



Technology Inside



# K-LA28-MA/SP & K-LA118-DSP Active DSP-controlled Line Array

K-LA28-MA is an active DSP-controlled line array speaker, and K-LA28-SP is a passive line array speaker. Innovative Master and Slave concept, every combo consists of 1 unit K-LA28-MA and 1 unit K-LA28-SP ("one plus one package"), and different scales of system is comprised of different quantities of package.



## **IMPORTANT FEATURES**



## Innovative BrainCore™ technology to improve the audio performance of the system

The innovative BrainCore™ technology and built-in powerful DSP processor improve the performance of the speaker. With Cort™ correction technology and Limita™ processing technology, the system works with safety and reliability and achieves supreme performance.



#### **Active Speaker DSP**

K-LA28-MA is built with 3 different presets. Users can choose the presets according to their needs via the buttons on the back panel.



#### **Advanced Cooling System**

Mould-opening customized heat sink with honeycomb structure enlarges the contact surface with air, and thus to improve the cooling efficiency.



#### **Automatic Standby 15mins**

To save power, the system will enter into standby mode automatically if without signal input for 15mins.



#### **PTV Technology**

PTV technology, by a connector installed between the driver and horn, improves the mutual interference of phase and uniformity of sound field.



#### **Class D Amplifier**

K-LA28-MA adopts customized Class D Amplifier together with switch mode power supply technology, which ensure the system for high efficiency, exquisite and compact outlook, advanced cooling effect and high quality.



#### **Wood Horn Material**

The horn adopts high-class excellent wood with seamless connection to ensure low resonance and optimized smooth frequency response.



## **Solid Wood Construction**

Optimized and compact CNC cabinet made of excellent wood is solid, waterproof and light-weight, very suitable for touring application.



#### Integrated Flyware

Integrated installation accessories built in the cabinet make K-LA28-MA/SP in installation flexibility.



#### **Customized ProDriver**

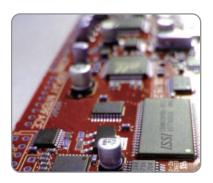
Latest ferrite speaker technology and customized driver from Beyma ensure very clean and clear sound and impressive sound dynamic.





## Innovative BrainCore™ technology to improve the audio performance of the system

The innovative BrainCore™ technology and built-in powerful DSP processor improve the performance of the speaker. With Cort™ correction technology and Limita™ processing technology, the system works with safety and reliability and achieves supreme performance.





## Active Speaker DSP

3 presets (Linear, HFX, W/SUB) in full range loudspeaker are available for the users to choose via the buttons on the back panel. USB port is not available for the users.





## **Class D Amplifier**

K-LA28-MA adopts customized Class D Amplifier together with switch mode power supply technology ,which ensures the system for high efficiency, exquisite and compact outlook, advanced cooling effect and high quality.





## K-LA28-MA

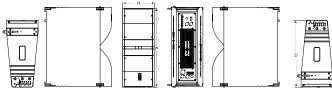
K-LA28-MA can be used in Applications like Live sound for rental application for small and mid-size venues, like roadshows, parties, company event, etc and Permanent installation like ballroom, conference room, coffee shop, lounge bar,etc.

The HF driver of K-LA28-MA is customized Beyma driver with composite membrane (1.75"voice coil), and the LF/MF driver is customized Beyma 8"driver (2"voice coil).

User Selectable 3 presets (Linear, HFX, W/SUB) in K-LA28-MA are available for the users to choose according to different environments/venues and music styles.

In application, 1 unit of K-LA28-MA should work together with 1 unit of K-LA28-SP. This one-driven-one working mode can fulfill paralleling of the amplifier signal by the 8-pin power connector on the back panel.

K-LA28-MA can be suspended vertically. The integrated hardware with innovative fast lock mechanics built-in to the cabinet with 9.5mm high intensity pins make installation easy and convenient. The system can be combined in modularization according to the coverage angle of place, which can meet the requirements of different applications. For those places where the system can not be flied, there are customized frames suitable for both ground stacking (maximum 4 cabinets) or stacking on the stand(maximum 3 cabinets) to meet different requirements of installation and reinforcement environment.



Dimension(W×H×D): 590×236×500mm

#### **FEATURES**

- Customized driver from Beyma
- PTV phase plug design for an extremely precise dispersion, HF horn design ensures even coverage and optimized for smooth frequency response
- Innovative Master and Slave concept
- Built in DSP with 96KHz signal sampling frequency, 56bit precision
- Standby mode automatically if without signal input for 15mins
- Class D amplifier
- Advanced cooling system in the driver
- Optimized and compact light weight cabinet design
- CNC cabinet made of excellent wood
- Comprehensive accessories suitable for different applications





















#### **SYSTEM CONFIGURATION**

- K-LA28-SP full range loudspeaker
- K-LA-DSP series subwoofer, It can be flied or stacked with K-LA118-DSP in modularization



#### **SPECIFICATION**

Type Active DSP-controlled full range loudspeaker

**Application** 1pcs K-LA28-MA together with 1pcs K-LA28-SP

**Frequency Response** 60Hz-20KHz (-6dB anechoic chamber)

**Maximum Calculated** 134dB SPL/1M

LF/MF Driver Customized Beyma ferrite driver, 2"voice coil

**HF Driver** Customized Beyma ferrite driver, 1"exit, 1.75"voice coil 100°

**Horizontal Coverage** Angle (Symmetrical) **Vertical Coverage** 

Depend on the amount of the speaker Angle (Symmetrical) and curvature of the line array

**AMPLIFIER Amplifier Circuitry** 

Class D Power(RMS standards) 1600W Frequency Response 20Hz-20KHz(±0.5dB)

(1W 8Ω 2ch) Intermodulation Distortion

< 0.05% **Total Harmonic Distortion** < 0.05% Protection

DC protection, short circuit protection, overheat protection, input overload protection, output overload protection, soft startup protection, overvoltage protection, undervoltage protection

**Cooling System** Cooling with fans

**Processor** 96KHz signal sampling frequency,

56bit precision **Presets** Linear, HFX, W/SUB Crossover Controlled by DSP

Output/Input Signal Input

1× female XLR Signal Output 1× male XLR Link (K-LA28-MA/SP) 1×8pin speakon

LF:  $8\Omega(+3, -3)$ MF:  $8\Omega(+2, -2)$ HF:  $8\Omega(+1, -1)$ Power connector Power connector

**Power Input Power Output** Working Voltage 230V 50Hz / 120V 60Hz

Cabinet

0°, 2°, 4°, 6°, 8°, 10° **Angle Adjustment Cabinet Material** CNC made of excellent wood Cabinet Color

Black is standard and default color. Consult with Audiocenter sales team for other customized colors

Dimension(W×H×D) 590×236×500mm

**Net Weight** 25.0Kg

## K-LA28-SP

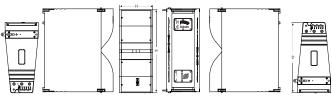
K-LA28-SP can be used in Applications like Live sound for rental application for small and mid-size venues, like roadshows, parties, company event, etc and Permanent installation like ballroom, conference room, coffee shop, lounge bar,etc.

K-LA28-SP, an active crossover line array speaker, is designed to meet the high requirements of touring performance, rental and fixed installation.

The HF driver of K-LA28-SP is customized Beyma driver with composite membrane (1.75"voice coil), and the MF/LF driver is customized Beyma 8" driver (2"voice coil).

In application, 1 Unit of K-LA28-SP should work together with 1 Unit of K-LA28-MA. This one-driven-one working mode can fulfill paralleling of the amplifier signal by the 8-pin power connector on the back panel.

K-LA28-SP can be suspended vertically. The integrated hardware with innovative fast lock mechanics built-in to the cabinet with 9.5mm diameter highly durable pins. The system can be configured in modularization according to the venues. Same frame can be either used for flying the arrays or for ground stacking the arrays (We suggest 4pcs maximum for stacking). To meet different demands, by use of three-rubber feet sustain frame and coupling bar, the system also can be stacked (maximum 4 units).



Dimension(W×H×D): 590×236×500mm

## **FEATURES**

- Customized drivers from Beyma
- PTV phase plug design for an extremely precise dispersion, HF horn design ensures even coverage and Optimized for smooth frequency
- High-efficient cooling system of the driver
- Optimized and compact elegant premium design cabinet
- CNC cabinet made of excellent wood
- Comprehensive accessories suitable for different applications













#### **SYSTEM CONFIGURATION**

■ K-LA28-MA active DSP-controlled full range loudspeaker

#### **SPECIFICATION**

Active crossover line array speaker 1pcs K-LA28-SP together with 1pcs K-LA28-MA **Application System** 

**Frequency Response** 60Hz-20KHz (-6dB anechoic chamber)

**Rated Power** LF: 400W HF: 50W (AES standard) **Maximum SPL** 134dB 100°

**Horizontal Coverage** Angle (Symmetrical) Vertical Coverage Angle Depend on the amount of the speaker

(Symmetrical) and curvature of the line array LF Driver Customized Beyma ferrite driver, 2" voice coil, 200W(AES)

**HF Driver** Customized Beyma ferrite driver 1"exit, 1.75" voice coil, 50W(AES)

Link (K-LA28-MA/SP) 1×8pin speakon LF:  $8\Omega(+3, -3)$ MF:  $8\Omega(+2, -2)$ 

HF: 8Ω(+1, -1)**Angle Adjustment** 0°, 2°, 4°, 6°, 8°, 10° **Cabinet Material** CNC made of excellent wood

**Cabinet Color** Black is standard and default color. Consult with Audiocenter sales team

for other customized colors 590×236×500mm

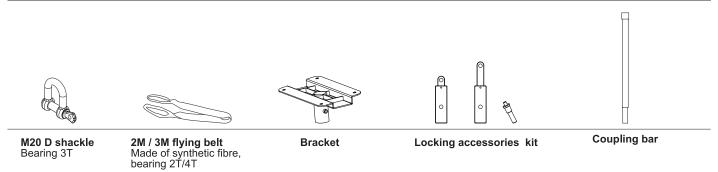
Dimension (W×H×D) 19.0Kg

**Net Weight** 

## **CONNECTION DIAGRAM**

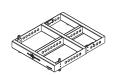


## **ACCESSORIES**





Three-feet stand Bearing 80Kg



Frame for flying and ground stacking



Flightcase For 2 cabinets, with 100mm wheels

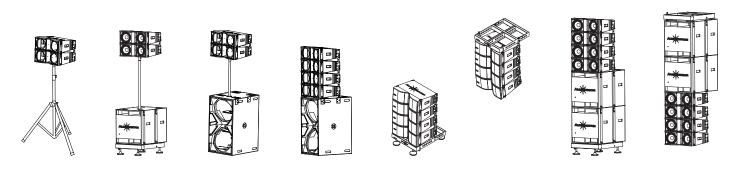


Flightcase For 4 cabinets, with 100mm wheels



Rain bag(customized)

## INSTALLATIONS





## K-LA118-DSP

K-LA118-DSP, an active DSP-controlled subwoofer, is designed to meet the high requirements of touring performance, rental and fixed installation.

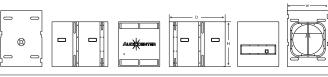
The LF driver of K-LA118-DSP is customized Audiocenter 18" driver (4"voice coil).

User Selectable 3 low-pass filters (80Hz, 100Hz, 120Hz) in K-LA118-DSP are available for the users to choose according to different environments and music styles.

K-LA118-DSP is a perfect match for all Audiocenter full range speakers, extending band width of frequency response and delivering powerful, impressive, punchy bass sound.

The K-LA118-DSP is with half formula double opening design and dual LF output. With 6th order band pass filter function, the cabinet design of K-LA118-DSP can decrease HF interference and improve LF performance. K-LA118-DSP is novel and innovative product with high technology.

K-LA118-DSP is combined in modularization, which is suitable for any performance venues. It can also be used together with other speakers of other brands.



Dimension(W×H×D): 590×639×800mm

#### **FEATURES**

- Hi end digital controller on board(DSP) with 96KHz signal sampling frequency, 56bit precision
- Standby mode automatically if without signal input for 15mins
- Class D amplifier
- Advanced cooling system in the driver
- CNC cabinet made of excellent wood
- Comprehensive accessories suitable for different applications















#### SYSTEM CONFIGURATION

■ K-LA28-DSP, K-LA28-MA/SP full range loudspeaker



#### **SPECIFICATION**

Туре	Active DSP-controlled Compact	
Frequency Response (-6dB anechoic chamber)	32Hz-150Hz	

**Maximum Calculated** 137dB

SPL/1M

Customized Audiocenter ferrite LF Driver driver, 4"voice coil

AMPLIFIER

**Amplifier Circuitry** Class D 1600W Power(RMS standards) Frequency Response (1W 8Ω 2ch) 20Hz-6KHz(±0.5dB)

**Intermodulation Distortion Total Harmonic Distortion** 

**Protection** 

< 0.05% < 0.05%

DC protection, short circuit protection, overheat protection, input overload protection, output overload protection, soft startup protection, overvoltage protection, undervoltage protection

Cooling with fans **Cooling System** 

**DSP Processor** 

96KHz signal sampling frequency,

56bit precision 80Hz, 100Hz, 120Hz **Presets** Controlled by DSP Crossover

Output/Input

1×female XLR Signal Input 1×male XLR **Signal Output** Power connector **Power Input** 230V 50Hz / 120V 60Hz **Working Voltage** 

Cabinet

CNC made of excellent wood **Cabinet Material** Black is standard and default color. Cabinet Color Consult with Audiocenter sales team

for other customized colors

590x639x800mm **Dimension**(W×H×D)

63.0Kg **Net Weight** 

## ■ K-LA28-MA/SP & K-LA118-DSP Specifications

SPECIFIC	ATIONS	K-LA28-MA	K-LA28-SP	K-LA118-DSP
Frequency (-6dB anech	Response loic chamber)	60Hz-20KHz		32Hz-150Hz
Horizontal (Symmetric	Coverage Angle al)	100°		1
Vertical Co (Symmetric	overage Angle al)	Angle Depend on the amount of the speaker and curvature of the line array		1
Maximum Continuous		128dB		131dB
Calculated SPL/1M	Program	131dB		134dB
	Peak	134dB		137dB
Drivers	HF	Customized Beyma ferrite driver,1.75" voice coil,1" exit		/
	MF	Customized Beyma ferrite driver, 2" voice coil		1
	LF			Customized Audiocenter ferrite driver, 4" voice coil
Crossover	and Slope	Controlled by DSP	/	Controlled by DSP
Signal Input / Signal Output		Female XLR input, male XLR output	/	Female XLR input, male XLR output
Link (K-LA28-MA/SP)		8pin speakon link		/
Power Input / Output Connectors		Power connector	/	Power connector
Working Voltage		230V 50Hz / 120V 60Hz	1	230V 50Hz / 120V 60Hz
DSP				
Processor		96KHz signal sampling frequency, 56bit precision	/	96KHz signal sampling frequency, 56bit precision
presets		Linear, HFX, W/SUB	1	80Hz, 100Hz, 120Hz
AMPLIFIER	t			
Amplifier		Class D	1	Class D
Power(RMS standards)		1600W	1	1600W
Frequency Response (1W 8Ω 2ch)		20Hz-20KHz(±0.5dB)	1	20Hz-6KHz(±0.5dB)
Intermodulation Distortion (20Hz-20KHz, half power)		<0.05%	1	<0.05%
Total Harmonic Distortion (20Hz-20KHz, rated power $8\Omega$ )		<0.05%	1	<0.05%
Cooling		Cooling with fans	/	Cooling with fans
Protection	DC protection	√	/	√
	Short circuit protection	√	1	√
	Overheat protection	V	1	√
	Output overload protection	√	1	√
	Soft startup protection	√	1	√
	Overvoltage protection	V	I	√
	Undervoltage protection	√	1	√
CABINET				
Cabinet High density Russian birch plywo		ensity Russian birch plywood CNC ma	ade	
Optional Accessories		Flightcase with 100mm wheels / Durable rain bag / D shackle / Stainle		
Dimensions(W×H×D)		590×236×500mm		590×639×800mm
Net Weight		25.0Kg	19.0Kg	63.0Kg
Technical Support and After-sales Service		Global application support team, EASE GLL files		