



## PA-S 250 PoE DANTE Compact Amplifier with DSP, PoE and DANTE

**pa**series

### Description

The PA-S 250 PoE DANTE is a sophisticated 2-channel amplifier for controlling our passive speakers via a single network cable. Not only the power supply, but also the digital audio signal, the control commands (configurable with the LB CONTROL App), and the network commands for controlling or monitoring the amplifier are transmitted via Ethernet. With output power of 2 x 50 watts, the PA-S 250 PoE DANTE is able to power one or two pairs of speakers with a PoE 802.3bt power supply. In the case of lower power availability (PoE + or PoE 3at with 30 watts), the maximum output power is reduced accordingly.

When combined with our built-in speakers, a decentralized in-ceiling sound system can be installed with minimum wiring. The PA-S 250 PoE DANTE is positioned and serviced through the installation opening of a built-in speaker in the suspended ceiling.

The integrated DSP is implemented as a 4 x 2 mixer matrix with fully parametric filters, delays and limiters.

As a fallback solution, analog operation of the PA-S 250 PoE DANTE is possible via cinch inputs and with an external 24V power supply.

With DIP switches for ground lift and steady on as well as on/off switching via a contact, the amplifier can easily be integrated into projects.

### Key Features

- Remote controllable 2-channel compact amplifier with PoE
- Power capacity 2 x 50 watts / 4 ohms, 2 x 30 watts / 8 Ohms
- Ethernet interface for DANTE + PoE + DSP control
- Configuration with LB CONTROL App
- Controlling via network commands
- Fanless
- Ground Lift switchable
- Auto-On/Off switchable
- Ext. ON/OFF contact
- ¼ 19", 1 HE

Optional:

- 100 V transformer

### Fields of Application

- Home audio
- Media rooms
- Conference rooms
- Shops, sales rooms
- Gastronomy
- Concert halls, theatres
- Churches

## PA-S 250 PoE DANTE

### Compact Amplifier with DSP, PoE and DANTE




#### Technical Data

Inputs analog / digital	2-channel-DANTE-Interface + 2 × Line In Cinch
Nom. input	Analog 0 dBu, digital 0 dBFS
Max. input	+ 15 dBu
Input impedance	20 kOhms
Load impedance	≥ 4 ohms
Outputs	2 × Speaker Out up to 2 × 2,5 mm <sup>2</sup> , (screwtype terminals, pluggable)
Output power	
4 ohms	2 × 50 watts
8 ohms	2 × 30 watts
Frequency range	15 Hz – 22 kHz
THD	< 0,05 % (1 kHz, 3 dB below full power)
Dynamic range	> 100 dB
Displays	LED for ON/STANDBY; LEDs per channel for PROTECT, LIMIT, SIGNAL, SLEEP
Controls	Power switch at front. Rückseitig DIP- switch for AUTO ON/STEADY ON, GROUND LIFT
Software	LB CONTROL App
DSP	24 Bit, 48 kHz
Latency	0,64 ms
Functions	10 fully parametric filters in the input, high pass, low pass, compressor, limiter, delay, multiband limiter, 40 presets, auto on/off (sleep mode)
Max. Delay	600 ms
Network commands	On/Off, Gain, Mute, Presets, Level, Mixer, Status queries
Connectors	Ethernet, Cinch Input, pluggable system terminals for DC supply, loudspeaker and ON/OFF switchable contact
Cooling	fanless
Protective circuits	Peak limiter, current limiter and power limiter for each speaker output, short circuit and multilevel overtemperature protection
Power supply	PoE 802.3bt (60 watts) or PoE 3a (30 watts), 24 V DC 60 VA
Power consumption	
Standby	2 watts
All channels SLEEP	6,7 watts
Max. power consumption	38 watts
Peak power	60 watts
Dimensions (W × H × D)	¼ 19", 1 U, 110 × 42 × 233 mm
Weight	1,2 kg
Warranty	5 years

#### Model

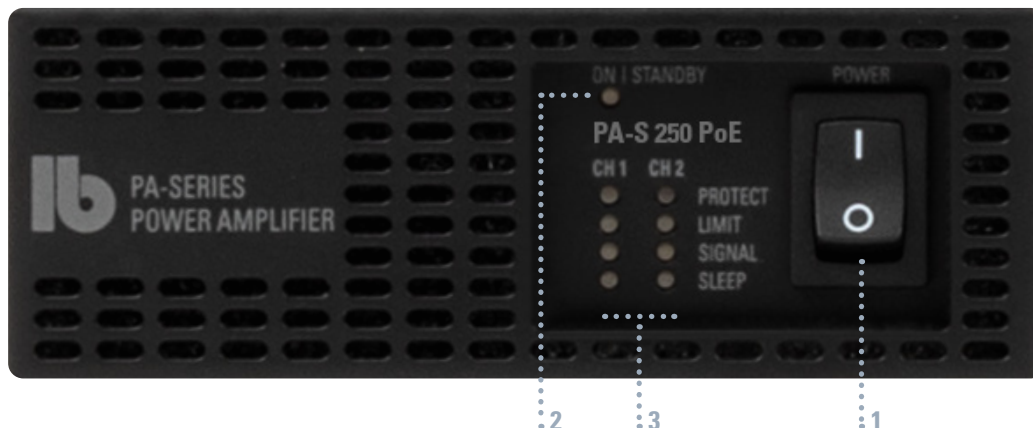
Model	Order-No.	Version
PA-S 250 PoE DANTE	3005-0017	2-channel power amplifier with DSP, PoE and DANTE

#### Accessories

Accessories	Order-No.	Version
<b>MP-PA-S</b> 	3005-0030	Mounting plate for PA-S Serie
<b>PA-T 2050</b> 	3109-0001	100 V transformer module, 2 × 50 watts, toroidal core
<b>PA-T 1 U</b> 	3109-0005	Rack cradle 19", 1 U, for up to 4 x PA-S 250 PoE or PA-T 2050

## PA-S 250 PoE DANTE

### Compact Amplifier with DSP, PoE and DANTE



#### 1 Power switch

The amplifier switches on with a delay of approx. 3 seconds.

#### 2 LED STANDBY / ON

The LED lights up red in STANDBY and green when the amplifier is switched on.

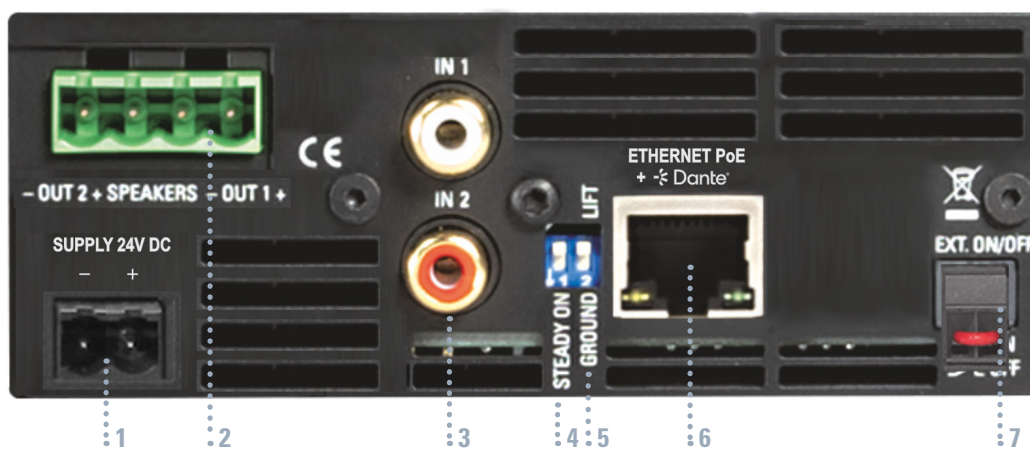
#### 3 LED displays

**SLEEP** – the corresponding power amplifier channel is in power-saving mode and is automatically reactivated when there is a signal.

**SIGNAL** – there is a signal at the output of the corresponding power amplifier channel.

**LIMIT** – the corresponding output stage channel limits. (Peak Voltage, Peak Current, Peak Power or Average Power)

**PROTECT** – the corresponding output stage channel switches off: short circuit at the output, overtemperature or defect. A flashing LED indicates that the power of the channel is reduced due to excessive operating temperature.



#### 1 124 V DC Supply

Alternative power supply to PoE.

The PA-S 250 PoE can also be connected to an external 24V power supply (60 VA min.)

#### 2 Speaker outputs

The loudspeaker outputs are equipped with plug-gable system terminals with a cable cross-section of up to 2 x 2.5 mm<sup>2</sup>. The impedance of the speakers should not fall significantly below 2 ohms.

#### 3 Cinch Inputs

Analog RCA input. The DANTE inputs and the analog inputs can be mixed in the DSP matrix.

#### 4 AUTO ON/STEADY ON – DIP switch

In the upper position the channel pair operates in AUTO-ON/ OFF mode and switch into an idle state (SLEEP) automatically if the input signal is absent for over 10 min. This reduces power consumption significantly. In the lower position the channel pair is active permanently (STEADY ON).

#### 5 GROUND LIFT-Switch

In the GROUND position (down) audio ground is directly connected to the mains ground. If the signal source is also grounded this may cause humming noise. In this case the Input connector can be separated from mains ground (LIFT position)

#### 6 Ethernet

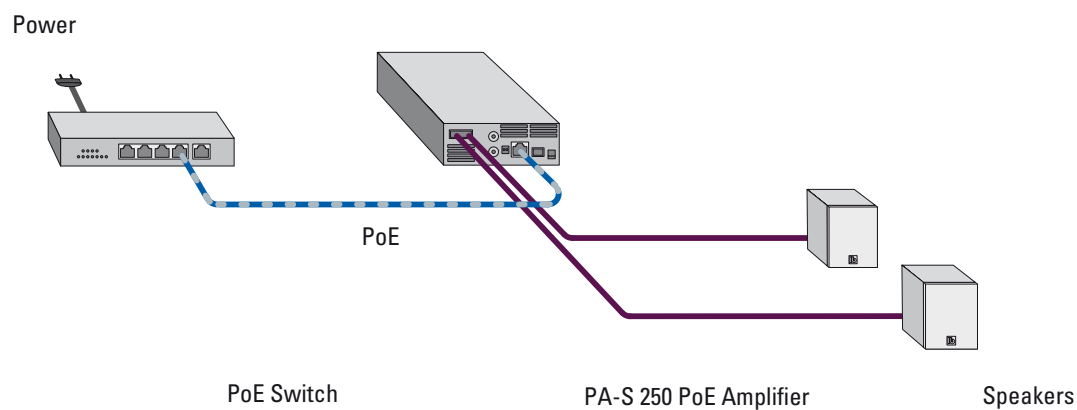
Network connection for PoE power supply, DANTE Audio over Ethernet and DSP control

#### 7 EXT. ON/OFF – N/C (short circuit plug).

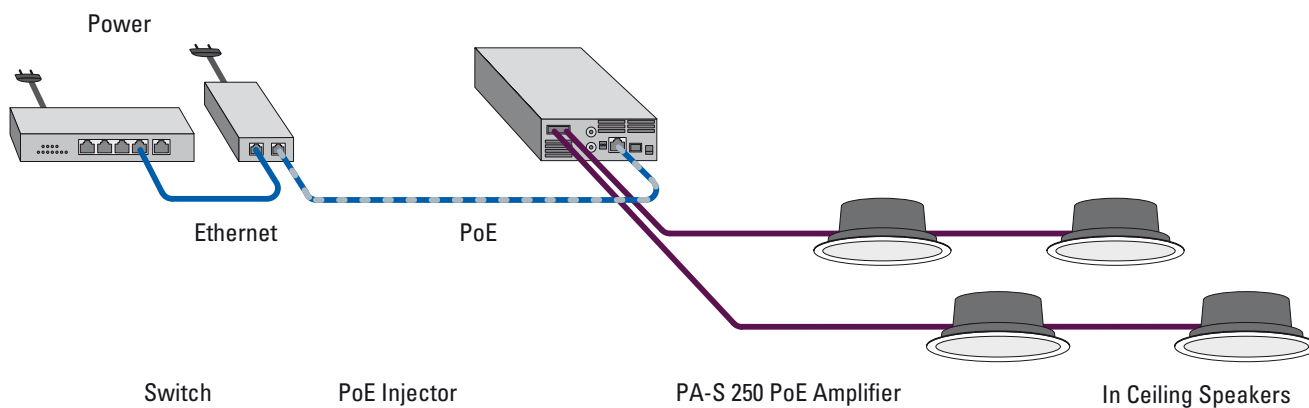
The EXT. ON/OFF-contact must be closed to activate the amplifier. It may either be closed by a shorting bridge (delivery condition) or by an external potential-free switch or contact. With this contact one or multiple amplifiers in parallel can be switched on and off via media control or voice alarm systems.

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### Connection with PoE-Switch



### Example with PoE injector, amplifier and built-in speakers in the ceiling

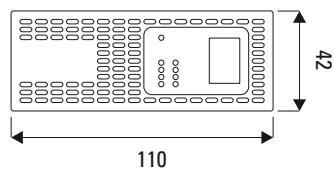


## PA-S 250 PoE DANTE

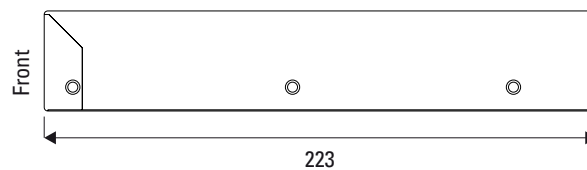
### Compact Amplifier with DSP, PoE and DANTE

#### Dimensions

Front



Sides



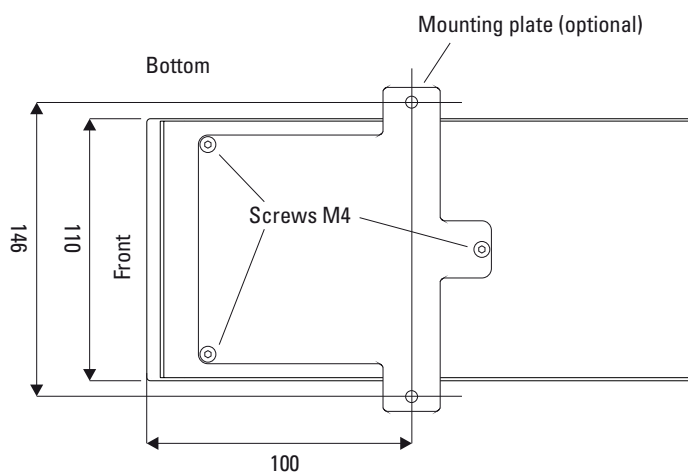
Backside



Top



Bottom



## PA-S 250 DSC / PA-S 250 DSC DANTE

### Compact Amplifier with DSP, PoE and DANTE

#### LB CONTROL App

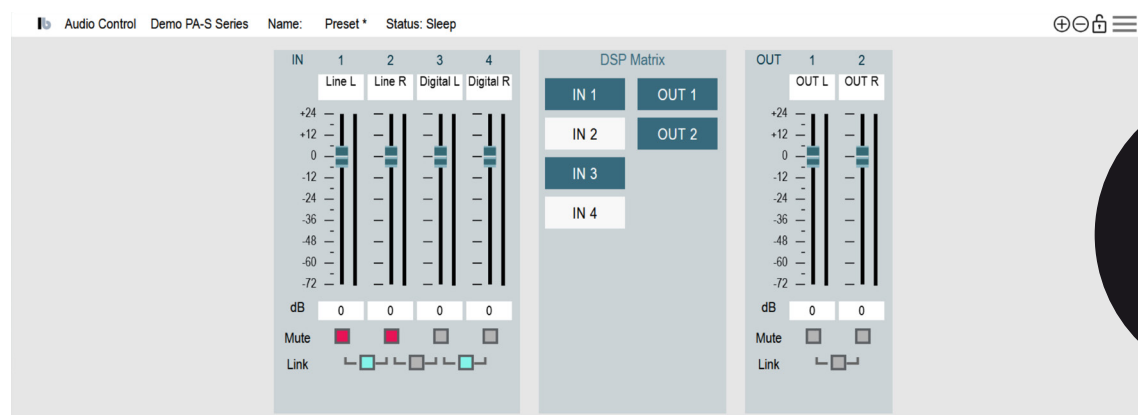
Browser-based app for configuring and controlling our amplifiers and active speakers with digital signal processors (DSPs).

One or more devices can be connected via Ethernet and configured using the **LB CONTROL App**.

With network commands, all devices can be controlled via e.g. media controls.

The app provides the appropriate user interface for the different device types. In addition to a mixer matrix, amplifiers have ten fully parametric filters, high-pass and low-pass filters, delays, compressors and limiters available for each input and output.

We are happy to create project-related presets upon request.



**LB CONTROL App**  
Download Software