



AMP 205

2-CHANNEL MINI INSTALLATION POWER AMPLIFIER 2X50 W @ 4 OHM
LDAMP205

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ENGLISH

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YOU HAVE MADE THE RIGHT CHOICE!

We have designed this product to work reliably for many years. This is what LD Systems stands for with its name and its many years of experience as a manufacturer of high-quality audio products. Please read these operating instructions carefully, so that you can quickly get the most out of your LD SYSTEMS product. For more information about **LD SYSTEMS**, please visit our internet page WWW.LD-SYSTEMS.COM

ABOUT THIS MANUAL

- Read the safety instructions and the entire manual carefully before commissioning.
- Observe the warnings on the unit and in the operating instructions.
- Always keep the operating instructions within reach.
- If you sell or pass on the appliance, be sure to hand over these operating instructions as well, as they are an essential part of the product.

INTENDED USE

The product is a device for professional audio installation!

The product was developed for professional use in the field of audio installation and is not intended for use in households! Furthermore, this product is intended for installation by qualified persons with expertise and for operation by instructed persons!

Use of the product outside the specified technical data and operating conditions is considered improper use! Liability for damage and third-party damage to persons and property due to inappropriate use is excluded!

The product is not suitable for:

- Persons (including children) with limited physical, sensory or mental abilities or lack of experience and knowledge.
- Children (children must be instructed not to play with the device).

DEFINITIONS AND SYMBOL EXPLANATIONS

1. **DANGER:** The word DANGER, possibly in combination with a symbol, indicates immediately dangerous situations or conditions for life and limb.
2. **WARNING:** The word WARNING, possibly in combination with a symbol, indicates potentially dangerous situations or conditions for life and limb.
3. **CAUTION:** The word CAUTION, possibly in combination with a symbol, is used to indicate situations or conditions that may lead to injury.
4. **ATTENTION:** The word ATTENTION, possibly in combination with a symbol, refers to situations or states that can lead to damage to property and/or the environment.



This symbol identifies hazards that can cause electric shock.



This symbol identifies hazardous areas or hazardous situations.



This symbol indicates hazards caused by hot surfaces.



This symbol indicates dangers due to high volume levels.



This symbol indicates additional information on the operation of the product.



This symbol denotes a device that does not contain any user-serviceable parts.



This symbol indicates electrical equipment designed primarily for indoor use.

SAFETY INSTRUCTIONS



HAZARD:

1. Do not open the device and do not perform any modifications.
2. If your device no longer functions properly, if liquids or objects get inside it or if it has been damaged in any other way, switch it off immediately and disconnect it from the mains. The device may be repaired only by authorised repair technicians.
3. For devices of protection class 1, the protective conductor must be connected correctly. Never disconnect the protective conductor. Devices of protection class 2 do not have a protective conductor.
4. Ensure that live cables are not kinked or otherwise mechanically damaged.
5. Never bypass the device fuse.



WARNING:

1. The device may not be operated if it shows obvious signs of damage.
2. The device may only be installed in a voltage-free state.
3. If the mains cable of the device is damaged, do not operate the device.
4. Permanently connected power cables may only be replaced by a qualified person.

**ATTENTION:**

1. Do not operate the unit if it has been exposed to large temperature fluctuations (for example, after transport). Moisture and condensation can damage the device. Switch on the device only when it has reached room temperature.
2. Make sure that the voltage and frequency of the mains supply correspond to the values indicated on the unit. If the device has a voltage selector switch, do not connect the device until it has been set correctly. Use only suitable power cables.
3. To disconnect the unit from the mains at all poles, it is not sufficient to press the on/off switch on the unit.
4. Make sure that the fuse used corresponds to the type printed on the unit.
5. Make sure that appropriate measures have been taken against overvoltage (e.g. lightning strike).
6. Observe the specified maximum output current on units with Power Out connection. Ensure that the total current consumption of all connected devices does not exceed the specified value.
7. Replace pluggable mains cables only with original cables.

**HAZARD:**

1. Danger of suffocation! Plastic bags and small parts must be kept out of reach of persons (including children) with reduced physical, sensory or mental capabilities.
2. Danger from falling down! Make sure that the device is securely installed and will not fall down. Only use suitable stands or mounts (particularly for fixed installations). Ensure that accessories are properly installed and secured. Ensure that applicable safety regulations are observed.

**WARNING:**

1. Use the device only in the manner intended.
2. Operate the device only with the accessories recommended and intended by the manufacturer.
3. During installation, observe the safety regulations applicable in your country.
4. After connecting the unit, check all cable routes to avoid damage or accidents, e.g. due to tripping hazards.

Always observe the specified minimum distance to normally flammable materials! Unless explicitly stated, the minimum distance is 0.3 m.

**CAUTION:**

1. In the case of moving components such as mounting brackets or other moving components, there is a possibility of jamming.
2. In the case of units with motor-driven components, there is a risk of injury from the movement of the unit. Sudden device movement can cause shock reactions.

**ATTENTION:**

1. Do not install or operate the appliance near any radiators, heat registers, stoves or other heat sources. Ensure that the device is always installed in such a way that it is sufficiently cooled and cannot overheat.
2. Do not place ignition sources such as burning candles near the appliance.
3. Ventilation openings must not be covered and fans must not be blocked.
4. Use the original packaging or packaging provided by the manufacturer for transport.
5. Avoid shock or impact to the unit.
6. Observe the IP protection class as well as the ambient conditions such as temperature and humidity according to the specification.
7. Devices can be constantly further developed. In the event of deviating information on operating conditions, performance or other device properties between the user manual and the device labelling, the information on the device always takes priority.
8. The unit is not suitable for tropical climates and for operation above 2000 m above sea level.

**CAUTION:**

Connecting signal cables can cause a lot of noise. Make sure that devices connected to the output are muted when plugged in. Otherwise, noise levels may cause damage.

**CAUTION: HIGH VOLUME AUDIO PRODUCTS!**

This device is designed for professional use.

The commercial operation of this device is subject to the applicable national regulations and guidelines for accident prevention.

Hearing damage due to high volume and continuous exposure: Use of this product may produce high sound pressure levels (SPL) which may cause hearing damage.

Avoid exposure to high volumes.

**NOTES FOR INDOOR INSTALLATION UNITS**

1. Units for installation applications are designed for continuous operation.
2. Equipment for indoor installation is not weather-resistant.
3. Surfaces and plastic parts of installation equipment can also age, e.g. due to UV radiation and temperature fluctuations. As a rule, this does not lead to functional restrictions.
4. With permanently installed devices, the accumulation of impurities, e.g. dust, is to be expected. Always observe the care instructions.
5. Unless expressly stated on the unit, the units are intended for installation heights of less than 5 m.

PACKAGING CONTENT

Remove the product from the packaging and remove all packaging material. Please check the completeness and integrity of the delivery and notify your distribution partner immediately after purchase if the delivery is not complete or if it is damaged.

The packaging includes:

- 1 x AMP 205 installation amplifier
- 1 x power supply unit
- 1 set of terminal blocks
- 4 x rubber foot (pre-assembled)
- 1 x mounting set for under- or on-table mounting
- User manual

INTRODUCTION

The LD AMP205 is a professional 2-channel mini installation amplifier. Part of the TICA® series, it combines a compact size, passive cooling, and high efficiency – ideal for a diverse range of audio installation applications.

Powered by a highly efficient 2x50W Class-D amplifier, it features 4 Ohm outputs and a user-friendly front panel, equipped with signal, clip, and protection LEDs. A gain switch helps the amplifier deal with a variety of input sources.

Its tiny 106 x 44 x 222 mm form factor and included mounting plates allow it to be installed discreetly almost anywhere; behind screens, under tables or even in air-handling spaces and above plenum ceilings. Alternatively, it fits into 1/3 19 inch rack. Use the optional rack tray to slot up to three TICA® series products alongside each other and build a system to your exact requirements, using minimal rack space.

With remote control connectivity for third-party devices, you can adjust volume on either channel or put the power amplifier into standby mode at any time, even when it's hidden.

Optional auto-standby saves power when no audio is running.

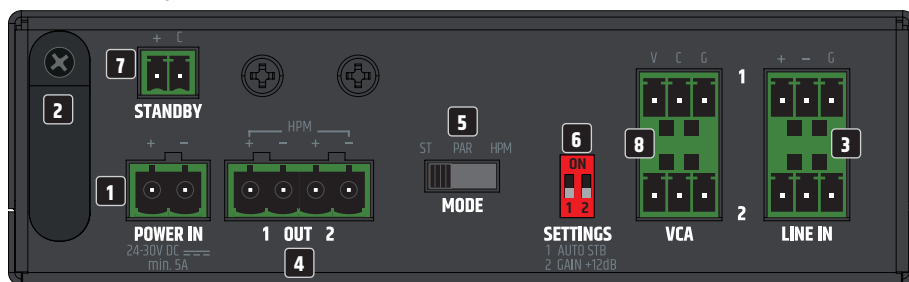
Terminal block connections for balanced line inputs and loudspeaker outputs make installation simple.

The perfect solution for professional installers and users looking for a compact, highly efficient and easy-to-integrate solution.

FEATURES

- Professional mini amplifier
- 2 x 50W Class-D amplifier with low impedance outputs
- Small form factor 1/3 19" rack, 1U
- Silent operation with passive cooling
- Connect to third party control for remote standby and volume control
- External 100–240V power supply
- Mounting plates for flexible inconspicuous installation, even above suspended ceilings
- Auto standby to save power
- Balanced line input and loudspeaker output on terminal strips
- User-friendly front panel with signal, clip and protection LEDs
- Optional rack tray for combining with other TICA® series products

CONNECTIONS, OPERATING AND DISPLAY ELEMENTS



1 POWER IN

Terminal block connection for the device's power supply. To avoid damage to the device, please use only the original power supply (power supply included).

2 STRAIN RELIEF

Use the strain relief for the flexible cable of the power supply unit to protect the device's power terminal block connector and the power supply terminal block from damage and to prevent the terminal block from being pulled out unintentionally.

3 LINE IN 1 / 2

Analogue audio inputs with balanced terminal block connections. The +, - and G poles are for the balanced input signal (suitable for unbalanced cabling). Terminal blocks are included in the packaging content.

4 OUT 1 / 2

Loudspeaker outputs 1 and 2 for connecting low-impedance loudspeakers (ST and PAR mode: min. 4 ohms each; HPM mode min. 2 ohms). Please observe the correct assignment of the terminal block poles (see TERMINAL BLOCK CONNECTIONS in this manual). The total power handling of the connected speakers should be approximately equal to the amplifier power.

5 MODE

Before using the unit, make sure that the switch is in the correct position!

ST: Stereo mode. LINE IN 1 is sent to OUT 1, LINE IN 2 to OUT 2.

PAR: Parallel mode. LINE IN 1 and LINE IN 2 are mono summed and sent simultaneously to OUT 1 and OUT 2. The volume of the two channels is adjusted individually with the VOLUME 1 and 2 level controls on the front panel.

HPM: HPM: The High-Power mode allows users to connect speakers or speaker lines with an impedance of 2 ohms to the amplifier (amplifier power: 100 W @ 2 Ohm). Using higher impedance loads may not fully utilize the benefits of HPM mode. Use LINE IN 1 as the signal input and the VOLUME 1 level control on the front panel to adjust the volume.

CAUTION! Please observe the correct assignment of the terminal block poles (see TERMINAL BLOCK CONNECTIONS in this manual).

6 SETTINGS

DIP switch 1 **AUTO STB**: Move the switch to the ON position to activate the unit's automatic standby function.

If the standby function is activated, the amplifier is automatically set to standby mode if no audio signal is detected for about 20 minutes. In this way, power consumption is sensibly reduced. As soon as an audio signal is present again, the amplifier is automatically booted up from standby mode and is fully operational again within approx. 3 seconds.

The power symbol on the front panel lights up red in standby mode. If the Power-symbol lights up white, the unit is ready for operation.

DIP switch 2 **GAIN +12dB**: Move the switch to the ON position to boost the pre-amplification of the line inputs LINE IN 1 and 2 by 12 dB. Before switching to + 12 dB, make sure that both level controls 1 and 2 on the front of the unit are set to minimum (left stop).

7 STANDBY

Standby mode can be activated manually using an external button (momentary switch).

Press the button to activate standby mode and mute the speaker outputs. Press the button again to end standby mode. The standby function via external button has priority over the automatic standby function (see SETTINGS).

8 VCA

Terminal block connections for the use of external volume controls.

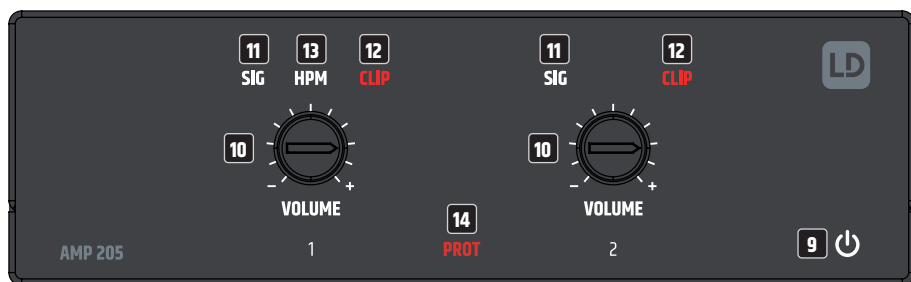
ST and **PAR MODE**: In stereo and parallel mode, one volume control per channel can be used independently (VCA 1 and VCA 2). The maximum volume is set on the VOLUME 1 and 2 volume controls on the front panel.

HPM: In High Power mode, use the VCA 1 connection.

The maximum volume is set on the VOLUME 1 volume control on the front panel.

Once you have set the maximum volume, you can use the external volume control to adjust the volume of the unit from the minimum value to the preset value as desired.

Please observe the correct assignment of the terminal block poles (see TERMINAL BLOCK CONNECTIONS in this manual).



9 POWER SYMBOL

The power symbol lights up white when the installation amplifier is ready for operation. In standby mode, the symbol lights up red.

10 VOLUME 1 / 2

One level control each for channels 1 and 2. Turning to the right increases the volume, turning to the left decreases it.

11 SIG 1 / 2 (SIGNAL)

As soon as an audio signal is present at channel 1 or 2, the corresponding signal indicator lights up white.

12 CLIP 1 / 2

The red CLIP indicator lights up when the corresponding channel is overdriven. In this case, reduce the volume level. Failure to do so may result in distorted sound reproduction and damage to the amplifier and speakers.

13 HPM

As a visual indication that the high power mode is activated, the HPM indicator lights up white (see point 5 MODE).

14 PROT (PROTECT)

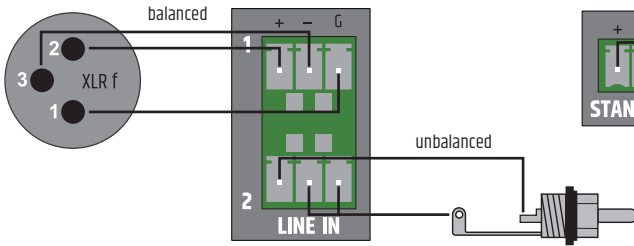
The Protect indicator lights up permanently if the system is overloaded or overheats, in case of a short circuit in the loudspeaker path and in case of a defect. The amplifier is automatically muted. Disconnect the amplifier from the power supply and let it cool down for some time. Eliminate a possible short circuit in the speaker path. Reconnect the amplifier to the power supply. If the Protect indicator still lights up, there is a defect in the amplifier electronics. Contact an authorised service workshop.

AIR VENTS

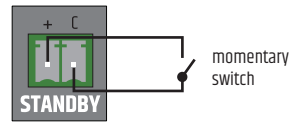
To prevent damage to the device, do not cover the ventilation openings on the left and right sides and on the top and bottom of the device and ensure that air can circulate freely. Covering the ventilation openings on the top or bottom of the housing when mounting it underneath or on top of a table is not critical, since the cooling provided by the the ventilation openings on the remaining sides is sufficient.

TERMINAL BLOCK CONNECTIONS

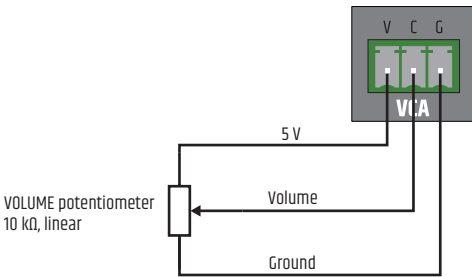
CONNECTIONS LINE IN 1 / 2



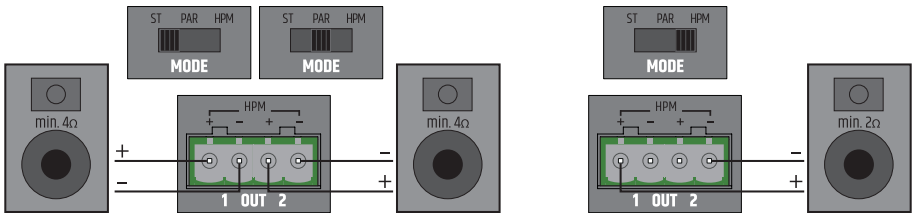
CONNECTIONS STANDBY



CONNECTIONS VCA 1 / 2



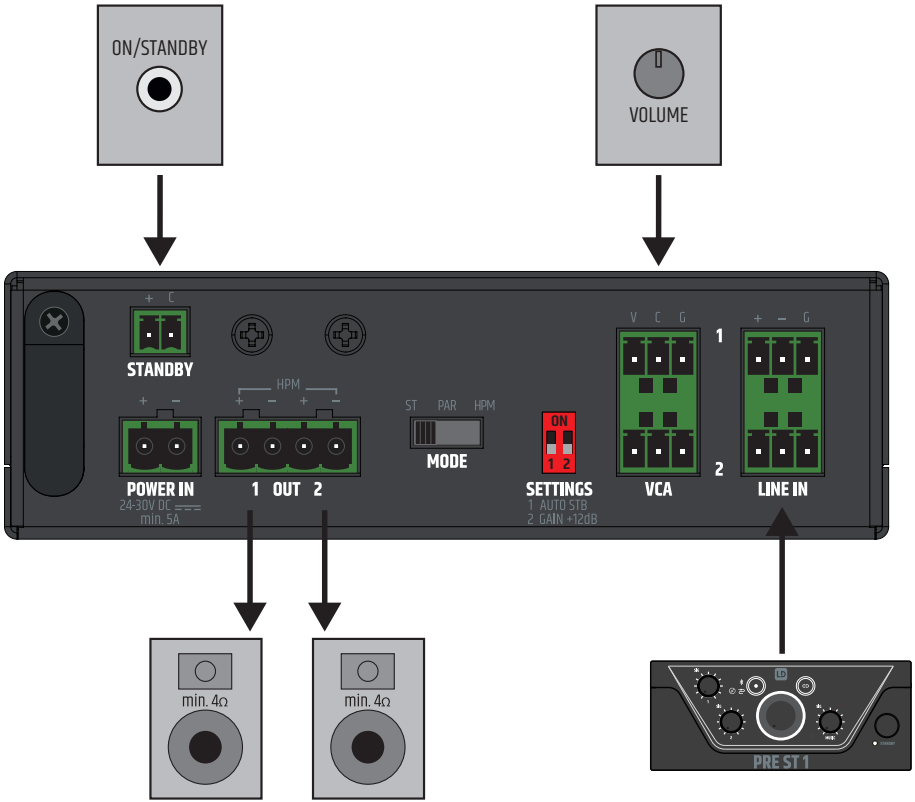
CONNECTIONS OUT 1 / 2 / HPM



BEWARE:

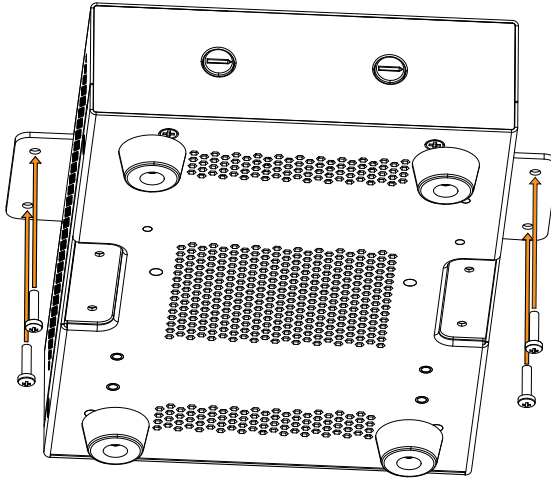
When wiring terminal blocks, please observe the correct assignment of the poles/terminals. The manufacturer accepts no liability for damage caused by faulty wiring!

CONNECTION EXAMPLE



UNDER / ON-TABLE MOUNTING

There are two recesses on the top and bottom of the enclosure, each with two M4 threaded holes, for mounting underneath or on top of the table. Screw the two enclosed mounting plates to the top or bottom side using the enclosed M4 countersunk screws. Now the amplifier can be fixed in the desired position (see illustration, mounting screws not included in delivery). For tabletop mounting, the four rubber feet must be removed beforehand.



CARE, MAINTENANCE AND REPAIR

In order to ensure the long-term, proper functioning of the device, it must be regularly cleaned and, if necessary, maintained. The maintenance requirement depends on the intensity of use and the environment in which it is used.

We generally recommend a visual inspection before each operation. Furthermore, we recommend carrying out all the applicable maintenance measures specified below once every 500 operating hours or, in the case of a lower intensity of use, at the latest after one year. Warranty claims may be limited in the event of defects resulting from inadequate maintenance.

CARE (CARRIED OUT BY USER)



WARNING! Before carrying out any maintenance work, the power supply and, if possible, all device connections must be unplugged.



NOTE! Improper care can lead to impairment of the unit up to and including destruction.

1. Housing surfaces must be cleaned with a clean, damp cloth. Make sure that no moisture can penetrate the device.
2. Air inlets and outlets must be regularly cleaned of dust and dirt. If compressed air is used, make sure that damage to the device is prevented (e.g. fans must be blocked in this case).
3. Lines and plug contacts must be cleaned regularly and dust and dirt must be removed.
4. In general, no cleaning agents or abrasive agents may be used, otherwise the surface finish may be damaged. Especially solvents, such as alcohol, can impair the function of housing seals.
5. Devices must generally be stored dry and protected from dust and dirt.

MAINTENANCE AND REPAIR (BY QUALIFIED PERSONNEL ONLY)



DANGER! There are live components in the unit. Even after disconnecting the mains connection, there may still be residual voltage in the device, for example, due to charged capacitors.



PLEASE NOTE! There are no user-serviceable assemblies in the device.



NOTE! Maintenance and repair work may only be carried out by specialist personnel authorised by the manufacturer. If in doubt, consult the manufacturer.

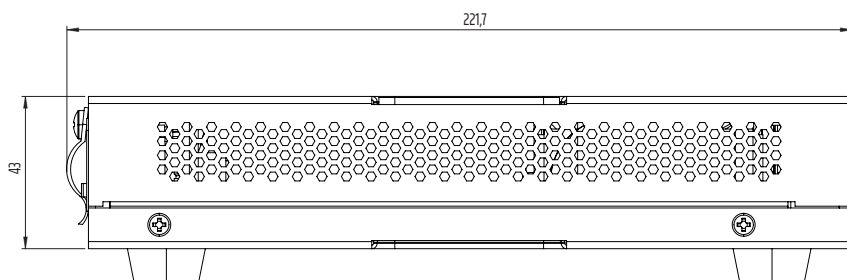
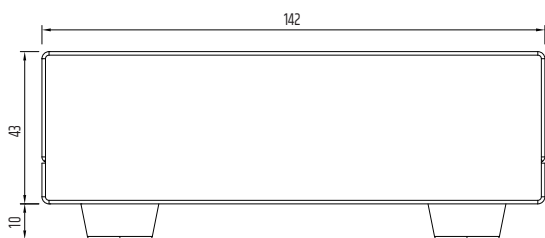


PLEASE NOTE! Improperly performed maintenance work may affect warranty claims.



PLEASE NOTE! For conversion or retrofit sets provided by the manufacturer, it is essential to observe the installation instructions included.

DIMENSIONS



TECHNICAL DATA

Item number	LDAMP205
Product type	Installation power amplifier
Line inputs	2
Line input connectors	Balanced line inputs, pitch 3.81mm terminal block (3-pin)
Line outputs	0
Powered outputs	2 with output mode selector (Stereo / Parallel / High Power Mode)
Cooling system	Convection cooling
Priority levels	1

Input Section

Nominal input sensitivity	14 dBu / 2 dBu (Gain +12dB switch)
Nominal input clipping	18 dBu (Sine 1 kHz, Gain 0dB)
THD+N	< 0.02% (SPK OUT, 4 dBu, 20 kHz BW)
Frequency response	20 Hz – 20 kHz (Low-Z SPK OUT, -0.5 dB)
Input Impedance	12 kohms (balanced)
SNR	> 107 dB (SPK OUT, 14 dBu, Gain max, 20 kHz BW, A-weighted)
CMRR	> 48 dB (SPK OUT, 4 dBu 1 kHz)
Gain	10 dB / 22 dB (Gain +12dB switch)
Connector	2 x 3.81mm Terminal Block 3-pin
Standby wake up time	2.5 seconds
Standby wake up threshold	-30 dBu

3rd Party Control

Main Volume (VCA 1 and 2)	10k (Linear Taper) External Potentiometer, pitch 3.5mm terminal block (3-pin)
Power Standby	External momentary button, pitch 3.5mm terminal block (2-pin)

Amplifier Output

Type	Class D
Output Modes	Stereo, Parallel, High Power Mode (ST / PAR / HPM)
Amplifier Outputs	2- channel (ST, PAR) / 1-Channel (HPM)
Connector	4-pin Terminal block (pitch 5.08mm)
RMS output power	2 x 50 W @ 4 Ohm (ST, PAR) / 1 x 100 W @ 2 Ohm (continuous sine wave 1 kHz 10 sec, 4 Ohm load)
Peak output power	2 x 55 W @ 4 Ohm (ST, PAR) / 1 x 110 W @ 2 Ohm (continuous sine wave 1 kHz 4ms, 4 Ohm load)
Minimum Load Impedance	4 Ohms (Stereo and Parallel Modes) / 2 Ohms (HPM Mode)
Frequency response	15 Hz – 20 kHz (-0,5 dB)
Protection	Over/Undervoltage, Overtemperature, Short-Circuit, DC-Detection

Power Supply

Type	External SMPS
Voltage Range	100 VAC – 240 VAC (+-10%), 50–60 Hz
Mains fuse	None
Secondary Voltage	24 V DC
Secondary Current	3.5 A
Secondary Connector	Terminal Block 5.08mm 2-pole
Primary Connector	IEC Jack
Safety Class	Class 3
Max power consumption	115 W (sine 1 kHz with 2 x 4 Ohm load)
Idle power consumption	3.5 W (no signal input)
Standby power consumption	< 0.5 W
Mains Inrush Current	1.5A @ 230VAC
Operating Temperature	0°C – 40°C; < 85% humidity, non condensing

General

Time to standby	20 min
Material	Steel chassis, Plastic Front panel
Dimensions (W x H x D)	142 (W) x 53 (H) x 221.7 (D)mm (height with rubber feet)
Weight	1.0 kg
Included Accessories	External power supply, Mounting plates for surface mount applications, Terminal blocks for Electrical Connections.

DISPOSAL



Packaging:

1. Packaging can be fed into the reusable material cycle using the usual disposal methods.
2. Please separate the packaging in accordance with the disposal laws and recycling regulations in your country.



Device:

1. This device is subject to the European Directive on Waste Electrical and Electronic Equipment, as amended. WEEE Directive Waste Electrical and Electronic Equipment. Old devices and batteries do not belong in household waste. The old device or batteries must be disposed of via an authorised waste disposal company or a municipal waste disposal facility. Please observe the applicable regulations in your country!
2. Observe all disposal laws applicable in your country.
3. As a private customer, you can obtain information on environmentally-friendly disposal options from the seller of the product or the appropriate regional authorities.

MANUFACTURER'S DECLARATIONS

MANUFACTURER'S WARRANTY & LIMITATION OF LIABILITY

Adam Hall GmbH, Adam-Hall-Str. 1, D-61267 Neu Anspach / E-Mail Info@adamhall.com / +49 (0)6081 / 9419-0.

Our current warranty conditions and limitation of liability can be found at:

https://cdn-shop.adamhall.com/media/pdf/MANUFACTURERS-DECLARATIONS_LD_SYSTEMS.pdf.

In case of service, please contact your sales partner.

UKCA-CONFORMITY

Hereby, Adam Hall Ltd. declares that this product meets the following guidelines (where applicable)

Electrical Equipment (Safety) Regulations 2016

Electromagnetic Compatibility Regulations 2016 (SI 2016/1091)

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulation 2012 (SI 2012/3032)

Radio Equipment Regulations 2017 (SI 2016/2015)

UKCA-DECLARATION OF CONFORMITY

Products that are subject to Electrical Equipment(Safety)Regulation 2016, EMC Regulation 2016 or RoHS Regulation can be requested at info@adamhall.com. Products that are subject to the Radio Equipments Regulations 2017 (SI2017/1206) can be downloaded from

www.adamhall.com/compliance/

CE CONFORMITY

Adam Hall GmbH hereby confirm that this product meets the following guidelines (where applicable):

R&TTE (1999/5/EC) or RED (2014/53/EU) as of June 2017.

Low Voltage Directive (2014/35/EU)

EMC Directive (2014/30/EU)

RoHS (2011/65/EU)

The complete Declaration of Conformity can be found at www.adamhall.com.

Furthermore, you can also request it at info@adamhall.com.

CE DECLARATION OF CONFORMITY

Declarations of conformity for products subject to the LVD, EMC, RoHS Directive can be requested from info@adamhall.com.

Declarations of conformity for products subject to RED Directive can be downloaded from www.adamhall.com/compliance/.

