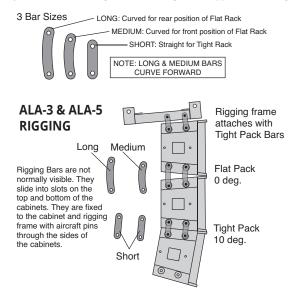
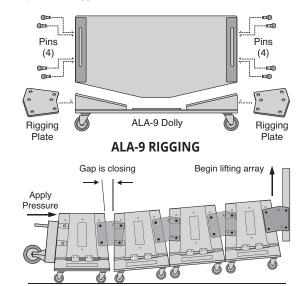
# Apogee ALA-3, ALA-5, and ALA-9 Loudspeaker Rigging Components

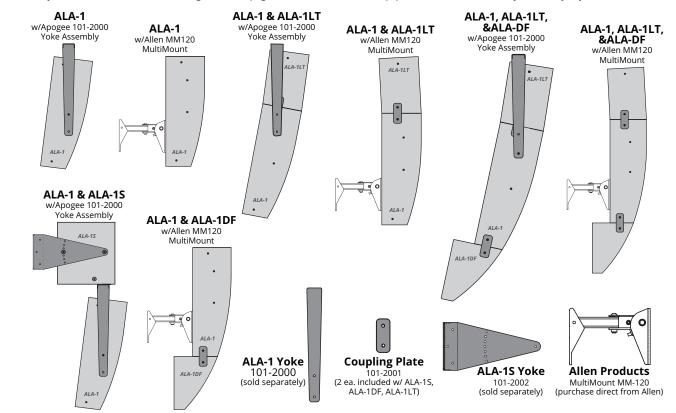
Apogee Linear Array loudspeakers use a simple and effective rigging system that is both quick and easy to assemble. The enclosures are joined together with various lengths of connecting bars to achieve the desired angular relationship—either a flat-pack or a tight-pack formation. The bars are secured in place by aircraft grade retention pins. The configurations can be altered in seconds, without any special skills or equipment. The rigging system is equally effective for stacking enclosures on ground supports when augmented with optional outrigger bars.





# Apogee ALA-1 Series Loudspeaker Configurations/Rigging Components

The ALA-1 Series Linear Array System can be mounted in a variety of positions and configurations (see below examples, side views). The flexibility of the system allows the user to set up the exact sound solution desired to fit specific needs. Using Apogee supplied Coupling Plates, speaker elements of the ALA-1 system can be assembled and, using either an Apogee Yoke or other vendor's equipment, mounted to fit neatly into nearly any environment.







In many cases, an ALA system can eliminate or reduce the need for delay speakers, and/or critical placement of microphones to achieve adequate gain levels. Apogee's ALA Series will transform your most troublesome shows and installations into "another job well done."

Apogee Sound's award-winning Linear Array loudspeakers differ significantly from conventional sound systems. ALA models allow you to achieve unprecedented directional control and phenomenal off-axis rejection. Capable of precisely focusing the sound where it's needed, ALA Series loudspeakers are especially effective in difficult acoustic environments but equally potent in outdoor use. Each model, coupled with the ease of their unique rigging systems, brings Linear Array Technology to a new level of versatility and effectiveness.

# Why a Linerar Array?

A properly designed linear array can have enormous benefits in many applications, especially in problematic venues. The Apogee Linear Array Series is an intelligent and practical implementation of both the line array principle and the doublet principle. Each ALA model behaves similarly, but is scaled in size to perform optimally in a specific range of applications. A Linear Array behaves quite differently from a conventional loudspeaker in that each enclosure is really a modular component of a complete system. In the ALA-1, each unique module is designed to perform a specific function. In the other ALA models, identical modules are used in multiples in order to obtain the desired power and coverage needed for larger venues.

The primary benefits of the linear array are the extremely narrow vertical coverage angle of each module and the seamless acoustic transition between multiple modules. Low frequency pattern control is obtained by the "line array effect" which occurs when multiple units are used together.



# ALA-3 Acoustic Linear Array Loudspeaker

The ALA-3 is the most compact model of the ALA Series. Intended for applications that require clarity, power, and precise directivity, especially in the vocal range, the ALA-3 is ideally suited for theaters, hotel ballrooms, and houses of worship. Multiple ALA-3 loudspeakers, combined in tandem with subwoofers, will comprise a formidable system.

#### FNGINFFRING DATA

#### Format:

Bi-amped/Two-way Line Array/ Electronically-Coupled

# Dispersion:

ALA-3: Horiz.: 60° x Vert.: 10° ALA-3W: Horiz.: 90° x Vert.: 10°

# 65 Hz to 17.5 kHz (+/- 3 dB)

Frequency Response (1m on axis):

# Sensitivity:

HF: 102 dB LF: 110 dB

#### Max. SPL (@1m): 130 dB cont /136 dB neak

Nominal Impedance: LF: 4 ohms HF: 4 ohms

# Max. Power Handling:

LF: 600W cont /2400W peak HF: 150W cont /600W neak

# Driver Complement:

Dual 10" Cone Type; Dual Horn-Loaded, Fluid Cooled 2.5" VC, 1" Exit Compression Type

### Rigging Hardware: Rigging Bars (included)

# Processor Model:

Apogee Model DLX24

front: 35"(889mm) W x 14.5"(368mm) H

### rear: 29-1/3"(745mm) W x 12-1/3"(313mm) H

depth: 13"(330mm) D weight: 95 lb. (43 kg)

# ALA-5 Acoustic Linear Array Loudspeaker

The ALA-5 is a modestly sized and easily handled loudspeaker system. Eminently versatile, it provides a very wide frequency response and enough power output for concerts, musical theatre, industrial settings, theme parks, and many more related applications. The ALA-5 features very low distortion, and very high directivity to meet the most demanding applications of any professional large scale

### ENGINEERING DATA

#### Format:

Bi-amped/Two-way Line Array/ Electronically-Coupled

# Dispersion:

ALA-5: Horiz.: 45° x Vert.: 10° ALA-5W: Horiz.: 90° x Vert.: 10°

## Frequency Response (1m on axis):

50 Hz to 17.5 kHz (+/- 3 dB)

### Sensitivity: HF: 101 dB LF: 110 dB

Max. SPL (@1m):

# 132 dB cont./138 dB peak

Nominal Impedance:

## LF: 4 ohms HF: 4 ohms Max. Power Handling:

HF: 300W cont./1200W peak

Loaded, Fluid Cooled 2" VC, " Exit Compression Type

# Rigging Hardware:

LF: 1200W cont./4800W pea

# Driver Complement:

Dual 15" Cone Type; Dual Horn-

Rigging Bars (included)

# Processor Model:

Apogee Model DLX24

# **Dimensions:**

front: 43.3"(1100mm) W x 18.5"(468mm) H

# rear: 36.5"(928mm) W x

15.75"(400mm) H

depth: 15.5"(393mm) D

**weight:** 141 lb. (64 kg)

# ALA-9 Acoustic Linear Array Loudspeaker

The tri-amped ALA-9 is the largest in the ALA Series family of loudspeakers. Its wide dynamic range makes it ideally suited for applications that may require extremely high SPL capability such as rock concerts, sporting events, and outdoor pageantry. You will find the ALA-9 loudspeakers installed in some of the most prestigious arenas and stadiums throughout the world.

## ENGINEERING DATA

# Format:

Tri-amped/Three-way Line Array/ Flectronically-Coupled

### Dispersion: ALA-9W: Horiz.: 90° x Vert.: 10°

Frequency Response (1m on axis): 45 Hz to 17 5 kHz (+/- 3 dB)

# Sensitivity:

LF:100 dB MF:108 dB HF:112 dB

# Max. SPL (@1m):

136 dB cont./142 dB peak Nominal Impedance:

# LF: 8 ohms x 2 MF: 4 ohms Max. Power Handling:

LF: 1200W cont./4800W pea MF: 600W cont./2400W peak HF: 450W cont./1800W peak

Cone Type, Three Horn-Loaded, Fluid Cooled 4" VC, 2" Exit Compression Type

Driver Complement:

# Rigging Hardware:

Rigging Bars/Plates (included)

Dual 15" Cone Type, Dual 10"

# Processor Model:

Apogee Model DLX24

# **front:** 47"(1194mm) W x

24"(610mm) H rear: 47"(1194mm) W x

# 20.125"(577mm) H depth: 22.75"(577mm) D **weight:** 255 lb. (116 kg)

# designing and installing with line arrays.

ALA-1 Series | Acoustic Linear Array Loudspeaker System The ALA-1 Series is designed to provide extremely high fidelity, controlled pattern, and uniform coverage in small- and medium-sized venues. This easy to use system takes the difficulty out of

The main array, **ALA-1**, incorporates four metal-alloy woofer cone drivers featuring the pioneering voice-coil guidance system by NEAR, utilizing a unique Ferrofluid in the magnet gap.

The Long-Throw module, **ALA-1LT**, increases the array length by 50%, focusing this extra energy to augment and extend the performance of the ALA-1 for longer distances. Both models (ALA-1 and ALA-1LT) also use horn-loaded high frequency metal dome drivers for added clarity and detail in the upper ranges, without the harshness of traditional high-frequency units.

The Down-Fill module, ALA-1DF, increases vertical coverage below the main array greatly improving articulation in front row nearfield listening areas, often eliminating the need for stage front fill speakers.

When the application requires high-output low-frequency energy, the ALA-1S iSubwoofer is a perfect partner to the rest of the ALA system. A neodymium driven 12-inch woofer provides high output and extended bass for music and video productions.

Its unique mounting bracket allows the full ALA-1 Line Array to be suspended and tilted. Combined with the other ALA modules, the full system represents the most cost-effective way to achieve a true professional-quality system with unmatched realism.



# ALA-1 SERIES COMPONENTS

# ALA-1 Loudspeaker

ENGINEERING DATA

#### Format: Passive/Two-way Line Array

# Coverage Angles:

Vertical: Graduated 10° up, 35° down

# Frequency Response (1m on axis): Sensitivity (1W @ 1m):

Max. SPL (@1m):

Nominal Impedance:

Max. Power Handling (cont./peak):

## Barrier Strip, #8 Screw Type **Driver Complement:**

(4) 6.5" metal-alloy cone drivers. (12) 1" horn-loaded metal diaphragm

Rigging Hardware:

Input Connectors:

1101-2000 Yoke (sold separately), Allen Products MM-120

# Options/Accessories:

LX24 Digital Controlle Stand Fitting for Yoke (140-05)

#### Dimensions: **height:** 27.625"(702mm) H

width: 14.125"(359mm) W depth: Top-9.875"(251mm) D Bottom-6.125"(155mm) D

weight: 39 lb. (17.7kg)



# **ALA-1LT**

# Long-Throw Loudspeaker

ENGINEERING DATA

Passive/Two-way Line Array

Coverage Angles

Vertical: Graduated 15° up, 35° down

## Frequency Response (1m on axis): 64 Hz to 18 kHz + 3 dF Sensitivity (1W @ 1m):

# Max. SPL (@1m):

Nominal Impedance:

Max. SPL (@1m):

when used w/Al A-1

Input Connectors:

**Driver Complement:** 

119 dB cont./128 dB peak

Barrier Strip, #8 Screw Type

(6) 1" horn-loaded metal diaphragm

Max. Power Handling (cont./peak):

#### Input Connectors: Barrier Strip, #8 Screw Type

Driver Complement: (2) 6.5" metal-alloy cone drivers,

Options/Accessories:

Dimensions:

DLX24 Digital Controller

height: 13.5"(343mm) H

weight: 14 lb. (6.4 kg)

width: 14.125"(359mm) W

depth: Top- 11"(279mm) D

Bottom- 2 75"(70mm) D

# Rigging Hardware:

two units included w/ALA-1LT)

(6) 1" horn-loaded metal diaphragm

# Options/Accessories:

DLX24 Digital Controller Dimensions:

#### height: 14.125"(359mm) H width: 14 125"(359mm) W

depth: 9.875"(251mm) D weight: 24 lb. (10.9 kg

height: 13.5"(343mm) H

weight: 14 lb. (6.4 kg)

width: 14.125"(359mm) W

depth: Top- 11"(279mm) D

Bottom- 2.75"(70mm) D



# **ALA-1DF**

# Down-Fill Loudspeaker ENGINEERING DATA

Format:

Passive/Line Array

Subwoofer

40 Hz to 140 kHz ± 3 dB

Coupled

ENGINEERING DATA

Dual-Vented, Single Amp, Electronically

Frequency Response (1m on axis):

Coverage Angles:

#### Rigging Hardware: Horizontal: 130° Vertical: Graduated 15° up. 50° down 101-2001 Coupling Plates (two units included w/ALA-1DF)

**ALA-1S** Sensitivity (1W @ 1m):

Max. SPL (@1m):

122 dB cont./128 dB peak Nominal Impedance:

# Max. Power Handling (cont./peak).

Input Connectors: Barrier Strip, #8 Screw Type

# Driver Complement:

(1) 12" Weatherproof Cone Woofer w/Neodynium Magnet Structures

# Rigging Hardware:

101-2001 Coupling Plates included w/AI A-1S

# Ontions/Accessories:

DLX24 Digital Controller,

## Dimensions

Dimensions:

height: 17.875"(454mm) H width: 14 125"(359mm) W depth: 16.675"(4221mm) D

weight: 33 lb. (15.8 kg)