DATASHEET

PAN BEAM PB 04-D | PoE++

COMPACT, ACTIVE, DIGITALLY STEERABLE LINE ARRAY WITH BEAM STEERING TECHNOLOGY

Illustration in colour option, see mechanical properties

EQUIPMENT / OPTIONS

See last page for explanation of the symbols.

APPLICATIONS

Churches, mosques, museums, live PA, train stations, airports, sports facilities, legislative buildings, conference rooms, lecture halls, shopping centres, A/V presentation rooms

The **Pan Beam PB 04-D | PoE++** is a compact, active, digitally steerable line array with beam steering technology in an attractive design that has been developed for high-quality speech and music transmissions via AoIP network connections with PoE++. The PoE classes 30 W, 60 W, 90 W are supported.

The **PB 04-D | PoE++** uses the Pan Audio DSP and Power Core technology. This technology enables efficient management of the available PoE power budget and provides power for maximum peak performance.

The loudspeaker supports the AES67 and Dante AoIP protocols as well as network management via Dante Domain Manager (DDM).

It is operated via user-friendly Windows software. The PB 04-D| PoE++ is connected to the PC via the AoIP network. Digital signal processing from the Pan Audio DSP can be used to enter and control the sound and delay times in real time.

The **PB 04-D | PoE++** can generate two highly directed sound beams which can be modified using various optimisers (max. SPL, SPL min. sidelobes, min. sidelobes). Digital signal processing can be used to precisely adjust the vertical radiation angle and the tilt angle to the area to be covered.

The **PB 04-D | PoE++** is equipped with four specially manufactured 3.5" HQ drivers, DSP module and four digital amplifiers with a rated power of up to 100 watts each. A single PB 04 module can cover a listening area of up to 15 meters, with speech intelligibility and sound pressure remaining virtually constant over the entire distance.

Cascading of the PB 04-D | PoE++ is not possible.

FEATURES:

High efficiency, integrated protection circuits, high speech intelligibility and music reproduction even in acoustically demanding environments, sleek and unobtrusive design, remote monitoring, two audio inputs

INTEGRATED DSP CONTROL FOR:

Adjustment of vertical radiation (coverage/tilt angle), 5-band parametric equaliser, volume control, internal delay up to 370 ms, connection to media controller possible, two independent line inputs with automatic priority switching

MOUNTING ACCESSORIES

For the **Pan Beam** series, a wide range of mounting accessories is available for fixed installation and mobile use.

All **Pan Beam** loudspeakers are designed, developed and manufactured in Germany by Pan Acoustics from high quality materials and according to strict criteria.

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QUALITY
MADE IN GERMANY
SINCE 2002

All products are designed, developed and manufactured by Pan Acoustics in Germany.
Pan Acoustics reserves the right to modify products without prior notice.

www.pan-acoustics.de

Pan Acoustics GmbH | Schweigerstr. 13d | D-38302 Wolfenbüttel | Germany | Tel.: +49 (0) 5331 900 95 70 | E-mail: contact@pan-acoustics.de

PAN BEAM | PAN SPEAKER | PAN 2-LINE | PAN EVAC

PAN ACOUSTICS

Dante

TECHNICAL DATA PAN BEAM PB 04-D | PoE++

ACOUSTIC PROPERTIES

Configuration:	digitally steerable line array
Frequency range:	120 Hz–18 kHz
Equipment:	4 x 3.5” HQ drivers
Horizontal radiation pattern:	130° (3 kHz), 70° (10 kHz)
Vertical radiation pattern:	10°–40°, digitally steerable
Number of beams:	1
Acoustic focus adjustable according to room length	
Tilt:	-70° to +70°, digitally steerable
Focus distance:	1 m up to 15 m
Typical distance:	15 m
Maximum SPL:	116 dB SPL* @ 1 m (calc.) | 90 dB SPL @ 25 m
Dynamic range:	>105 dB

ELECTRONIC PROPERTIES

Amplifier output/type:	up to 8 x 100 watts max (4 ohms) / digital PWM
DSP:	24 bit / 96 kHz sample rate
Network I/O:	1 x etherCON primary 1 x etherCON secondary 1 x etherCON Pan Net Link
Audio input via Dante:	44.1 / 48 / 96 sample rate
Audio input via Pan Net:	analogue audio (1-channel), failover function
Audio output via Pan Net:	digital audio AES/EBU (2-channel)
PoE power consumption:	30 W / 60 W / 90 W
Temperature range:	0 °C to +40 °C ambient temperature
Supported PoE power classes:	PoE+ // IEEE standard 802.3at (Type 2) PoE++ // IEEE standard 802.3bt (Type 3 & Type 4)
Connection cable required:	twisted pair cable with solid copper conductor

MECHANICAL PROPERTIES

Enclosure:	aluminium profile
Grille:	powder-coated perforated metal sheet
Standard colours (with silver lids): **(optional: lids in enclosure colour)**	RAL 9006 (aluminium), anodised RAL 9010 (white), silk matt RAL 9005 (black), silk matt
Dimensions (H x W x D):	506 x 107 x 118 [mm]
Weight:	3.5 kg (incl. electronics)
Mounting accessories:	extensive range of mounting accessories available

*under anechoic half-space conditions with DSP settings
Frequency range: - 10 dB under anechoic half-space conditions

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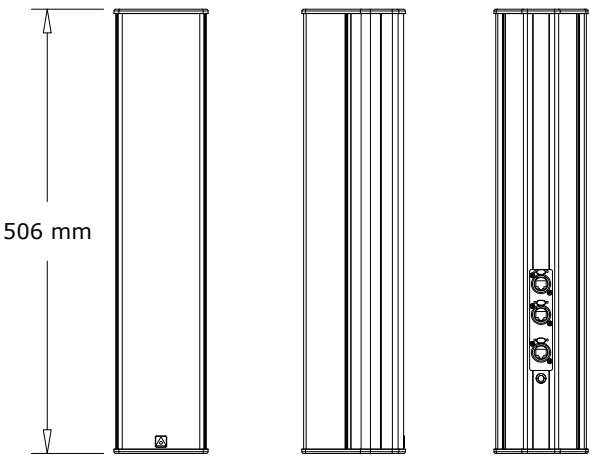
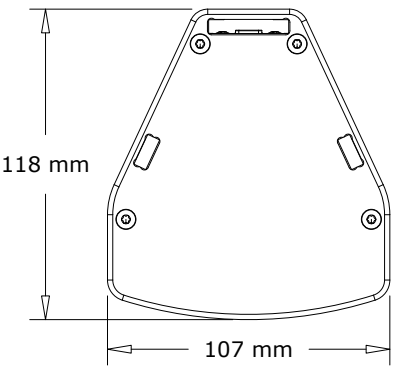
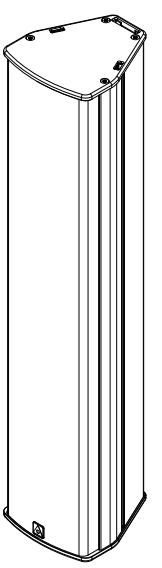
TECHNICAL DRAWING PAN BEAM PB 04-D | PoE++







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EQUIPMENT / OPTIONS AT GLANCE – PAN BEAN SERIES

Customised painting/colouring within the RAL colour range. Other colour ranges such as RAL design, Pantone, etc. are available on request.

Analogue audio inputs with balanced signal routing.

Digital Dante audio network including AES67 support. Redundant network structure with Pan Net control.

Pilot tone evaluation for integration in SAA/ENS systems.

General Purpose Output (GPO) Switchable contact, e.g. for status request via downstream media control.

DC input for operation on emergency power supplies.

DC 24 - 48V

Accessories such as wall, tripod and ceiling mounts, different interfaces, connection cables, weather protection hoods and connection sets are available.

Ball impact resistance

Made-to-measure enclosure of the loudspeaker is possible. The enclosure dimensions of the Pan Beam series can be customised.

Digital audio inputs support 2 x AES/EBU (AES3).

Power Core technology Efficient power budget management in AoIP networks with PoE++ support.

100 V audio inputs with selectable power taps.

Pan Net Pan Acoustics' own control and monitoring protocol.

Priority switching Automatic switching of the audio inputs, e.g. between programme and announcement.

Weatherproofing of the loudspeakers in accordance with protection classes IP54 or IP65 (depending on the model) is possible.

Looks good, sounds good. Pan Acoustics' products are defined by natural sound and attractive design.

Some equipment features cannot be combined. For information about which features can be combined with each other, please send an e-mail to sales@pan-acoustics.de.

Our quality promise

Pan Acoustics stands by its products and gives up to **10 years warranty** on its loudspeakers for any material or manufacturing defects. New products manufactured in accordance with protection classes IP54 and IP65 as well as digital audio interfaces (Dante®) from Audinate Pty Ltd and rechargeable batteries are excluded from the 10-year warranty. A warranty period of 3 years is granted for loudspeakers in accordance with protection classes IP54 and IP65.

QUALITY GUARANTEED ★ QUALITY GUARANTEED ★ 10 YEARS WARRANTY