TAIDEN

Power Amplifier and Speaker

Power Amplifier & Speaker

HPA-160A/02
Digital Audio Power Amplifier

Features

- Less heat, low working temperature, life span and reliability will be significantly improved.
- Energy saving and environmental protection, saving operating costs.
- Digital power amplifier + switching mode power supply, high efficiency, small size, light weight.
  Output power: 2×200 W (4 Ω/ 6 Ω)
                 2×160 W (8 Ω)
                 1×400 W (bridge/ constant voltage)
  Frequency response: 20 Hz～20 kHz (8 Ω, ±1 dB)
  THD: ≤0.04%
  S/N: ≥ 95 dB (A weighted, 20 Hz ~ 20 kHz)
- Wide operating voltage range: 100-240 VAC (±10%)
- Three modes: mono/ stereo/ bridge
- Two SPEAKON sockets for loudspeaker
- 1 balance Line In + 1 unbalance Line In, and 1 Line Out (all for 6.4 mm TRS jack)
- 1 RJ45 interface for connecting to Ethernet
- 1 USB for external digital audio input
- With RS232 interface for connecting to central control system
- The user can access the IP address of power amplifier from web browser to set parameters and view device status, e.g. compressor, equalizer, DRC, etc.
- Perfect protection functions: short circuit protection, over temperature protection, DC protection, etc.

Technical Specifications

Electrical

Power supply	100-240 VAC, 50/60 Hz
Rated power	2×200 W (4 Ω/ 6 Ω)
	2×160 W (8 Ω)
	1×400 W (8 Ω, Bridge)
	1×400 W (4 Ω, Bridge)
	1×400 W/100 V
	1×400 W/70 V
SNR	≥95 dB
Frequency response	20 Hz ~20 kHz (8 Ω, ±1dB)
Input impedance	20 kΩ (Balanced)
	10 kΩ (Unbalanced)
THD+N	≤0.04%
Crosstalk suppression	≥70 dB

Mechanical

Dimensions (h x w x d)	62 x 179 x 252 mm
Weight	1.7 kg
Color	Black (PANTONE 419 C)

Ordering Information

HPA-160A/02   Digital Audio Power Amplifier (2 channels, 200 W×2, constant pressure and fixed resistance, support central control, built in DSP audio processor, support web control and management (adjustable 5-band parametric EQ of microphone, PEQ, GEQ, DRC of output signal, amp output delay，support saving of scenes))

HPA-2016/04
Digital Audio Power Amplifier

Features

- Less heat, low working temperature, life span and reliability will be significantly improved.
- Energy saving and environmental protection, saving operating costs.
- Digital power amplifier + switching mode power supply, high efficiency, small size, light weight.
  Output power: 4×200 W (4 Ω/ 6 Ω)
  　　　　　　4×160 W (8 Ω)
  　　　　　　2×400 W (bridge/ constant voltage)
  Frequency response: 20 Hz～20 kHz (8 Ω, ±0.5 dB)
  THD: ≤0.04%
  S/N: ≥ 105 dB (A weighted, 20 Hz ~ 20 kHz)
- Wide operating voltage range: 100-240 VAC (±10%)
- Three modes: mono/ stereo/ bridge
- 1V and 0.7V gain for selection
- Four XLR audio input interfaces
- Four SPEAKON sockets for loudspeaker
- Perfect protection functions: short circuit, DC, over temperature protection, overload power control, temperature control, etc.
- Low noise high reliable temperature control fan

Technical Specifications

Electrical

Power supply	AC 100-240 V, 50/60 Hz
Rated power	4×200 W (4 Ω/ 6 Ω)
	4×160 W (8 Ω)
	2×400 W (Bridge)
	2×400 W/100 V
	2×400 W/70 V
SNR	≥105 dB
Frequency response	20 Hz ~20 kHz (8 Ω, ±0.5dB)
Input impedance	20 kΩ (Balanced)
	10 kΩ (Unbalanced)
THD+N	≤0.04%
Crosstalk suppression	≥70 dB

Mechanical

Dimensions (h x w x d)	45 x 480 x 295 mm
Weight	4.1 kg
Color	Black (PANTONE 419 C)

Ordering Information

HPA-2016/04	Digital Audio Power Amplifier (4 channels, 200 W × 4)

HPA-2045B/02   2 Channels Digital Audio Power Amplifier

Features

- Digital power amplifier + switching mode power supply, high efficiency, small size, light weight
- Wide operating voltage range: 100-240 VAC（±10%）, work below 100 VAC requires a reduction in use
- Less heat, low working temperature, life span and reliability will be significantly improved
- Energy saving and environmental protection, saving operating costs
- Three working modes: stereo, mono, bridge
- Equipped with working mode switch
- Optional level gain switch)
- Two XLR audio input interfaces and two Speakon audio output interfaces
- XLR-M output connector for transmitting audio signal to the next power amplifier
- Perfect protection functions: short circuit, DC, over temperature protection, overload power control, etc.

Technical Specifications

Electrical

Rated power (THD=1%, 1 kHz) .... 2×450 W (8 Ω/Stereo)
.... 2×675 W (4 Ω/Stereo)
.... 2×1010 W (2 Ω/Stereo*)
.... 1×900 W (16 Ω/Bridge)
.... 1×1350 W (8 Ω/Bridge)
.... 1×2020 W (4 Ω/Bridge*)
(* Test conditions: 20ms, 1kHz, THD+N=1%)

RMS output voltage (THD=1%, 1 kHz) .... 60 V
Input sensitivity (Rated power,1 kHz) .... 0.775 Vrms, 32 dB
THD+N(10% Rated power, Typical value) 0.05%
IMD-SMPTE (10% Rated power, Typical value) 0.05%
DIM30 (10% Rated power, Typical value) 0.05%
Crosstalk suppression (Below rated power, 20 Hz - 1 kHz) ≥75 dB
Frequency response (10% Rated output power,
8 Ω, 20 Hz - 20 kHz) .... ±0.2 dB
Input impedance .... 20 kΩ (Balanced)
10 kΩ (Unbalanced)
Damping coefficient (8 Ω, 20 Hz - 200 Hz) .... Typical value 1000
SNR (A weighted, 20 Hz - 20 kHz) .... ≥105 dB
Power supply .... AC 100-240 V, 50/60 Hz

Mechanical

Temperature .... Working temperature: 0°C～+50°C
Storage temperature: -20°C～+70°C
Humidity .... Storage and use humidity:10%～90%
Dimensions (h × w × d) .... 44×480×291 mm
Weight .... 5.9 kg
Color .... Black

Ordering Information

HPA-2045B/02 .... Digital Audio Power Amplifier (8 Ω, 450 W×2)

HCL-1090B
Line Array Column Loudspeaker

Specifications

Components	Four 3.0 inch full-range
Frequency response	80 Hz ~ 20 kHz (-10 dB)
Coverage pattern	Horizontal: 150°
	Vertical: 30°
Sensitivity (2.45 V@1 m)	90 dB
Impedance	6 Ω
Power capacity (6 Ω)	60 W (240 W peak), 2 hrs
	36 W (144 W peak), 100 hrs
Max. SPL	107 dB
Enclosure	Fiberglass reinforced ABS cabinet, painted aluminum grille
Outdoor capability	IP-55 rated, per IEC60529, moisture- and water-proof, dust-proof, water-proof cable gland
Colors	Black or White
Insert	Three M6 insert points on back panel
Mounting	Included swivel wall bracket; provides horizontal direction ±80° continuous left and right rotation
Dimensions (h × w × d)	408×111×145 mm
Weight	2.4 kg
Accessories	Swivel wall bracket; wall-mounted fixed installation piece (optional)

Features

■ Compact design, natural and high- quality sound
■ Built-in 4 3.0-inch full-frequency drivers
■ Wide frequency range and enhanced performance: Characterized with wider bandwidth, has the lowest frequency at 80 Hz. Constant resistance (6 Ω) power mode for higher output level
■ Coverage pattern: Horizontal: 150°, Vertical: 30°
■ Professional line array sound column, with uniform sound field coverage, higher transmission gain and hardly howling. Solve the sound reinforcement requirement in the environment with sound defect
■ Enclosure designed IP-55 rate, per IEC60529 allows use in a wide of adverse conditions
■ Fiberglass reinforced ABS cabinet with UV resistant
■ Wall-mount (with swivel wall bracket) or stand-mount

Overview:

HCL-1090B Line Array Column Loudspeaker, composed of three full-range drivers, features natural and high-quality sound in a compact and exquisite enclosure. It offers rich and nice middles, and crisp and sweet highs. Thanks to its wide and even sound field, HCS-1090B can be used for various applications such as in small conference room and classroom.

The internal speaker units arrayed vertically in close proximity form a linear sound source, which guarantees better coverage and less susceptibility to feedback at a longer throw distance. It characterized with wider bandwidth, has the lowest frequency at 80 Hz. Constant resistance mode (6 Ω) for higher output level.

Enclosure designed IP-55 rate IEC60529 allows use in a wide range of adverse conditions such as wet, dirty or corrosive environments.

Ordering Information

HCL-1090B_B   Line Array Column Loudspeaker (6 Ω, 60 W, black, with HCL-1090BKT_B adjustable installation brackets)

HCL-1090B_W   Line Array Column Loudspeaker (6 Ω, 60 W, white, with HCL-1090BKT_W adjustable installation brackets)

HCL-1120
Line Array Column Loudspeaker

Features

- Compact design, natural and high- quality sound
- Built-in 4 3.0-inch full-frequency drivers
- Wide frequency range and enhanced performance: Characterized with wider bandwidth, has the lowest frequency at 65 Hz. Constant resistance (8 Ω) power mode for higher output level
- Coverage pattern: Horizontal: 150°, Vertical: 30°
- Professional line array sound column, with uniform sound field coverage, higher transmission gain and hardly howling. Solve the sound reinforcement requirement in the environment with sound defect
- Enclosure designed IP-55 rate, per IEC60529 allows use in a wide of adverse conditions
- Fiberglass reinforced ABS cabinet with UV resistant
- Wall-mount (with swivel wall bracket) or stand-mount

Overview:

HCL-1120 Line Array Column Loudspeaker, composed of three full-range drivers, features natural and high-quality sound in a compact and exquisite enclosure. It offers rich and nice middles, and crisp and sweet highs. Thanks to its wide and even sound field, HCL-1120 can be used for various applications such as in small conference room and classroom.

The internal speaker units arrayed vertically in close proximity form a linear sound source, which guarantees better coverage and less susceptibility to feedback at a longer throw distance. It characterized with wider bandwidth, has the lowest frequency at 65 Hz. Constant resistance mode (8 Ω) for higher output level.

Enclosure designed IP-55 rate IEC60529 allows use in a wide range of adverse conditions such as wet, dirty or corrosive environments.

Specifications

Components	Four 3.0 inch full-range
Frequency response	65 Hz ~ 20 kHz (-10 dB)
Coverage pattern	Horizontal: 150° Vertical: 30°
Sensitivity (2.83 V@1 m)	90 dB
Impedance	8 Ω
Power capacity (8 Ω)	120 W (480 W peak), 2 hrs 72 W (288 W peak), 100 hrs
Max. SPL	110 dB
Enclosure	Fiberglass reinforced ABS cabinet, painted aluminum grille
Outdoor capability	IP-55 rated, per IEC60529, moisture- and water-proof, dust-proof, water-proof cable gland
Colors	Black or White
Insert	Three M4 insert points on back panel
Mounting	Included swivel wall bracket; provides horizontal direction ±80° continuous left and right rotation
Dimensions (h × w × d)	408×111×145 mm
Weight	2.1 kg
Accessories	Swivel wall bracket

Ordering Information

HCL-1120_B .... Line Array Column Loudspeaker (8 Ω, 120 W, black, 3 inch speaker unit, with HCL-1090BKT_B adjustable installation brackets)

HCL-1120_W .... Line Array Column Loudspeaker (8 Ω, 120 W, white, 3 inch speaker unit, with HCL-1090BKT_W adjustable installation brackets)

HCL-1200B
Line Array Column Loudspeaker

Features

- Compact design, natural and high-quality sound
- Built-in 8 2.5-inch full-frequency drivers
- Wide frequency range and enhanced performance:
- Characterized with wider bandwidth, has the lowest frequency at 80 Hz. Constant resistance (6 Ω) power mode for higher output level
- Switchable Speech/Music mode
- Coverage pattern: Horizontal: 150°, Vertical: 20°
- Professional line array sound column, with uniform sound field coverage, higher transmission gain and hardly howling. Solve the sound reinforcement requirement in the environment with sound defect
- Enclosure designed IP-54 rate, per IEC60529 allows use in a wide of adverse conditions
- Fiberglass reinforced ABS cabinet with UV resistant
- Wall-mount (with swivel (pan)/tilt wall bracket) or stand-mount

Overview

HCL-1200B Line Array Column Loudspeaker, composed of eight full-range drivers, features natural and high-quality sound in a compact and exquisite enclosure. It offers rich and nice middles, and crisp and sweet highs. Thanks to its wide and even sound field, HCS-1200B can be used for various applications such as in conference room, lecture hall, ballroom, auditorium and classroom.

The internal speaker units arrayed vertically in close proximity form a linear sound source, which guarantees better coverage and less susceptibility to feedback at a longer throw distance. A multi-way full range loudspeaker characterized with wider bandwidth, has the lowest frequency at 80 Hz. Default constant resistance mode (6 Ω) for higher output level.

HCL-1200B is versatile by accommodating different applications with enhanced mid-range output in Speech mode and more flat response in Music mode.

Enclosure designed IP-54 rate IEC60529 allows use in a wide range of adverse conditions such as wet, dirty or corrosive environments.

Specifications

Components	Eight 2.5 inch full-range
Frequency response	80 Hz ~ 18 kHz (-10 dB)
Coverage pattern	Horizontal: 150° Vertical: 20°
Sensitivity (2.45 V@1 m)	93 dB (speech mode) 89 dB (music mode)
Impedance	6 Ω
Power capacity (6 Ω)	200 W (800 W peak), 2 hrs 120 W (480 W peak), 100 hrs
Max. SPL	120 dB (speech mode) 117 dB (music mode)
EQ	Speech v. Music: 2.5-4 dB（@2-5 kHz）
Enclosure	Fiberglass reinforced ABS cabinet, painted aluminum grille
Outdoor capability	IP-54 rated, per IEC60529, moisture- and water-proof, dust-proof, water-proof cable gland
Colors	Black or White
Insert	Eight M6 swivel (pan)/tilt insert points on back panel
Mounting	Included swivel (pan) / tilt wall bracket; provides ±80° continuous left and right rotation in the horizontal direction, and ±15° tilt in the vertical direction (with a 5° fixed increment within the range of ±15°)
Dimensions (h × w × d)	620×102×155 mm
Weight	5.3 kg
Accessories	Swivel (pan)/tilt wall bracket; Lifting bracket (optional)

Ordering Information

HPA-2240
Wall Mounted Speaker

Features

■   Unique and design
■   Exquisite sound quality
■   Can be widely used in classrooms, conference halls and
    other scenarios
■   Wall-Mounted, can be installed vertically or horizontally
■   Color: white/black

Technical Specifications

Electrical

Frequency response	65 Hz to 20 kHz
Impedance	8 Ω
Rated power	40 W
Sensitivity	90 dB
Woofer Unit	1×6.5"
Tweeter	1×3.5"
Coverage pattern	90° (H) × 90° (V)
Max SPL	106 dB SPL,112 dB SPL peak

Mechanical

Mounting	Wall-mounted
Dimensions (h x w x d)	290 x 215 x 190 mm
Weight	3.4 kg

Ordering Information

HPA-2240_W   Wall Mounted Speaker (8 Ω, 40 W, white)

HSC-106E
6.5-inch Ceiling Loudspeaker

Features

- ■ 1 × 6.5" + 1 × 0.75" coaxial drive units
- ■ Common magnetic design
- ■ Ceiling Mounted

Technical Specifications

Frequency Range	90 Hz-20 kHz（-10 dB）
Sensitivity	90 dB
Nominal Impedance	16 Ω
Power	60 W (AES)
Woofer Unit	1×6.5"
Tweeter	1×0.75"
Coverage pattern	90°(H) × 90°(V)
Max SPL	108 dB SPL,114 dB SPL peak
Input Interface	Phoneix 4pin
Enclosure Material	ABS panel + metal box
Dimensions	Ø250 × 216 mm
Weight	2.7 kg

Ordering Information

HSC-106E	6.5-inch Ceiling Loudspeaker (1×6.5" woofer + 1×0.75" tweeter coaxial drive units, 16 Ω, 60 W, white)

HSP-108E
8-inch Two-way Loudspeaker

Technical Specifications

Frequency Range	70 Hz-20 kHz（±3 dB）
	50 Hz-25 kHz（-10 dB）
Sensitivity	96 dB
Nominal Impedance	8 Ω
Power	200 W (AES)
Woofer Unit	1×8" complex carbon fiber diaphragm midwoofer units
Tweeter	1×2" nano carbon fiber diaphragm tweeters
Coverage pattern	50°~100° gradient horizontal 60° vertical coverage with rotatable horn
Max SPL	119 dB SPL,125 dB SPL peak
Input Interface	2 × Speakon
Enclosure Material	Birch + black polyurea finish
Dimensions (H × W × D)	265 × 250 × 460mm
Weight	11 kg
Optional accessories	HSP-108BKTU U-shaped wall

Features

■ 1 × 8" + 1 × 2" coaxial drive units
■ Composite carbon fiber diaphragm + nano carbon fiber diaphragm
■ Gradient rotatable pointing horn

Ordering Information

HSP-108E 8-inch Two-way Loudspeaker (1×8" woofer + 1×2" tweeter, gradient rotatable pointing horn, 8 Ω, 200 W, optional HSP-108BKTU U-shaped wall bracket, black)

HCL-404EJ
4 Units Two-way Column Loudspeaker

Specifications

Frequency Range	80Hz-20kHz（±3dB）/60Hz-25kHz(-10dB)
Sensitivity	98 dB
Nominal Impedance	8 Ω
Power	Noise Power: 200 W(AES)
	PGM Power: 400 W
	Peak Power: 800W
Midwoofer Unit	4×4" complex carbon fiber diaphragm midwoofer units
Tweeter	12×0.75" nano carbon fiber diaphragm tweeters
Coverage Pattern	100°(H)×40°(V)（+15°~-25°）
Max SPL	121 dB SPL，127 dB SPLpeak
Input Interface	Phoneix 2pin
Enclosure Material	Birch + black polyurea finish
Dimensions (H × W × D)	450×130×180/97（mm）
Weight	4.9 kg
Accessories	2 x wall screw
Optional accessories	HCL-404BKT Swivel (pan)/tilt wall bracket

Features:

■ Compact design, natural and high- quality sound

■ Built-in 4×4" midwoofer drivers and 12×0.75" tweeters

■ One midwoofer driver and three tweeters form a set of coaxial transducer for better off-axis response

■ The column loudspeaker consists of 4 sets of coaxial transducers

■ The tweeters are vertically aligned in a "array-in-array" design for better extended the vertical directivity at high frequency

■ Wide frequency range and enhanced performance:

■ Characterized with wider bandwidth, has the lowest frequency at 60 Hz. Constant resistance (8 Ω) power mode for higher output level

■ Coverage pattern: Horizontal: 100°, Vertical: 40°

■ Professional two-way column loudspeaker, with uniform sound field coverage, higher transmission gain and hardly howling. Speech intelligibility is optimized

■ Using three composite wood cabinets with different characteristics, the resonant frequency of the cabinet can be adjusted outside the working frequency range of the sound column

■ Can be used independently or in combination with HCL-404

■ Chute mortise and tenon design, quickly combine with HCL-404 without complex tools

■ Widely used in small and medium conference rooms, multi-function halls, hotels, restaurants, classrooms and other places

Ordering Information

HCL-404EJ·····················4 Units Two-way Column Loudspeaker (4×4" midwoofer units + 12×0.75" tweeters, 8 Ω, 200 W, 40° vertical direction, can be combined with HCL-404 E, optional HCL-404BKT swivel (pan)/tilt wall bracket, black)

HCL-404E
4 Units Two-way Column Loudspeaker

Features:

■ Compact design, natural and high- quality sound

■ Built-in 4×4" midwoofer drivers and 12×0.75" tweeters

■ One midwoofer driver and three tweeters form a set of coaxial transducer for better off-axis response

■ The column loudspeaker consists of 4 sets of coaxial transducers

■ The tweeters are vertically aligned in a "array-in-array" design for better extended the vertical directivity at high frequency

■ Wide frequency range and enhanced performance:

■ Characterized with wider bandwidth, has the lowest frequency at 60 Hz. Constant resistance (8 Ω) power mode for higher output level

■ Coverage pattern: Horizontal: 100°, Vertical: 15°

■ Professional two-way column loudspeaker, with uniform sound field coverage, higher transmission gain and hardly howling. Speech intelligibility is optimized

■ Using three composite wood cabinets with different characteristics, the resonant frequency of the cabinet can be adjusted outside the working frequency range of the sound column

■ Used in combination with HCL-404J

■ Chute mortise and tenon design, quickly combine with HCL-404J without complex tools

■ Widely used in small and medium conference rooms, multi-function halls, hotels, restaurants, classrooms and other places

Specifications:

Frequency Range	80Hz-20kHz（±3dB）/60Hz-25kHz(-10dB)
Sensitivity	100 dB
Nominal Impedance	8 Ω
Power	Noise Power: 200 W(AES)
	PGM Power: 400 W
	Peak Power: 800 W
Midwoofer Unit	4×4" complex carbon fiber diaphragm midwoofer units
Tweeter	12×0.75" nano carbon fiber diaphragm tweeters
Coverage Pattern	100°(H)×15°(V)
Max SPL	123 dB SPL，129 dB SPLpeak
Input Interface	2 x Phoneix 2pin
Enclosure Material	Birch + black polyurea finish
Dimensions (H × W × D)	450×130×180（mm）
Weight	5.2 kg
Accessories	2 x wall screw

Ordering Information

HCL-404E .... 4 Units Two-way Column Loudspeaker (4×4" midwoofer units + 12×0.75" tweeters, 8 Ω, 200 W, 15° vertical direction, can be combined with HCL-404EJ , black)