PAN ACOUSTICS

PAN BEAM PB 24 | + VARIANTS

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

The **Pan Beam PB 24** 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.

The **PB 24** features Pan Audio DSP and network functions such as Pan Net, AES/EBU and Dante. It is operated via user-friendly Windows software. The PB 24 is connected to the computer via a Pan Net interface or via Dante. 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 24** can generate four highly directed sound beams which can be modified using various optimizers (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 filled with sound.

The **PB 24** is equipped with 24 specially manufactured 3.5" HQ drivers, DSP module and 24 digital amplifiers with a rated power of up to 100 watts each. A single PB 24 module can cover a listening area of up to 70 meters, with speech intelligibility and sound pressure remaining virtually constant over the entire distance.

In order to increase the lower cut-off frequency, the sound pressure and the reach, the **Pan Beam PB 08** can be cascaded to a **Pan Beam PB 16/24/32/40**.

Illustration of variant split enclosure
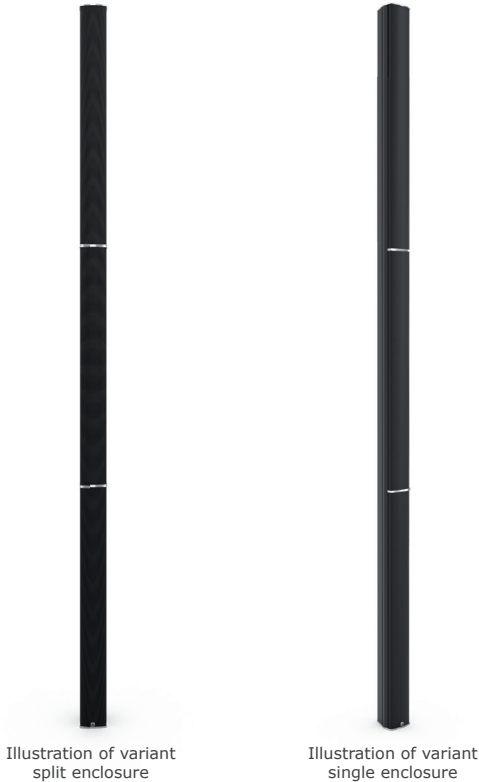
Illustration of variant single enclosure

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

FEATURES:

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

INTEGRATED DSP CONTROL FOR:

Adjustment of vertical radiation (coverage/tilt angle), 5-band parametric equalizer, 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.

EVACUATION SYSTEMS

The Pan Beam series can be integrated into voice alarm / electroacoustic emergency warning systems according to EN 50849.

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

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

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TECHNICAL DATA PAN BEAM PB 24

ACOUSTIC PROPERTIES

Configuration:	digitally steerable line array
Frequency range:	70 Hz - 18 kHz
Equipment:	24 x 3.5" HQ drivers
Horizontal radiation pattern:	130° (3 kHz), 70° (10 kHz)
Vertical radiation pattern:	3° - 40°, digitally steerable
Number of beams:	4
Acoustic focus adjustable according to room length	
Tilt:	-70° - +70° (digitally steerable)
Focus distance:	1 m up to 90 m
Typical distance:	70 m
Maximum SPL:	132 dB SPL* @ 1 m (calc.) | 100 dB SPL @ 25 m
Dynamic range:	>105 dB

ELECTRONIC PROPERTIES

Amplifier output/type:	up to 24 x 100 watts max (4 ohms) / digital PWM
DSP:	24 bit / 96 kHz sample rate
Pan Net I/O:	2 x etherCON
Audio input via Pan Net:	transformer balanced line level +4 dBu
Nominal power consumption:	30 VA (normal), 810 VA (max.)
Temperature range:	0 °C to 40 °C ambient temperature (optionally -30 °C to +50 °C)
Power supply:	90 V - 264 V (+5/-10%), 50 Hz to 60 Hz
Connection:	IEC socket

MECHANICAL PROPERTIES

Enclosure:	Aluminium profile
Grille:	Powder-coated perforated metal sheet
Standard colours (with silver lids): **(optional: lid in enclosure colour)**	RAL 9006 (aluminium), anodized RAL 9010 (white), silk matt RAL 9005 (black), silk matt
Dimensions (H x W x D): **Dimensions dG - variant (H x W x D)**	2718 x 107 x 118 [mm] 2706 x 107 x 118 [mm]
Weight:	16.5 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 DATA PAN BEAM PB 24 | AES

ACOUSTIC PROPERTIES

Configuration:	digitally steerable line array
Frequency range (-10 dB):	70 Hz - 18 kHz
Equipment:	24 x 3.5" HQ drivers
Horizontal radiation pattern:	130° (3 kHz), 70° (10 kHz)
Vertical radiation pattern:	3° - 40°, digitally steerable
Number of beams:	4
Acoustic focus adjustable according to room length	
Tilt:	-70° - +70° (digitally steerable)
Focus distance:	1 m up to 90 m
Typical distance:	70 m
Maximum SPL:	132 dB SPL* @ 1 m (calc.)	100 dB SPL @ 25 m
Dynamic range:	>105 dB

ELECTRONIC PROPERTIES

Amplifier output/type:	up to 24 x 100 watts max (4 ohms) / digital PWM
DSP:	24 bit / 96 kHz sample rate
Pan Net I/O:	2 x etherCON
Audio input via Pan Net:	digital 44.1 / 48 / 96 / 192 kHz (sample rates) 1 x analog audio
Nominal power consumption:	30 VA (normal), 810 VA (max.)
Temperature range:	0 °C to 40 °C ambient temperature (optionally -30 °C to +50 °C)
Power supply:	90 V - 264 V (+5/-10%), 50 Hz to 60 Hz
Connection:	IEC socket

MECHANICAL PROPERTIES

Enclosure:	Aluminium profile
Grille:	Powder-coated perforated metal sheet
Standard colours (with silver lids): **(optional: lid in enclosure colour)**	RAL 9006 (aluminium), anodized RAL 9010 (white), silk matt RAL 9005 (black), silk matt
Dimensions (H x W x D): **Dimensions dG - variant (H x W x D)**	2718 x 107 x 118 [mm] 2706 x 107 x 118 [mm]
Weight:	16.5 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 DATA PAN BEAM PB 24-D (DANTE)

ACOUSTIC PROPERTIES

Configuration:	digitally steerable line array
Frequency range:	70 Hz - 18 kHz
Equipment:	24 x 3.5" HQ drivers
Horizontal radiation pattern:	130° (3 kHz), 70° (10 kHz)
Vertical radiation pattern:	3° - 40°, digitally steerable
Number of beams:	4
Acoustic focus adjustable according to room length	
Tilt:	-70° - +70° (digitally steerable)
Focus distance:	1 m up to 90 m
Typical distance:	70 m
Maximum SPL:	132 dB SPL* @ 1 m (calc.) | 100 dB SPL @ 25 m
Dynamic range:	>105 dB

ELECTRONIC PROPERTIES

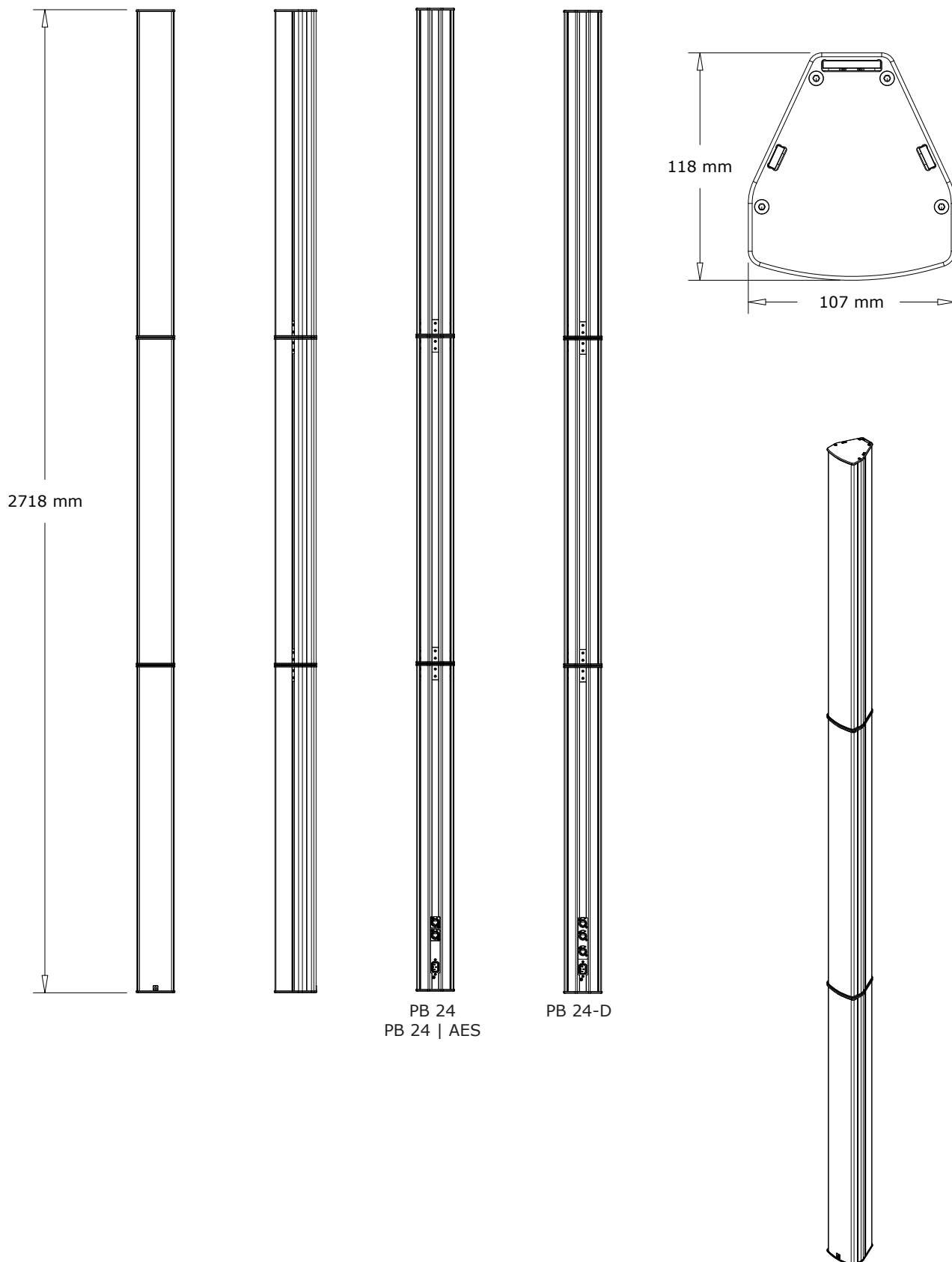|	
Amplifier output/type:	up to 24 x 100 watts max (4 ohms) / digital PWM
DSP:	24 bit / 96 kHz sample rate
Network I/O:	1 x etherCON primary 1 x etherCON secondary 1 x etherCON Pan Net Link
Audio input via Dante:	44.1 / 48 / 96 sample rate
Nominal power consumption:	30 VA (normal), 810 VA (max.)
Temperature range:	0 °C to 40 °C ambient temperature (optionally -30 °C to +50 °C)
Power supply:	90 V - 264 V (+5/-10%), 50 Hz to 60 Hz
Connection:	IEC socket

MECHANICAL PROPERTIES
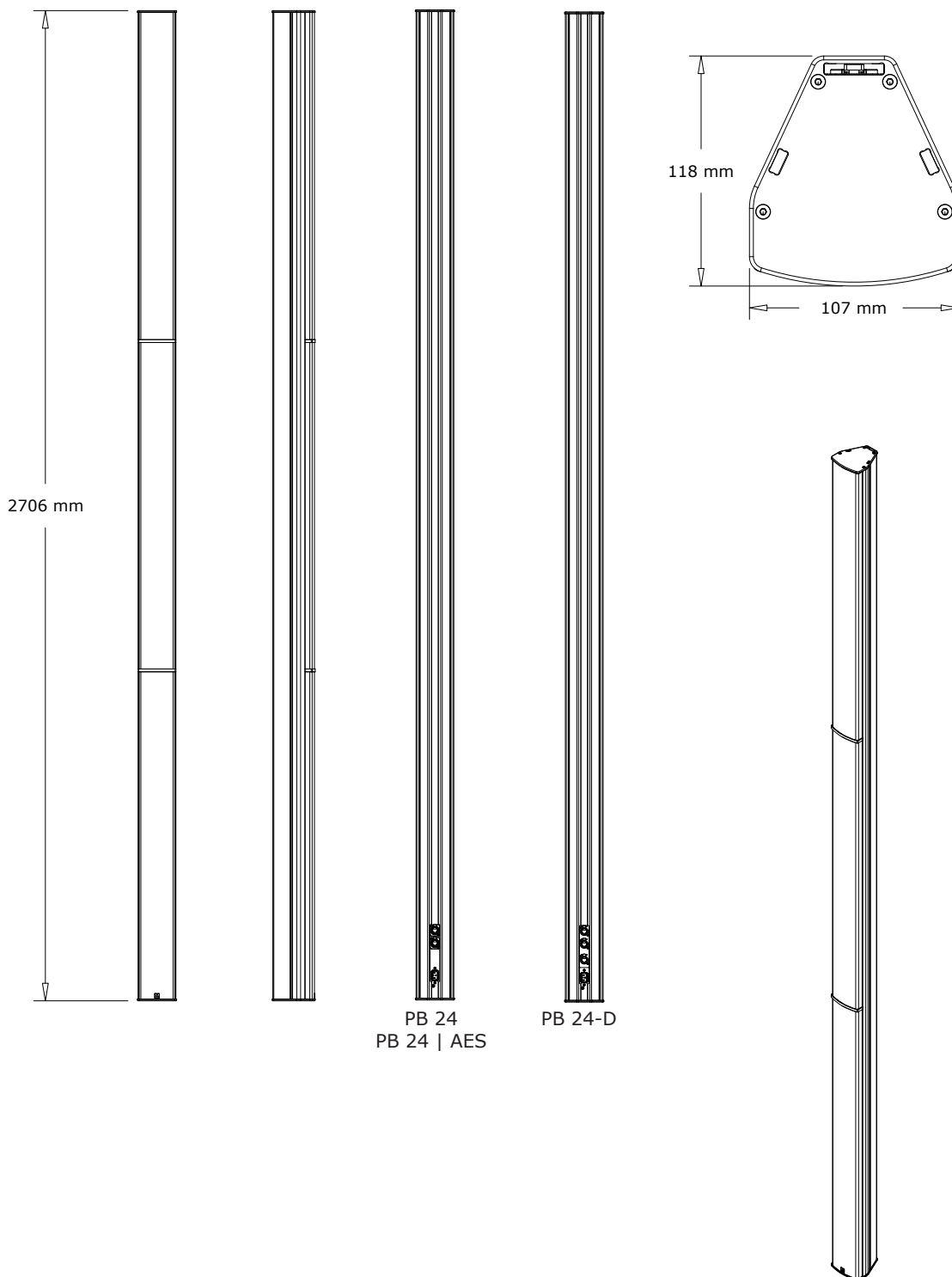
Enclosure:	Aluminium profile
Grille:	Powder-coated perforated metal sheet
Standard colours (with silver lids): **(optional: lid in enclosure colour)**	RAL 9006 (aluminium), anodized RAL 9010 (white), silk matt RAL 9005 (black), silk matt
Dimensions (H x W x D): **Dimensions dG - variant (H x W x D)**	2718 x 107 x 118 [mm] 2706 x 107 x 118 [mm]
Weight:	16.5 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

TECHNICAL DRAWING PB 24 (VARIANTS)

2718 mm

118 mm

107 mm

PB 24
PB 24 | AES

PB 24-D

TECHNICAL DRAWING PB 24 (dG) (VARIANTS)

2706 mm

118 mm

107 mm

PB 24
PB 24 | AES

PB 24-D

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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.

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

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

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).

100 V audio inputs with different 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.

Ball impact resistance

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.