



DOCUMENTATION

MANUAL PAN BEAM LOUDSPEAKERS WITH POE++

V 1.0

PB 04-D | PoE++
PB 08-D | PoE++



Shapely.
Versatile.
Functional.

Read the manual carefully before putting the device into operation.
The manual must be retained.



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

General information

Manual Pan Beam

PB 04-D | PoE+ +

PB 08-D | PoE+ +

Version: 1.0

Language: EN

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Dante® is a registered trademark of Audinate Pty Ltd and describes a digital audio network.

This document must be kept with the product or in a safe place so that it is available when needed.

If the product is resold, the document must be handed over to the new owner in printed or electronic form.

Pan Acoustics reserves the right to change/update the document without prior notice. The latest version of this document can be downloaded from the Pan Acoustics website.

Pan Acoustics GmbH

Schweigerstr. 13d | 38302 Wolfenbüttel

Tel.: +49 (0) 5331 900 95 70 | Fax: +49 (0) 5331 900 95 79

E-mail: contact@pan-acoustics.de

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1. Product description

Thank you for choosing a product from Pan Acoustics. The active line arrays with beam steering technology from the Pan Beam series with PoE connection combine an appealing architectural design and the latest Pan Powercore technology. The Pan Powercore technology provides enough power for maximum audio performance and permits to operate the loudspeaker on all common PoE standards: PoE+ (30 W) // IEEE 802.3at standard (Type 2), PoE+ + (60 W / 90 W) // IEEE 802.3bt standard (Type 3 & Type 4).

The loudspeakers are set up and controlled via the Pan Beam Setup software.

The loudspeakers can be used for different applications such as traditional AV installations, theatre and immersive sound applications. All loudspeakers from the Pan Beam series feature:

- appealing design
- natural and unaltered audio reproduction
- powerful audio DSP
- efficient digital amplifiers
- flexibility through modularity
- low current consumption and low quiescent current
- sustainable product design and manufacturing

The active loudspeaker systems of the Pan Beam series with PoE+ + can only be configured and maintained (e.g. by firmware update) using the Pan Beam Setup configuration software. The installation of the Dante Controller from Audinate Pty Ltd. on the computer is required to connect the loudspeakers to a PC.

Please read this manual carefully before putting the device into operation to ensure trouble-free operation and allow the product to develop its full potential.

2. Symbols and explanation

 **DANGER**

This symbol indicates a hazard with a high level of risk. If this hazard is not avoided, serious injury or death may result.

 **WARNING**

This symbol indicates a hazard with a medium level of risk. If this hazard is not avoided, moderate to serious injury or death may result.

 **CAUTION**

This symbol indicates a hazard with a low level of risk. Failure to observe this instruction may result in minor injuries or damage to property.

 **NOTICE**

This symbol provides important instructions for the proper handling of the product. Failure to observe this instruction may result in damage to the product or malfunctions.

3. General information and target group

All information in this manual is based on the product properties available at the time of writing and the safety regulations applicable at that time.

This manual describes the configuration, function and connection of the Pan Beam loudspeaker system variants with PoE+ + interface to an AoIP network using the Dante/AES67 audio protocol. It is aimed at system technicians and persons assigned the task of installing and operating a relevant system.

Pan Acoustics reserves the right to make changes and modifications within the scope of legal regulations and product improvements without prior notice.

This manual and all additional information required for operation must be read prior to use by all persons involved in commissioning. The manual and all additional information required must be kept within easy reach near the device.

All necessary information and documents can be obtained from the Pan Acoustics website, www.pan-acoustics.de, or per email from contact@pan-acoustics.de.

4. General Safety Regulations

The following safety regulations must be read completely and diligently before putting the device into operation and must then be kept in a safe place near the device. Reading the manual does not replace the knowledge and observance of all valid local safety rules and regulations. The information and technical specifications published in this document are based on data available at the time of publication. We reserve the right to make changes to the product aimed towards product improvement and adjustment to new applicable standards.

DANGER

The device conforms to protection class IV (safety extra low voltage). For safety reasons, the device must only be operated on a properly installed network. An existing earth contact connection must never be disconnected. The voltage of the power network must match the DC voltages indicated on the device. To prevent injuries, electric shock and fire, ensure that all persons involved in the set up, operation, dismounting or installation of the device/system have read this manual.

WARNING

To prevent electric shock,

- the product must not be connected to the power network when the enclosure is open.
- the product must only be used with intact power cords.
- the product may only be connected to a power network if its voltage is consistent with the voltage indicated on the device.
- the product must only be mounted and fixed when disconnected from the power supply.
- one must never pull on the cord, but only on the plug when unplugging the device.
- no objects must be placed on top of the power cord of the device.
- the connection cables are to be installed so that they are protected from damage due to foot traffic, pinching and tensile load.
- ensure that all devices interconnected via signal wires are operated with CEE sockets on a common protective ground.

To minimise the risk of fire or electric shock,

- the product must not be exposed to moisture or humidity (exception: versions with an appropriate IP protection class).
- no objects filled with liquid (e.g. bottles) must be placed on top of the device.
- ventilation slots must not be covered up with objects (e.g. textiles).
- the device must not be exposed to excessive heat, direct sunlight, fire or the like.
- no open sources of fire (e.g. candles) must be placed on top of or under the device.

To prevent injury, this product must be taken out of operation, clearly marked and secured against accidental operation if the product

- shows signs of visible damage.
- contains loose parts.
- no longer works flawlessly.
- has been stored for a long time under unfavourable conditions (e.g. in humid rooms).
- was exposed to severe transport stress (e.g. with unsuitable packaging).

To avoid damage to the device and injury,

- this product must be kept out of the reach of children.
- the product must be installed in a stable position.
- only accessories offered and approved by Pan Acoustics for the product must be used for mobile applications and fixed installations.

To avoid injuries such as hearing damage due to excessive volume levels, persons should

- never stand directly in front of a connected loudspeaker.
- not be exposed to high volume levels over a long period of time.

⚠ CAUTION

To prevent damage to the product, avoid

- generating acoustic feedback.
- playing back distorted signals of high power over a long period of time.
- generating impulse-like sounds (e.g. popping noises) which occur when a media player is switched on, connected or disconnected.
- connecting the product to the power supply for a long period of time without using it.
- operating the device in environments with high humidity.
- operating the device without sufficient possibility of air circulation.

⚠ NOTICE

Device protection and operating safety

- The device is completely disconnected from the AoIP network by pulling the network cable.
- The device may only be cleaned from the outside using a dry cloth.
- The original packaging or an appropriate transport box (flight case) should be used when transporting the device. The device must be protected against vibrations.

5. Safety instructions

All products from Pan Acoustics are developed and manufactured in Germany according to the latest safety regulations. Each product is thoroughly inspected prior to shipping according to in-house quality guidelines.

The device conforms to the current CE regulations for operation in residential, business, commercial and industrial areas (indoor applications).

The device must be carefully inspected upon receipt for transport damage and completeness. In case of damage, the transport company and the shipper must be notified without delay.

Safety may be compromised if the product:

- shows signs of visible damage.
- no longer works correctly.
- has been stored for a long time under unfavourable conditions.
- has been transported incorrectly (e.g. unsuitable packaging).

If the product shows signs of impairments that no longer guarantee safe operation, the device must be secured and labelled accordingly. It must also be ensured that no intentional or accidental operation by third parties is possible.

6. Setup location

The loudspeaker may only be operated in dry places guaranteeing sufficient air circulation. The loudspeaker must be protected by suitable means against live loads that could cause the loudspeaker to tip, slide, fall over or drop.

The device may be damaged by condensation. It should therefore be appropriately acclimatised before operation.

The ambient temperature during operation of the device should not exceed 40 °C and should not fall below 0 °C.

⚠ WARNING

When unpacking, it is important to pay attention to the temperature difference between the ambient temperature and the device. If the temperature difference is high, it is necessary to wait a sufficiently long time before operating the device to avoid damage due to condensation.

⚠ NOTICE

If the ambient temperature is higher than 40 °C, appropriate measures must be taken to protect the device against overheating. If the loudspeaker overheats, it shuts off automatically and only turns on again after it has cooled down.

7. Scope of delivery

Depending on the loudspeaker model, the scope of delivery includes the following:

7.1. Pan Beam PB 04-D | PoE++

Description	Quantity
Pan Beam PB 04-D PoE++	1
Protection cap (plugged into Pan Net Link port)	1
Shipping information	1

7.2. Pan Beam PB 08-D | PoE++

Description	Quantity
Pan Beam PB 08-D PoE++	1
Protection cap (plugged into Pan Net Link port)	1
Shipping information	1

⚠ NOTICE

Product-specific accessories such as wall, tripod and ceiling mounts are not part of the scope of delivery and can be obtained from a Pan Acoustics trade partner or distributor. For safe operation of the device, only accessories from Pan Acoustics may be used.

8. Definition

Pan Beam

Product series of active line arrays with beam steering technology

Pan Net

Audio signals, control signals and monitoring of active Pan Acoustics loudspeakers

Pan Beam Setup software

Software for setting up active Pan Acoustics loudspeakers

RJ45 / etherCON

Plug connection for the transmission of signals

Power over Ethernet (PoE)++

Power supply via Ethernet using an eight-core twisted pair cable with up to 90 W

Analogue audio

Transmission of analogue balanced audio signals

AES/EBU

Digital audio signal for the transmission of signals between different devices according to AES3

Dante

Digital audio network protocol for the transmission of audio signals via a 1 Gigabit LAN

Audio over IP (AoIP)

Distribution of digital audio via an IP network, e.g. Dante or AES67

USB

Serial port for data connections to devices, e.g. a computer

Daisy chain cabling

Cabling type in which the devices are connected serially, i.e. in series one after the other

Star cabling

Cabling type in which the devices are connected via a common point, i.e. switch

General Purpose Interface (GPI)

Describes a platform-independent connection between devices from different manufacturers

⚠ NOTICE

Pan Net is Pan Acoustics' control and audio distribution network. Depending on the Pan Net interface, one or more daisy chain cables or other cable types are supported. Depending on the interface, the Pan Net cabling supports two-channel analogue and digital (AES3) audio. In a Dante/AES67 network, the control data from Pan Net are tunnelled through the IP-based audio network.

9. Assembly of mounts (accessories)

Various mounts are available from the Pan Accessories range for installing the loudspeaker on walls and ceilings. An overview of the available mounts can be found at www.pan-acoustics.de.

The installation and commissioning of loudspeakers must only be carried out by qualified personnel. Ensure that the mount chosen corresponds to the requirements on the wall or ceiling structure, along with operating requirements.

National safety regulations for operation and assembly must be followed.

CONNECTION WITH THE BUILDING STRUCTURE

- It must be ensured that the ceiling/wall area where the device is to be installed is structurally suitable.
- The mount must lie flat on the surface of the building structure. The surface must not show any settlement effects even in the long term.
- For a safe and durable connection, plug and screw connections must be dimensioned according to the acting forces that may occur through lever effects.
- In case of doubt as to the type and composition of the building structure, consult a structural engineer.

CONNECTION OF THE LOUDSPEAKER AND MOUNT

- All mounts sourced via Pan Acoustics for installing the loudspeaker are delivered with suitable installation material for connection with the loudspeaker.
- The connection between the loudspeaker and the mount is made by a fixing point (e.g. a slot nut, which is inserted into the rear slot of the loudspeaker and tightened with two M6 set screws).
- To avoid damage to the mounts and the loudspeakers, no screws longer than the original ones must be used. Longer screws may destroy the stability of the loudspeaker or cause short circuits inside the loudspeaker.
- A tightening torque of 10 Nm must be observed for the screw connection between the mount and the loudspeaker.



⚠ NOTICE

You can find the installation instructions for the selected mount in the download area of our website.

10. Description of the connector panel

10.1. Connection sockets



No.	Description
[1]	Dante/AES67 connection Secondary etherCON
[2]	Dante/AES67 connection Primary etherCON
[3]	Pan Net IN / THRU ethterCON Input & output for audio signals (analogue and AES3), control signals and relay contact (GPI) Dust protection cap (factory fitted)
[4]	PoE operation LED

⚠ NOTICE

Supported sample rates in the AoIP network:
44.1 / 48 / 88.2 / 96 kHz

10.2. Status indicators of the connector panel

The [LINK/ACT] LED is green if everything is connected correctly.

The [LINK/ACT] LED is green if everything is connected correctly.

The [1 G] LED is orange if a 1 Gigabit network has been detected.

The [1 G] LED is orange if a 1 Gigabit network has been detected.

The [COM] LED flashes red if the loudspeaker communicates with the "Pan Beam Setup" software via the Dante network.

11. Information on PoE++

11.1. Supported power classes & connection cables

The interface of the loudspeakers with PoE++ supports the following power classes:

PoE power consumption:	30 W / 60 W / 90 W
Supported PoE power classes:	PoE+ // IEEE 802.3at standard (Type 2) PoE++ // IEEE 802.3bt standard (Type 3 & Type 4)
Connection cable required:	8-pin twisted pair cable with solid copper conductor

⚠ NOTICE

The type and design of the connection cable must be selected such that minimal heating of the cable occurs. Depending on the cable length, a minimum cross-section of AWG23 or better, e.g. AWG22 or AWG21, must be selected; S/FTP cables are preferred. Whether a twisted pair cable of category 5, 6 or 7 has to be used, depends on the required transmission speed of the network. It has to be ensured that twisted pair cables with solid copper conductors are used to connect the devices in PoE operation.

To avoid damage and malfunctions, the recommended bending radius of the connection cables used must be observed.

11.2. PoE connection

⚠ WARNING

To avoid damage to the loudspeaker, the Pan Net Link port must not be connected to a LAN connection with or without PoE!



If the loudspeaker is connected to a PoE port of a switch or injector, the loudspeaker starts after a short period of time. The green LED for the operating status lights up.

LED indicator	Meaning
○	Off Defective / no power supply
●	Is green Ready for operation, LED is dimmed out after 120 s
✿	Flashes green PoE power class does not correspond to the specifications

⚠ NOTICE

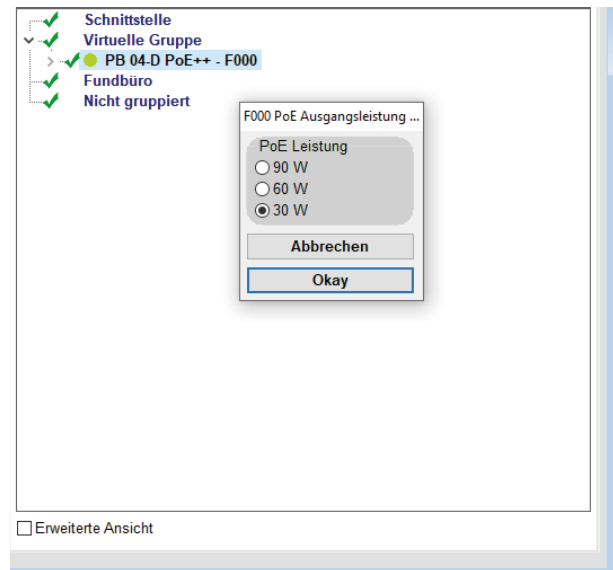
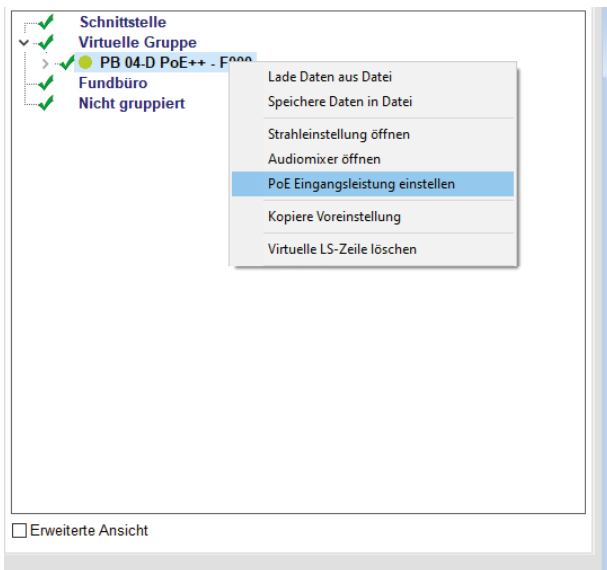
The Primary port must be used for PoE power supply.

The Primary port is prioritised in the Dante audio network, e.g. for firmware updates (recovery) concerning the Dante audio network.

11.3. PoE – setting the PoE power for the loudspeaker

The PoE power for the PB 04-D | PoE++ and PB 08-D | PoE++ loudspeakers can be set in the loudspeaker settings of the Pan Beam Setup program (software version 2V95 or higher required).

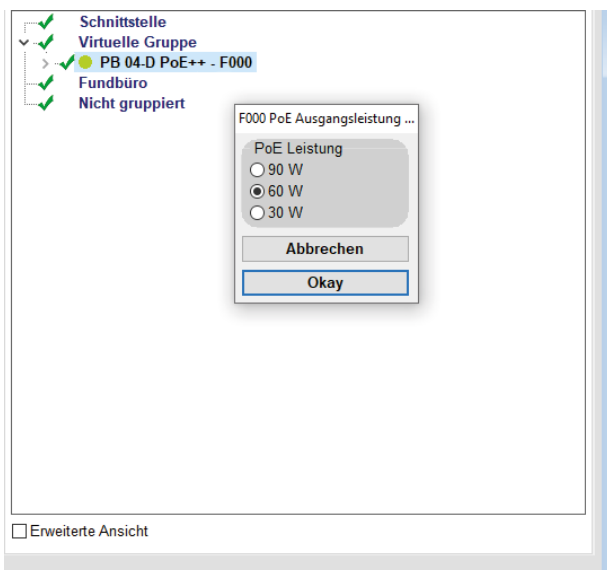
Setting the PoE input power sets internal parameters for the safe operation of the loudspeaker in the selected PoE power type.



To set the PoE power, select the loudspeaker and open the context menu with the right mouse button. Select the "Set PoE input power" menu item.

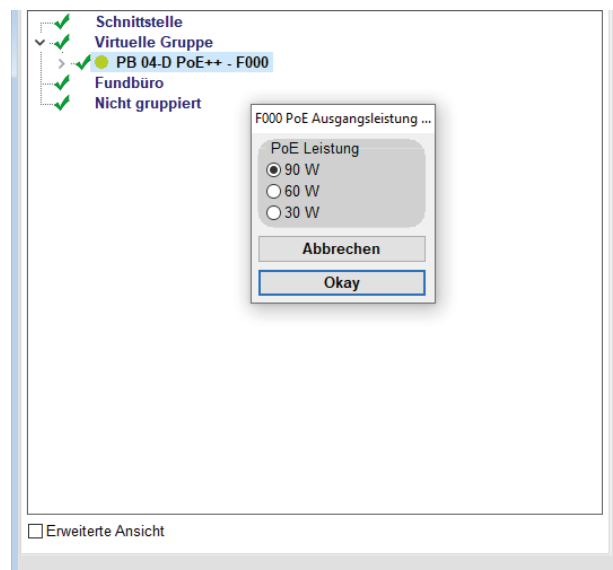
PoE 30 W operation:

Use the buttons to select the corresponding PoE input power for the loudspeaker.



PoE 60 W operation:

Use the buttons to select the corresponding PoE input power for the loudspeaker.

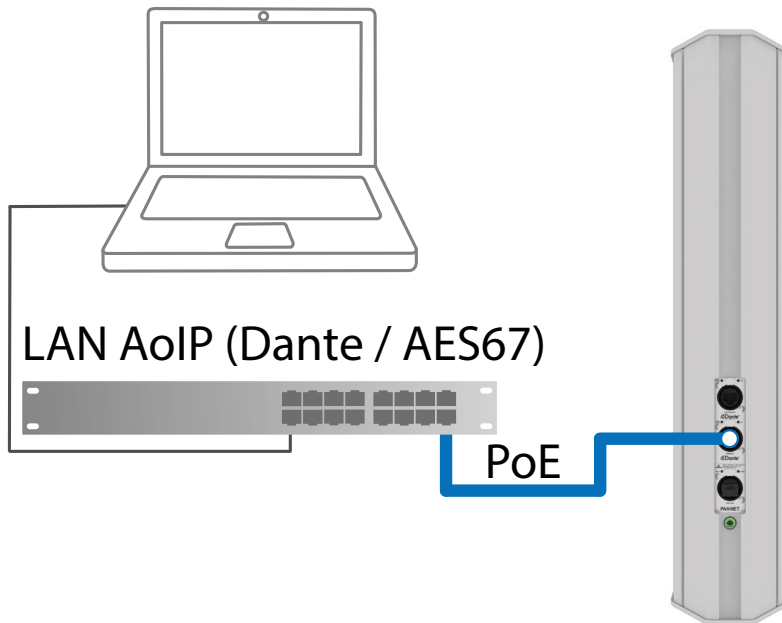


PoE 90 W operation:

Use the buttons to select the corresponding PoE input power for the loudspeaker.

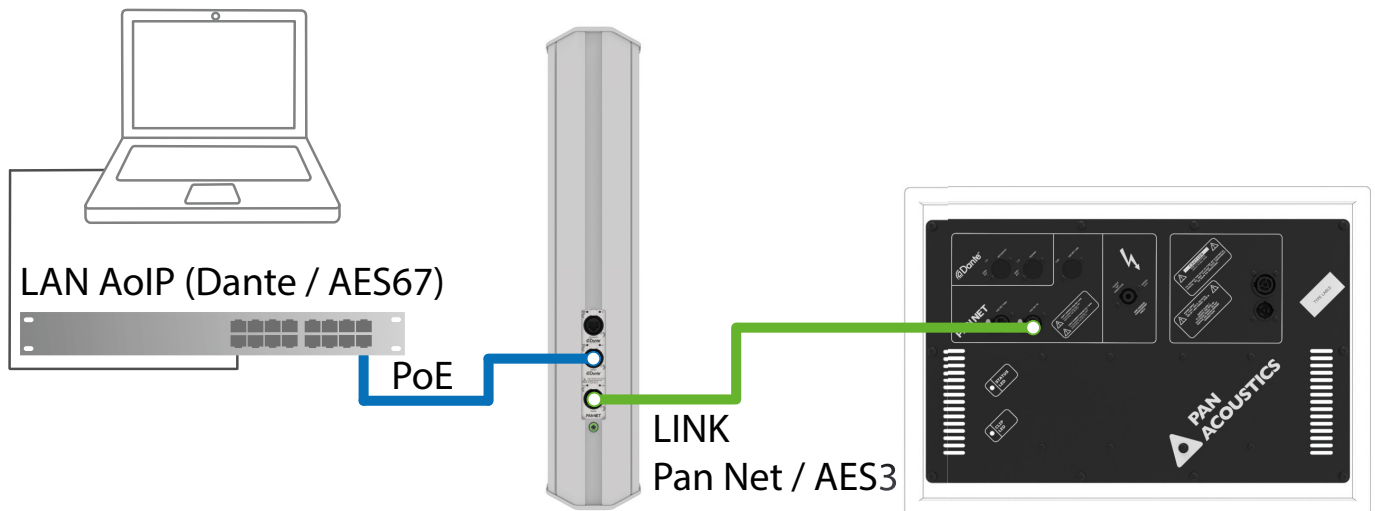
12. Audio and control data connections

12.1. AoIP (Dante/AES67)



12.2. AoIP (Dante/AES67) -> Pan Net Link / AES3

Via the Pan Net Link connection, audio and control data can be sent to an active subwoofer with AES/EBU (AES3). Alternatively, a loudspeaker with AES/EBU interface from the Pan Beam series can be connected.

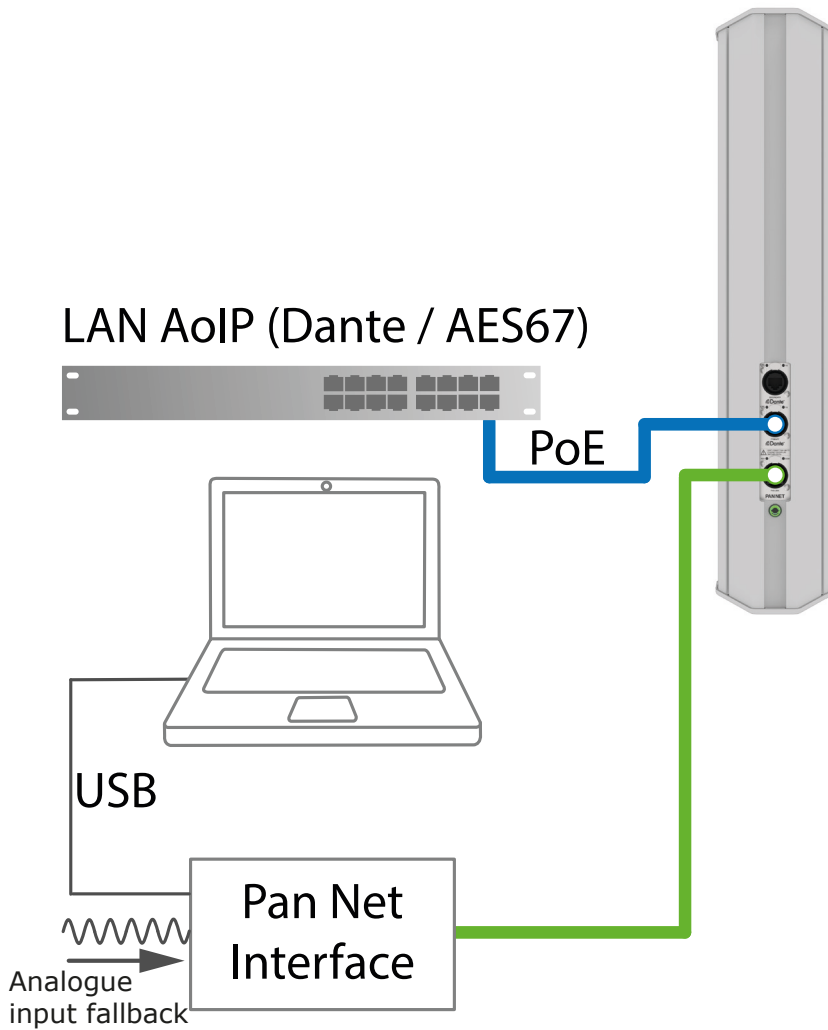


⚠ NOTICE

High-quality cables must be used for safe and reliable signal cabling. At least CAT5e S/STP or CAT6 F/STP network cables must be used for the Pan Net cabling. At least CAT6 network cables with appropriate shielding must also be used for the cabling of IP networks.

Long Pan Net / AES3 cable lengths without termination at the terminal device must be avoided. There is a separately available RJ45 connector with terminating resistor for termination.

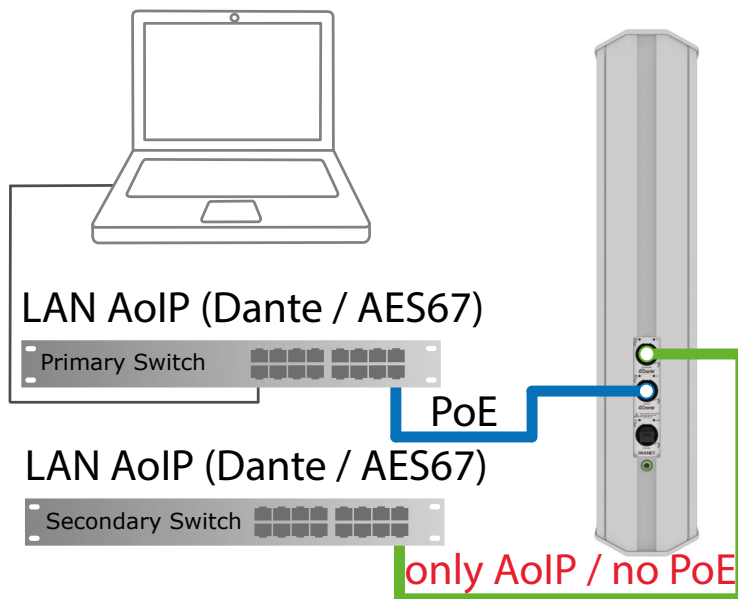
12.3. AoIP (Dante/AES67) via LAN and parameterisation via Pan Net port & analogue fallback



⚠ NOTICE

If the Pan Con Pan Net interface is used for parameterising the loudspeaker, the network settings of the Dante interface can be reset via the Pan Beam Setup software. Via the Pan Con Pan Net interface, an analogue fallback audio signal can be sent via Input A of the interface.

12.4. AoIP (Dante/AES67) redundant cabling







⚠ NOTICE

It must be ensured that the loudspeaker only receives the supply voltage for its operation via a single network connection with Power over Ethernet. If power is simultaneously supplied via the second network connection with Power over Ethernet, this can lead to damage.

13. Error description



Coloured LED for the operating status

Indicator		Meaning
	Off	No power supply LED switched off via software
	Is green	Ready for operation
	Flashes orange	Communication
	Is / flashes red	Error

Problem	Cause	Remedy
Signal LED off	Loudspeaker has no power LED has been deactivated in the software	Check the connection to the power supply Activate LED in the software
Signal LED is / flashes red	Loudspeaker has detected an error	Contact service department
Signal LED flashes orange	Communication between software and loudspeaker, communication between media controller and loudspeaker	None, as this is normal behaviour
Connected loudspeaker does not appear in the software	Loudspeaker is not connected to Pan Net or Dante	Check connection, verify IP address/subnet in the Dante Controller
	1G status LED on the Dante interface of the loudspeaker off	Check the connection to the switch of the PC and the loudspeaker
	COM status LED on the Dante interface of the loudspeaker does not flash	Start software correctly and select Dante interface correctly
No audio playback	No audio signal connected	Connect audio signal via audio input on the interface, crosspoint not set in the Dante Controller routing matrix

Problem	Cause	Remedy
No audio playback despite connection	Wrong audio input chosen	Check audio connection for correct connection
No audio playback despite correct connection	No audio signal	Check audio signal, check connection to the source
Loudspeaker switches off during operation	Input level too high PoE output power from Switch too low	Input Gain / Input Level adjust, maximum input level of +8 dBu note Increase PoE++ power from the switch
Dante Distorted audio playback	Incorrect sample rate or limited bandwidth in the network	Set the sample rate correctly, check bandwidth in the network
No connection via the Pan Net interface	USB cable not plugged in correctly USB cable defective USB cable inserted in USB port after Pan Beam Setup program launch	Check cable for correct connection Replace USB cable Relaunch Pan Beam Setup program
Media controller does not work	Pin assignment incorrect Baud rate incorrect Faulty instruction set	Check pin assignment Set correct baud rate Check instruction set

NOTICE

If the error is not specified in the above table or cannot be remedied using the measures mentioned, please consult the technical support of Pan Acoustics GmbH.

For contact details, see chapter 19.

14. Service and repair

Service and repair work may only be carried out by Pan Acoustics or by persons and partners authorised and instructed by Pan Acoustics.

No service or repair work may be carried out on the device beyond the stated maintenance measures.

For contact details, *see chapter 19.*

15. Firmware updates

Firmware updates are used to maintain the software installed on the device. There are two DSP modules for the active loudspeakers with Dante interface: Dante interface and Pan Audio DSP.

Pan Acoustics has no influence on the firmware of the manufacturer Audinate for the Dante audio network. The software for these interfaces must be updated at certain intervals to ensure compatibility with other products equipped with the Dante interface; see chapter 15.1. Dante interface.

The Pan Audio DSP rarely needs a firmware update. See chapter 15.2. Pan Audio DSP.

15.1. Dante interface

It may be necessary to update the firmware of the Dante interface. The required firmware versions are available via the Dante Controller software. This software can be used to update the firmware of the interface via the network.

15.2. Pan Audio DSP

A firmware update of the Pan Audio DSP must only be carried out upon request of the Pan Beam Setup software or by the technical support of Pan Acoustics. The firmware is updated via the Pan Beam Setup software and the Pan Con interface. To do so, the interface must be connected to the Pan Net Link port.

16. Maintenance measures

The following measures must be carried out at regular intervals:

Cleaning

The enclosure should be regularly dusted off with a damp cloth and checked for damage.

Visual and functional check

The installed device should be regularly subjected to a visual check.

The following checks must be carried out:

- Check signal connections and network connection for correct fit and damage
- Check that the grille is firmly inserted into the enclosure
- Check the enclosure for damage
- Check ventilation slots in the connector panel; ventilation must not be impaired by foreign bodies

17. EC conformity (CE Mark)



The declaration of conformity for the relevant product from the Pan Beam series can be requested from Pan Acoustics.

18. WEEE declaration (disposal)



The waste bin symbol indicates that electrical and electronic devices must not be disposed of with household waste after their useful life. This symbol can be found on the type plate of our products. Dispose of the device in accordance with the applicable regulations and any contractual agreements. If you have any questions about disposal, please contact your dealer, distributor or us.

19. Contact address

Pan Acoustics GmbH
Schweigerstr. 13d

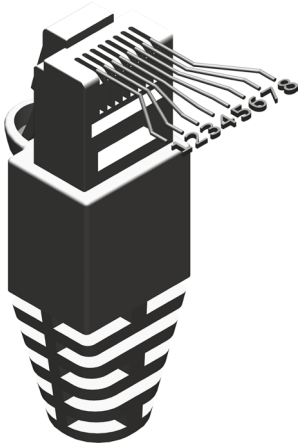
Tel.: +49 (0) 5331 900 95 70
Fax: +49 (0) 5331 900 95 79

38302 Wolfenbüttel
Germany

E-mail: support@pan-acoustics.de

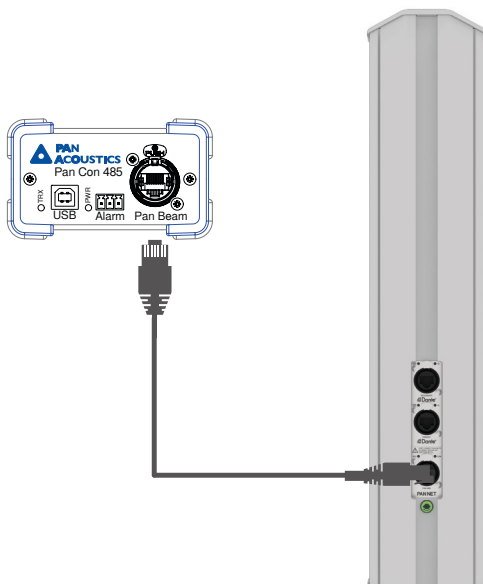
20. Appendix

20.1. Pan Net – RJ45 pin assignment



Pin	Description
1	Input A +
2	Input A -
3	Relay contact +
4	Input B + (AES/EBU)
5	Input B - (AES/EBU)
6	Relay contact -
7	RS485 +
8	RS485 -
Enclosure	PE (earth / ground) shielding

20.2. Alarm contact (alarm loop)



Each Pan Beam loudspeaker has an alarm contact. The loudspeaker can indicate a detected error via this alarm contact. For this purpose, a switch relay is installed in the loudspeaker, which is closed in normal operating status. If the loudspeaker is not in operation, there is no power supply. If an internal error is reported via the DSP, the relay is opened.

Pan Beam loudspeakers connected to a Dante network also have this function. This function can be used via the Pan Net Link interface. For this purpose, the loudspeaker must be connected to an appropriate interface, e.g. Pan Con, via the Pan Net Link interface by means of a network cable. Via the alarm contact on the Pan Con interface, the alarm contact status can then be monitored by means of a GPI on the media controller.

20.3. Media controll

20.3.1. Dante

Via the Dante audio network of the manufacturer Audinate Pty Ltd. it is possible to activate the pre-sets via UDP commands.

General information

The following control commands must be transmitted completely. The timing indicated below must be taken into account. There is no feedback. All Pan Beam loudspeakers in the audio network execute the command.

Timing

A waiting time of at least 3 s must be adhered to between the individual commands.

Network address and port

Address: 224.0.1.4

Port: 4712

Calling up presets	String (HEX)
Preset 1	50 41 4e 41 43 4f 55 53 54 49 43 53 02 46 46 46 45 52 1c 30 31 1c 30 32 30 32 0d
Preset 2	50 41 4e 41 43 4f 55 53 54 49 43 53 02 46 46 46 45 52 1c 30 32 1c 30 32 30 33 0d
Preset 3	50 41 4e 41 43 4f 55 53 54 49 43 53 02 46 46 46 45 52 1c 30 33 1c 30 32 30 34 0d
Preset 4	50 41 4e 41 43 4f 55 53 54 49 43 53 02 46 46 46 45 52 1c 30 34 1c 30 32 30 35 0d
Preset 5	50 41 4e 41 43 4f 55 53 54 49 43 53 02 46 46 46 45 52 1c 30 35 1c 30 32 30 36 0d

⚠ NOTICE

Depending on the network configuration in the managed switch, it may be necessary to include the broadcast address "224.0.1.4" and the ports "4711" and "4712" in the multicast configuration.

20.3.2. Pan Net Link port

Via the Pan Splitter 4/4 Pan Net interface, the presets stored in the loudspeakers can be activated using a media controller. To do so, connect the media controller to the specified interfaces via the RS485 interface.

The following control commands must be transmitted completely to activate the presets stored in the loudspeakers. The indicated timing must be taken into account. There is no feedback about the execution of the command to the controller. All active Pan Acoustics loudspeakers with Pan Net support that are in the same Pan Net area execute the command.

Timing

A waiting time of at least 3 s must be adhered to between the individual commands.

⚠ NOTICE

Mixed operation on the RS485 bus with other devices of third-party manufacturers is not permitted due to the different protocols!

This may lead to a malfunction and/or failure of the connected loudspeakers. Reactivation is only possible via technical support.

Parallel operation of a media controller and the Pan Beam Setup program is not possible and must be avoided.

Control commands

Calling up presets	String (HEX)
Preset 1	0x02 0x46 0x46 0x46 0x45 0x52 0x1C 0x30 0x31 0x1C 0x30 0x32 0x30 0x32 0x0D
Preset 2	0x02 0x46 0x46 0x46 0x45 0x52 0x1C 0x30 0x32 0x1C 0x30 0x32 0x30 0x33 0x0D
Preset 3	0x02 0x46 0x46 0x46 0x45 0x52 0x1C 0x30 0x33 0x1C 0x30 0x32 0x30 0x34 0x0D
Preset 4	0x02 0x46 0x46 0x46 0x45 0x52 0x1C 0x30 0x34 0x1C 0x30 0x32 0x30 0x35 0x0D
Preset 5	0x02 0x46 0x46 0x46 0x45 0x52 0x1C 0x30 0x35 0x1C 0x30 0x32 0x30 0x36 0x0D

⚠ NOTICE

The prefix 0x in the string (HEX) must be adapted or can be omitted depending on the media controller used. Please refer to the manual of the media controller used for the relevant information.

20.3.3. Crestron

A corresponding module is available for operation with a Crestron media controller. The module can be obtained from the Crestron website or from Pan Acoustics.

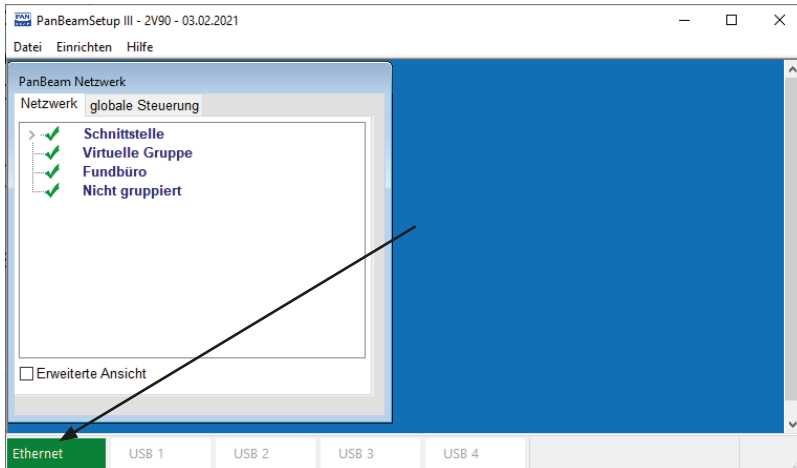
Pan Net / Crestron interface configuration

RS485 interface configuration

Baud rate	38,400 ± 3%
Data bits	8
Parity	none
Stop bits	2
Flow control	none

20.4. Dante

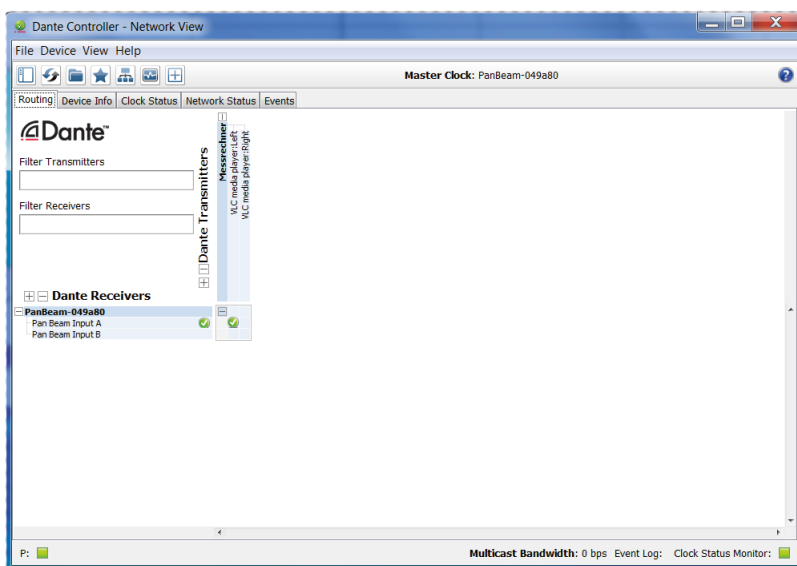
20.4.1. Setup



The loudspeakers in the Pan Beam series are to be set up through the Pan Beam Setup software. The Dante Controller software from Audinate must be installed to access a Dante network via the software. After successful installation, the Dante interface (Ethernet) appears in the footer of the Pan Beam Setup software.

The latest version of the Dante Controller software must be installed accordingly. Link for download: <https://www.audinate.com>

20.4.2. Routing



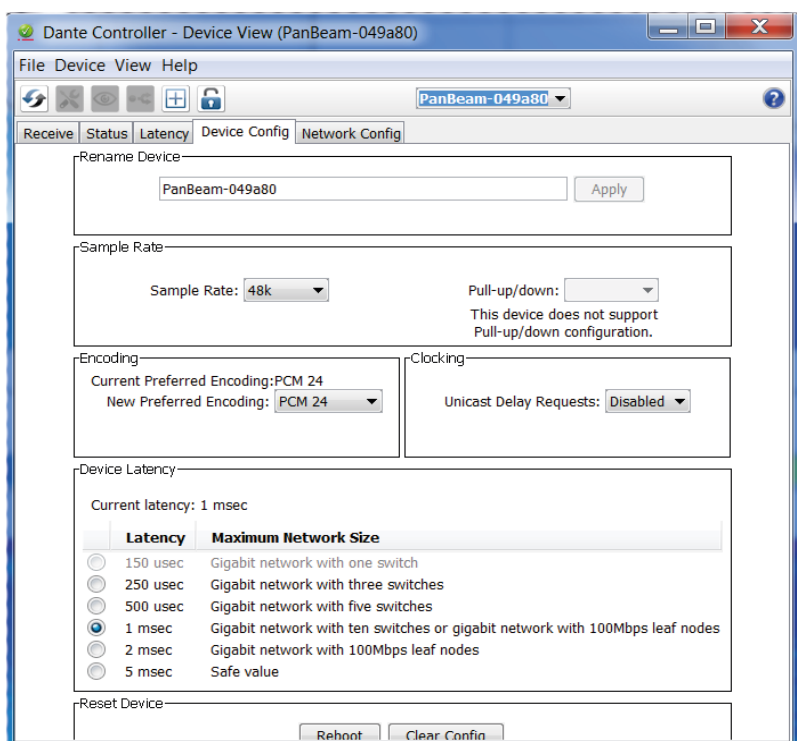
A Pan Acoustics loudspeaker appears in the Dante network under the "Dante Receivers" tab. The loudspeaker has two inputs, Input A and Input B.

For audio routing, the relevant connection must be set between the desired Dante transmitter and the Pan Beam loudspeaker.

⚠ NOTICE

The relevant audio source (Input A and/or Input B) must also be activated in the loudspeaker via the Pan Beam Setup software.

20.4.3. Device configuration



Various settings in the Dante interface of the loudspeakers can be made via the "Device Config" tab.

Rename device:

Assign a name for the speaker

Sample rate:

44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz

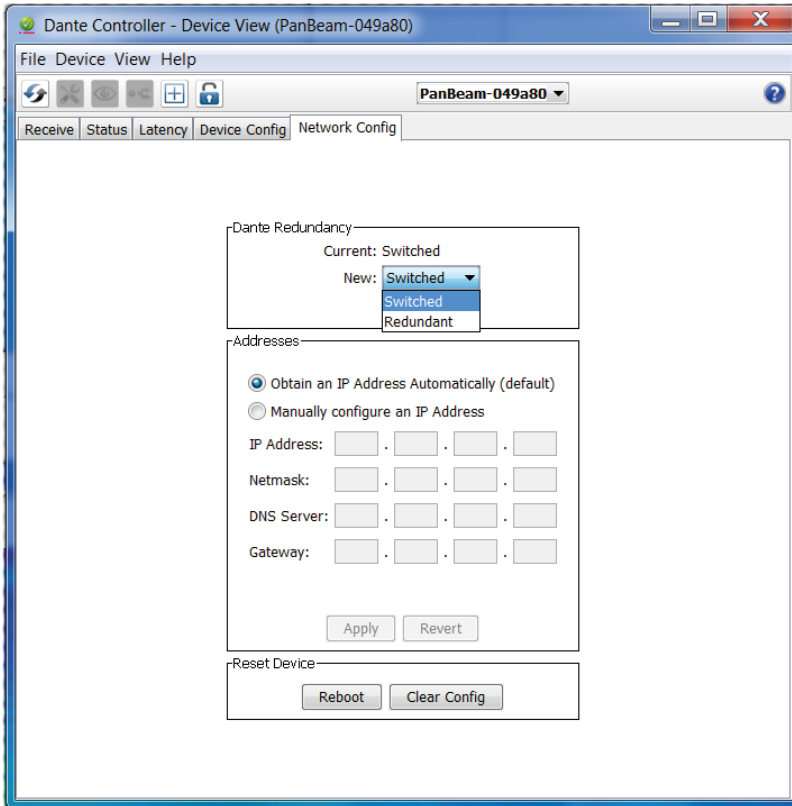
Encoding:

Pan Beam loudspeakers support PCM24 and PCM32 encoding

Device latency and clocking

See Audinate Dante information at <http://www.audinate.com>

20.4.4. Network configuration



The Dante interface of the loudspeakers supports the “switched” and “redundant” modes in the Dante network.

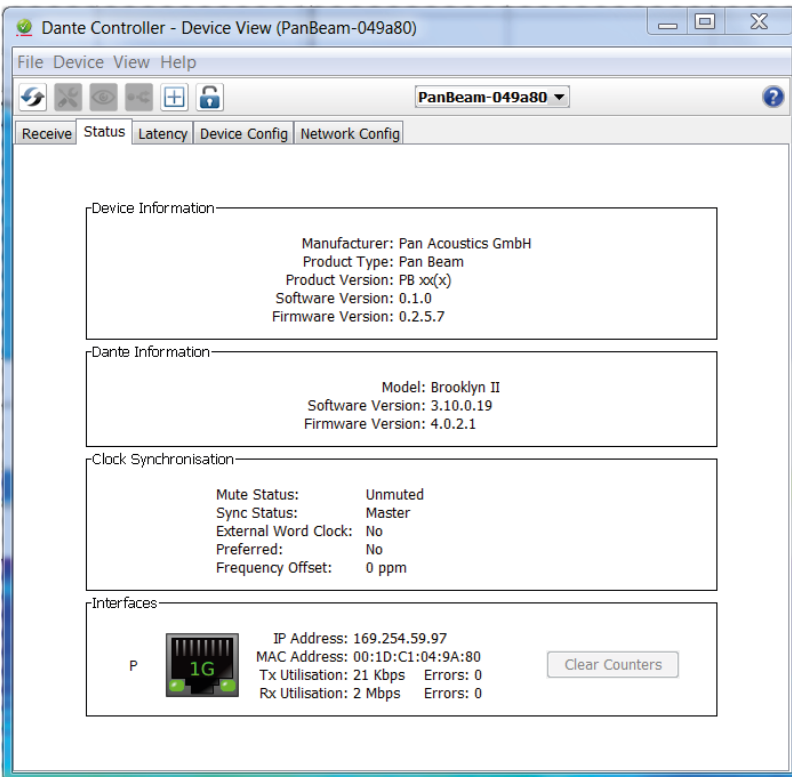
Switched:

If the Dante interface is set to “switched”, an additional Dante device, e.g. a stage box, can be connected to the secondary port and operated in the Dante network. Connecting another Dante-capable device to the secondary port in the “switched” mode is technically possible, but not recommended.

Redundant:

If the Dante interface is set to “redundant”, the Pan Beam loudspeaker can be connected to the redundant Dante network with a second network cable.

20.4.5. Status



Via the “Status” tab, information on the device, firmware and software version, clock status and network interface can be called up.

20.5. Technical data

For technical data of the products mentioned in this manual, see the latest data sheets of the products. These are available on the Pan Acoustics website under “Downloads”.

CONTACT:

Pan Acoustics GmbH | Schweigerstr. 13d | D-38302 Wolfenbüttel | Germany

Tel.: +49 (0) 5331 900 95 70 | Fax: +49 (0) 5331 900 95 79 | E-mail: contact@pan-acoustics.de

