



**PAN BEAM -  
ACTIVE DSP COLUMN SPEAKER  
PURE ACOUSTICS**

Shapely.  
Versatile.  
Functional.

## PAN BEAM - ACTIVE DIGITAL STEERABLE COLUMN SPEAKER



### THE IDEA

The Pan Beam series has been designed from the idea there should be an active column speaker series delivering perfect sound efficient and convenient even in difficult acoustic environments.

The speakers should have following properties:

- Perfect design
- High-quality full range and 2-way-system
- Highest level of speech intelligibility and reproduction
- Flexible and precise mounting
- Flexibility through modularity
- Light weight
- Integration of voice alarm systems
- Weather proof and long lasting
- Colouring according to customer requirements
- No fan

To meet the best possible acoustic requirements, the Pan Beam series are featured with a brand new and innovative technology. The easy handling and installation for the user was also in focus during the development of Pan Beam. Through the use of newly high-performance DSP electronics and digital amplifiers all required features have been grouped in a slim, elegant aluminium enclosure.

By using our self designed multi-Beam steering technology the sound beam can be aligned precisely and with constant volume on the corresponding listeners plane.

Pan Beam products can be adjusted to individual requirements by offering a variety of attractive module options such as the use of digital audio signals (AES / EBU), the Dante network or Pan Powerline technology (2-wire system).



**PAN BEAM**

The Pan Beam series includes a powerful full-range and 2-way systems equipped with the multi-beam steering technology features. The series has been complemented by a woofer in the low-frequency range, so that the loudspeaker systems from the Pan Beam series can be used in a variety of sound reinforcement applications.

For flexible applications, there are many different models available: PB 04, PB 08, PB 16, PB 16-C, PB 24, PB 32, PB 40, PB 224 und PB 248.

The individual family members differ with respect to their individual physical parameters. These are matched to the respective area of application.

The entire development and manufacturing of all products is done in Germany.

**MADE IN GERMANY**

**AVAILABLE OPTIONS**

- Pan Powerline option  
Transmission of audio, data and power using an available 2-wire-system
- Dante
- AES / EBU
- 100 V input
- Automatic volume control with Ambient Noise detection
- Various IP protection classes
- 24/48 V DC power supply
- wide range of mounting accessories
- Extended temperature range
- Colouring according to customer requirements

All Pan Beam are by far the lightest models in the digitally steerable array market. They are absolutely weatherproof and their energy efficiency with the lowest standby power consumption has been proven.

## PAN BEAM - CHARACTERISTICS AND TECHNICAL DATA



### TECHNICAL DATA

#### Electronic specifications

- integrated signal processing and digital amplification
- integrated DSP control for:  
control of the vertical beam, opening angle, elevation angle, focus distance, parametric equalizer, volume control, delay up to 370 ms
- two galvanic (separated) line inputs
- automatic priority input switching
- controllability of the vertical dispersion
- wide range power supplies (85-230 V AC 50/60 Hz)
- integrated protection circuits
- no fan

#### Acoustical performance (model dependent)

- Frequency response 60 Hz-20 kHz (+3/-10 dB)  
Horizontal dispersion: 150°
- Vertical beam angle: 2° to 40°, digitally controllable  
Focus distance: 5m to 100m

#### Mechanical performance

- Aluminium enclosure
- Perforated steel, powder coated Grill

#### Integration control

- RS-485-networking
- User-friendly Windows-PC-software to control all parameters
- Complex remote monitoring
- Integration possibilities for media bus control

### APPLICATIONS

Outdoor installations, train stations, bars, clubs, cabarets, corporate events, airports, houses of worship, conference rooms, auditoriums, museums, parliaments, sports facilities, cruise ships.





**A USER-FRIENDLY SOFTWARE**

By using the efficient and compact PC-Software Pan Beam-Setup, all to the system connected Pan Beam can be controlled and monitored. The universal software allows parallel operation of Pan Beam systems such as Pan Powerline or Dante.

Over the NET adapters Pan Con, Pan Splitter and Pan Powerline CCU or via a network card all Pan Beams are connected to a computer.

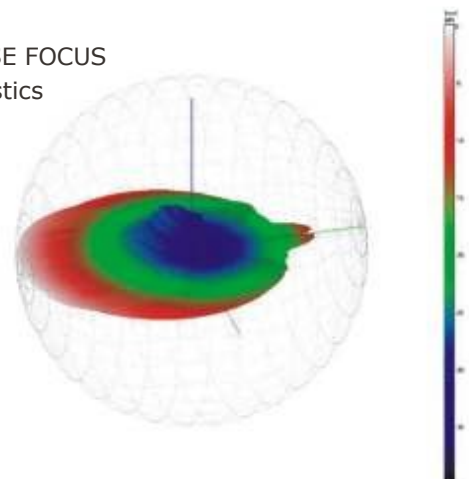
The software enables the control of all parameters: Vertical beam angle, inclination angle, acoustic centre, delay, EQ, in- and output level, beam level, activation of multi beam steering and several optimizers to reduce the side lobes, visualisation of DSP status, presets, etc.

**OPTIONS FOR EN60849 INSTALLATIONS**

- 24/48 V DC emergency power
- Alarm contact
- 100 V audio input and pilot tone monitoring

**SIMULATION DATA**

- EASE / EASE FOCUS
- CATT Acoustics



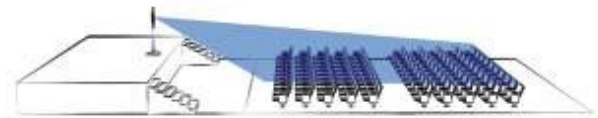
## MULTI BEAM STEERING TECHNOLOGY

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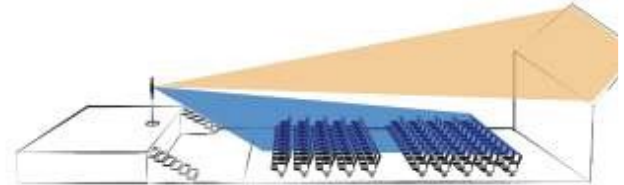
All speakers from the Pan Beam series feature the multi-beam steering algorithm of Pan Acoustics. This parameter enables Pan Beam loudspeakers (from PB 08 up) to generate two beams or more and give them the ability to be individually controlled.

Each beam has its own opening and elevation angle, enabling to focus the sound with different levels to the audience, using the same audio signal from a single speaker.

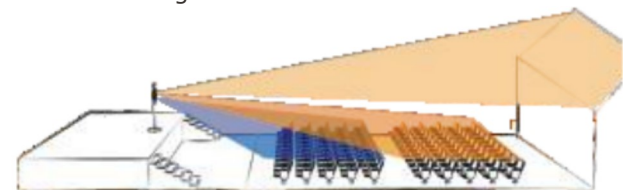
Through the precise and adjustable vertical bundling, the sound can be adjusted to the targeted area: the audience. The other part of the room is acoustically less covered, enabling a perfect speech intelligibility and natural music reproduction, even in reverberant rooms.



Beam Steering: individual beam



Beam Steering: double beam



Beam Steering: multi beam



**PB 04**  
 4 x 3.5" drivers  
 4 x DSP and CLASS D amplifier  
 119 dB SPL\* @1m (calc.)  
 Weight: 3.5 kg | Length: 0.45 m

**PB 40**  
 40 x 3.5" drivers  
 40 x DSP and CLASS D amplifier  
 136 dB SPL\* @1m (calc.)  
 Weight: 28 kg | Length: 4.53 m

**PB 08**  
 8 x 3.5" drivers  
 8 x DSP and CLASS D amplifier  
 125 dB SPL\* @1m (calc.)  
 Weight: 5.5 kg | Length: 0.90 m

**PB S-208 (Bandpass-Woofer)**  
 2 x 8" Low-frequency drivers  
 1 x DSP and CLASS D amplifier  
 125 dB SPL\*  
 Weight: 15 kg

**PB 16**  
 16 x 3.5" drivers  
 16 x DSP and CLASS D amplifier  
 131 dB SPL\* @1m (calc.)  
 Weight: 11 kg | Length: 1.81 m

**PB 224 (2-way beam steering system)**  
 6 x 6.5" Low-frequency drivers  
 18 x 1" High-frequency drivers  
 131 dB SPL\* @1m (calc.)  
 Weight: 27.5 kg | Length: 1.10 m

**PB 24**  
 24 x 3.5" drivers  
 24 x DSP and CLASS D amplifier  
 132 dB SPL\* @1m (calc.)  
 Weight: 16.5 kg | Length: 2.71 m

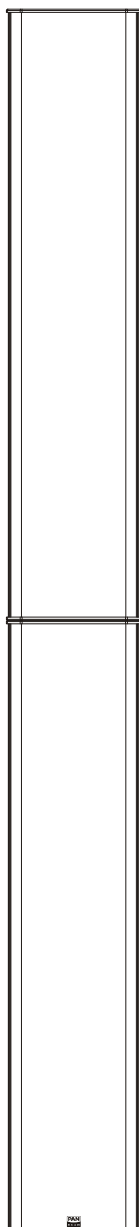
**PB 248 (2-way beam steering system)**  
 12 x 6.5" Low-frequency drivers  
 36 x 1" High-frequency drivers  
 134 dB SPL\* @1m (calc.)  
 Weight: 55 kg | Length: 2.21 m

**PB 32**  
 32 x 3.5" drivers  
 32 x DSP and CLASS D amplifier  
 134 dB SPL\* @1m (calc.)  
 Weight: 22 kg | Length: 3.62 m

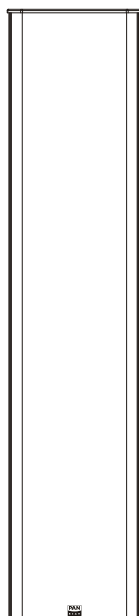
\* under anechoic half space conditions



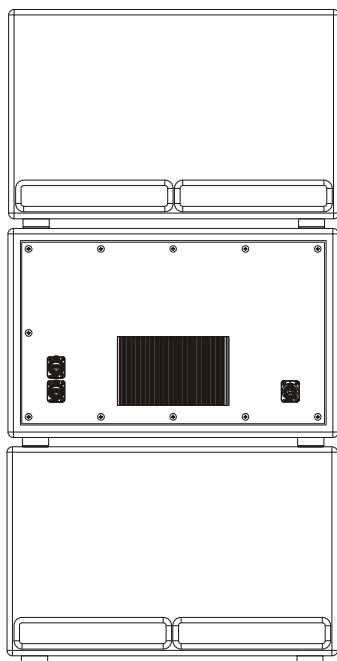
All products of the Pan Beam series are compatible with Dante.



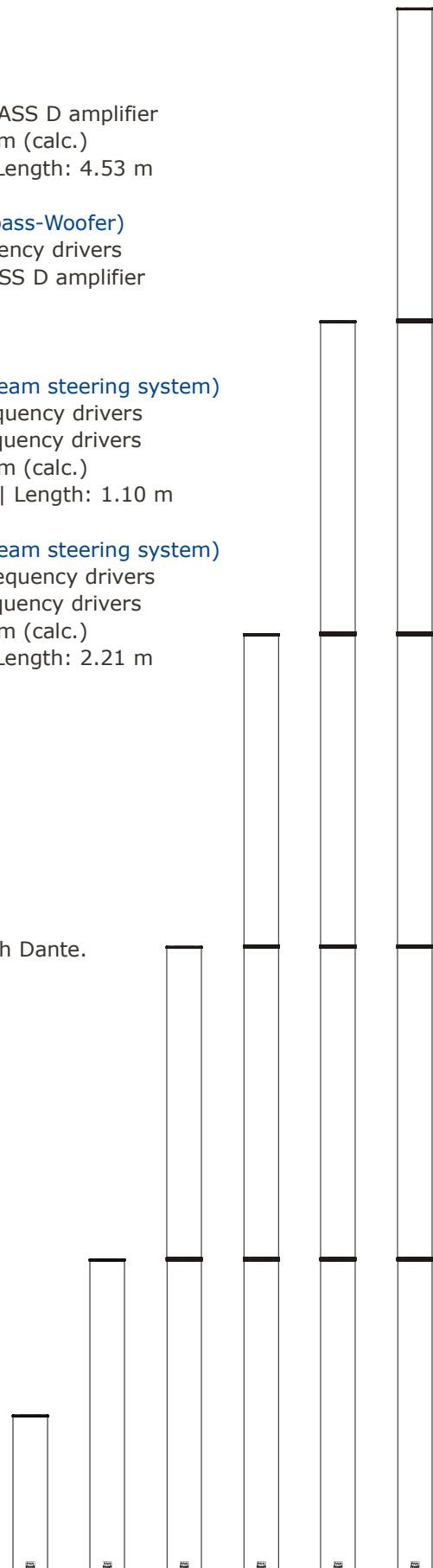
PB 248



PB 224



PB S-208 Cardioid Sub Array



PB04

PB08

PB16

PB24

PB32

PB40



## TECHNOLOGY

Audio, data and power over only 2-wire-system, e.g. I-Y(ST)Y of existing 100V-system. Pan Powerline is an option for several products of the Pan Beam series.



## PASSIVE COLUMN SPEAKER

**Shapely. Versatile. Functional.**

Solid. Different performance levels.

Applications: Live and fixed installations

### PAN ACOUSTICS COMBINES EXPERTISE AND KNOW-HOW

We create products with a unique sound performance.

We create solutions for acoustic challenges.

We create products with **weatherproof** option (IP 54/ IP 65) **seawater proof** and **temperature resistant** (-30° - 80°C).

All products are designed, developed and manufactured with high-quality materials according to the strict criteria by Pan Acoustics from Germany.

**QUALITY - MADE IN GERMANY**

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