

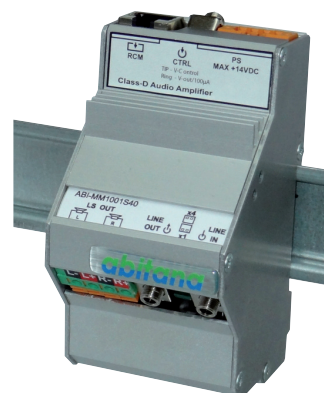
Home Control 2x20W RMS Stereo Amplifier

DIN-rail mountable, Class D

ABI-MM1001S40

abitana

- ✓ HiFi specifications
- ✓ Powerfull class D amplifier
- ✓ Light and compact DIN-housing
- ✓ High efficiency
- ✓ Wide application range
- ✓ Plug and play installation
- ✓ Easy interfacing with any home control system
- ✓ Attractive pricing



Miniature amplifier: explosive energy packed tight for maximum listening pleasure

Weighing in at 150grams....but make no mistake, this is a heavyweight power amplifier. It will deliver true continuous 2x20W RMS power, hour after hour, without even breaking a sweat.

Audio amplifiers from abitana are complete stereo amplifier blocks that combine small size, audio performance, power efficiency, installation convenience and easy interfacing with home automation controls at unmatched pricing.

The ABI-MM1001S40 is a very compact 3-positions wide DIN-rail mounted stereo power amplifier, delivering up to 2x 20W RMS into 4Ohm speaker loads.

The amplifier provides class AB performance with class D efficiency, staying cool at even the highest power. Single-rail 14VDC power is supplied by an equally efficient switchmode power supply or by a car/boat battery.

The gain of the amplifier is externally adjustable in 64 steps, either by a remotely located potentiometer, either by a 0-10V or 1-10V control signal from almost any standard home-automation (dimmer) control. Compatible with 0-10V or 1-10V control systems of KNX, Domintell, Luxom, Velleman, Niko HC, SmartHouse, Control4, Q-Bus, MyHome and many more.

CHARACTERISTICS

Input - Output

- Line level audio input on RJ45 or 3.5mm stereo jack
- Line level audio output on 3,5mm stereo jack
- Speaker outputs on spring-loaded contacts, max 3mm²
- Output power: max 2x22W RMS into 4 Ohm loads

Performance

- Max. Gain of main amplifier: approx 29,5dB
- Gain of preamplifier: switchable x1 (0dB) or x4 (12dB)
- Power supply voltage: 14VDC
- THD+N @ 5W, 1kHz: 0,04%
- Freq range (-3dB): 20Hz to 22kHz
- SNR approx. 90dB
- Crosstalk > 68dB (20Hz to 22kHz)
- Efficiency approx 90%

Power

- Power supply voltage: 14VDC
- Max. current: 3,2A

Warning: Use only approved low-noise power supply type ABI-PS1003S00 or battery

Amplifier

- Switching frequency (spread spectrum) :300kHz+-6kHz
- EMI: EN55022B
- Integrated Click-and-pop suppression
- Low-power shutdown mode
- Short-circuit and thermal-overload protection

Volume control

Without volume control, amplification is set to maximum.

Amplifier gain and output muting is remotely controllable by

- a potentiometer (e.g. in-wall ABI-MM1005Sxx)
- a 0-10V control signal from almost any third party home automation system
- a 1-10V control signal from almost any third part home automation system

Compatible with 0-10V or 1-10V control systems of

- KNX
- Domintell
- Luxom
- Velleman
- Niko Home Control
- SmartHouse (Carlo Gavazzi)
- Control4
- Q-Bus
- MyHome

and many more.

Weight

Net weight: 150g

Specifications are subject to change without notice.

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APPLICATIONS

- Multiroom residential music system
- Standalone in-wall or in-ceiling custom installs
- Turning passive speakers into active speakers
- Powering 'invisible' dry-wall speaker panels
- Embarked music systems powered from car- or boat battery
- HiFi substitute for 100V PA systems in commercial buildings

BLOCK DIAGRAM

Amplifier volume control stage

Each amplifier is equipped with a set of internal circuits that can be used for 3 types of external voltage controls:

- active 0 to 10V home automation control
- passive 1 to 10V (100 μ A) home automation control
- remote 100kOhm potentiometer

Preamp gain selector

The main amplifier stage is preceded by a preamplifier which has two preamplifier gain settings : x1 (0dB) or x4 (+12dB).

The gain is set by means of a piano switch on the front panel of the amplifier.

The x1 setting is chosen when the audio source is a high-output level device like CD player, Tuner, Blu-ray player, Digital Decoder, TV set,... (most of the non-portable mains-powered devices).

The x4 setting is chosen when the audio device is a low-output level device like MP3 player, iPod, mobile phone, tablet, ...(most of the battery-powered portable devices)

