequency Response:	50 Hz to 15 kHz ± 10 dB (on axis) 55 Hz to 10 kHz ± 6 dB (on axis)
Optimum Power:	50 to 120 watts RMS total.
Power Handling:	125 watts RMS total, 250 watts peak, (Total Harmonic Distortion less than 10%)
Impedance:	8 ohms nominal.
Dispersion:	180° Horizontal, 120° Vertical. ± 6 dB Level 100 Hz to 10 kHz.
Sensitivity:	97 dB/watt/meter on axis, pink noise 100 Hz to 10 kHz averaged.
Maximum S.P.L.:	118 dB RMS / 121 dB Peak at 1 meter.

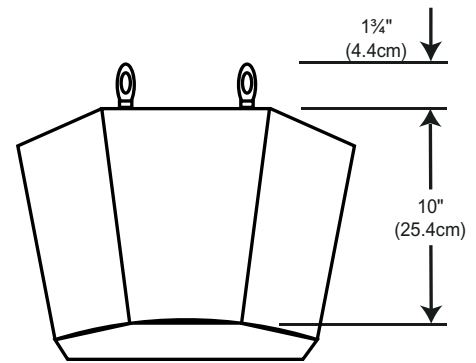
*Octasound Speakers and Sound System Modules are manufactured by the award winning company KDM Electronics Inc. With over 25 years of experience, KDM can design a turn-key sound system to meet or exceed your sound requirements.*

by KDM Electronics

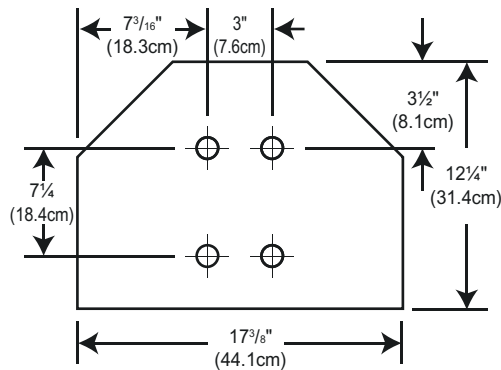
# SP510A MULTI-LOCATION SPEAKER SYSTEM

## Physical Specifications

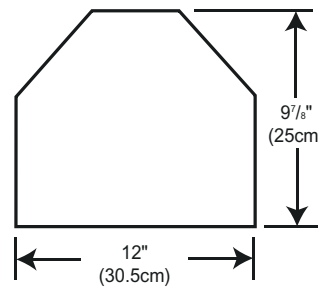
Temperature Range:	-10°C to 55°C (14°F to 131°F)
Humidity Range:	0% to 80% Non Condensing
Dimensions:	See Diagrams (Not to Scale, Tolerance $\pm 1/4"$ )
Weight:	29 lbs (13.2 kg)
Material:	Exterior Treated Wood Composite Panel
Mounting Hardware:	Top Panel: Four 1½" Eye Nuts, ¾" I.D. Eye ¼ x 20 Thread Rear Panel: Four 1½" Eye Nuts, ¾" I.D. Eye ¼ x 20 Thread
Shipping Weight:	38 lbs (17.2 kg)
Shipping Dimension:	20" (50.8cm) L x 13" (33cm) W, x 14" (35.6cm) H



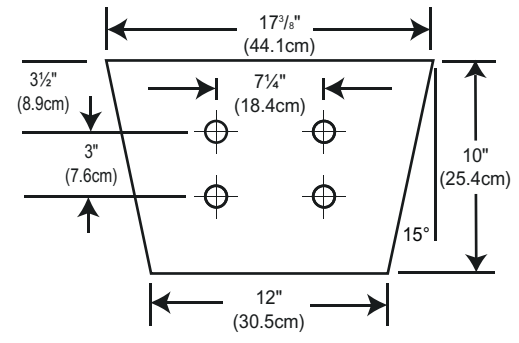
Front View



Top View and Mounting Hardware Dimensions



Bottom View



Rear View and Mounting Hardware

## Architects and Engineers Specifications

The loudspeaker shall be a two-way speaker system containing a 8" (203 mm) diameter, low frequency driver, with a 1½" (38 mm), 8 ohm voice coil, and a magnet weight of 28 ounces (794 g) minimum, plus, two high frequency 5" x 5" (130 mm x 130mm) wide dispersion exponential compression horns & drivers with a 1" (25 mm) diameter voice coil and a barium ferrite magnet that weighs 10 ounces (290 g) minimum. The voice coil shall be manufactured of high temperature wire wound on Nomex® former to withstand high operating temperatures. The horns and drivers shall have a 1" (25 mm) throat diameter. These components shall all be contained within a tuned port bass enclosure. The sensitivity shall be 97 dB per watt per meter. The overall speaker system shall contain one crossover network that separates the low and high frequency spectrum at a crossover point of 2 kHz  $\pm 15\%$ . The internal crossover shall have a built in thermal protective circuit to prevent damage from occurring at power levels up to 250 watts of peak power. The overall speaker system shall be capable of withstanding power levels up to 125 watts RMS, with a total harmonic distortion of less than 10%. The total impedance of the speaker system shall be 8 ohms nominal. The speaker shall contain a perforated metal speaker grill to protect the bass speaker, and be manufactured from medium density fiber board (MDF) painted with a durable industrial textured finish. All exposed metal must be aluminum, plated or painted. Four 1½ inch eye nuts shall be provided for mounting on the top cover and four 1½ inch eye nuts shall be provided for mounting on the rear panel. The complete speaker shall weigh a maximum of 24 lbs. (10.9 kg), with the following maximum dimensions: top width 17 3/8" (44.1 cm), bottom width 12" (30.5 cm) and height 10" (25.4 cm) + 1 3/4" (4.4 cm) for mounting hardware.

The loudspeaker shall be KDM Electronics Incorporated Model SP510A.

## Ordering Information

SP510A - XX (where XX specifies color). WH = White Low Sheen Splatter Finish (Standard).

Other colors and Veneers available upon request. Example: BK = Black, OV = Oak Veneer

KDM Electronics Incorporated reserves the right at any time to make changes in product design, components and specifications, as may be warranted by progress in technology.....



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