

### AI-101DA Integrated Amplifier with USB DAC





# Defining the Micro Component, Stunning Audio Performance for the next generation

#### ■ Main Features

- USB DAC for High-resolution audio playback from a computer
- Bluetooth® aptX® High-quality Wireless Music Streaming
- 26W + 26W of Output Power with Class-D Amplifier
- "HR Loudness" for Stunning Audio Performance by DSP-based technology
- Auto Power Saving mode simplifies power-on/off sequence when connected to a TV, and STB
- Versatile horizontal or vertical layout
- Free Music Player software for Windows/Macintosh (TEAC HR Audio Player)





Brand	TEAC	
Series	Reference series	
Model	AI-101DA-B	AI-101DA-S
UPC Code	TBA	TBA
EAN Code	TBA	TBA
Announcement Date	October 2014	
Estimated Delivery Date	Late 2014	
Main Unit Dimensions/NW W x H x D	182 x 53 x 191 / 1.2 (mm/kg) 7.2 x 2.1 x 7.5 / 2.6 (inch/lbs)	
Package Dimensions/GW W x H x D	340 x 115 x 243 / 1.9 (mm/kg) 13.4 x 4.5 x 9.6 / 4.2 (inch/lbs)	
Qty. per Master Carton	1 pc.	



The AI-101DA is a bible-sized USB DAC Amplifier designed all-in-one for the next generation, who mainly use a computer and smartphone. The AI-101DA allows users to enjoy both high-resolution audio streaming from a computer, and high-quality wireless audio streaming from a smartphone via Bluetooth® aptX® codec. In addition to a USB audio input and Bluetooth® connection, the AI-101DA also employs a pair of optical digital audio inputs and an analog audio input for traditional audio players like CD player or portable audio player, just in case.

The secrets of the next-gen audio system are not only the versatility of its audio inputs, but the tech under its aluminum skin utilizes the latest DSP-based technology "HR Loudness" to maximize comprehensive sound performance.

The AI-101DA's compact body enables convertible layout, horizontal or vertical to fit with tiny space near TV stand or STB, while TEAC's iconic side guard bars give a professional finish.



## **■** Defining the Micro Component

#### USB DAC for High-resolution Audio Streaming

The main unit employs a USB Audio Input that allows users to connect to a computer and process high-resolution audio of up to 192kHz/24-bit by on-board D/A converter PCM1796 by BurrBrown. The asynchronous connection minimizes jitter noise generated by the computer, while the up-conversion function refines incoming digital audio to make it as smooth as possible, even from CD-based audio tracks.



#### High quality Wireless Audio Streaming by Bluetooth<sup>®</sup> aptX<sup>®</sup> Codec

The main unit supports Bluetooth® wireless audio streaming with an aptX® codec. Users can transmit high-quality audio wirelessly from their smartphone to the AI-101DA.

#### HR Loudness for Massive Sound Performance

As the heart of audio system, the main unit employs a class-D power amplifier that delivers 26W + 26W of output from a bible size cabinet. When the HR Loudness – a DSP-based bass enhancement technology – is active, the amplifier delivers a stunning bass enhancement signal for small speakers. The HR Loudness is effective for analog line-in signal as well, by converting to 96kHz/24-bit digital audio signal that is hi-resolution audio quality.



Of course, no cooling fan is employed for tranquility, so as to avoid background noise interference. A set of biding-post speaker terminals have been used for secure wiring.

#### Total 4 Audio Inputs in a compact aluminum body

Specifically designed for audio streaming from a computer or smartphone, the main unit carries a USB audio input and Bluetooth<sup>®</sup> connection. However, it also carries a pair of optical audio inputs and conventional analog audio input in 1/8" jack. The AI-101DA's bible-sized body made of aluminum enables convertible layout, horizontal or vertical, while TEAC's iconic side guard bars give a professional finish.



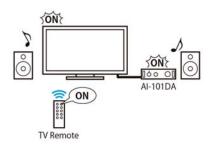


#### Excellent Headphone Performance

As users demands for high quality headphone listening increase, TEAC have responded by including 100mW + 100mW of headphone output in the AI-101DA main unit to enable it to drive a wider range of headphones, including high impedance models.

#### Auto Power Saving – A smart connection with TV, PC, Satellite Receiver, and STB

The AI-101DA provides a simple and smart way of power-on/off sequence when you watch TV. Thanks to its Auto Power Saving function, the AI-101DA automatically turns on when incoming digital audio signal is detected, and vice versa - it automatically turns off when incoming digital audio signal is inactive for 3 minutes -. So, you can connect a TV, PC, Satellite Receiver, and STB such as Apple TV and Sonos CONNECT that equips optical digital audio output to enjoy simplified and smart operations.



The Auto Power Saving function can be engaged or disabled by user preference. However when it is disabled, it still automatically switches to standby mode if left without any operation for 30 minutes.

#### • Free audio software for high-resolution audio playback

TEAC supplies high-resolution audio playback software for both Windows and Macintosh. The software is available to download for free from the TEAC web site, and it allows users to enjoy high-resolution audio without complicated settings that may occur with third-party applications. This is another reason to choose TEAC!

#### ■ Features at-a-glance

- USB DAC for PCM 192kHz/24-bit High-resolution Audio Streaming
- 2 Optical Audio Input supporting PCM 192kHz/24-bit
- Bluetooth® aptX® Wireless Audio Streaming
- 26W + 26W Built-in Class-D Power Amplifier
- BurrBrown PCM1796 D/A Converter
- Up-conversion up to 192kHz
- Asynchronous Transfer Mode
- 100mW + 100mW Headphone Output Power
- DSP-based HR Loudness for maximized audio performance, applicable to all incoming audio signal including Analog Line In

- Aluminum Front Panel and Case
- Machined Aluminum Knobs
- Iconic Side Guard Bars
- Vertical and Horizontal Design
- Auto Power Saving / Auto Power On
- Muting
- Remote Control
- Binding-post Speaker Terminals
- Subwoofer Pre-out for 2.1ch System
- RoHS Compliant



#### ■ Specifications

#### Amplifier section

Max Output Power 26W + 26W (4 ohms, 1kHz, THD 10%, JEITA)
Rated Output Power 20W + 20W (4 ohms, 1kHz, THD 1%, JEITA)

Total Harmonic Distortions 0.01% (1kHz, 8 ohms, 1W)

Silgan-to Noise Ratio (LINE IN) 95dB (IHF-A/LPF 20kHz, 1kHz 2V Input)

Frequency Response 2Hz to 100kHz (-5dB)

**DAC** section

D/A Converter BurrBrown PCM1796

Supported Formats PCM

PCM

Sampling Frequency 32k, 44.1k, 48k, 88.2k, 96k, 128k, 176.4k, 192kHz

Bit-length 16/24-bit
Asynchronous Transfer Mode Supported

Up Conversion / A/D Conversion

#### Up Conversion (On/Off Selectable)

Input Sampling Frequency	Up-converted Sampling Frequency
32kHz	64kHz
44.1kHz	88.2kHz
48kHz	96kHz
64kHz	128kHz
88.2kHz	176.2kHz
96kHz	192kHz
128kHz	128kHz
176.4kHz	176.4kHz
192kHz	192kHz

#### A/D Conversion

Input Signal	Digitized Signal for DSP processing
Analog Line In	96kHz / 24-bit

Supported OS

Windows Vista, Windows 7, Windows 8, Windows 8.1

Macintosh Lion (OS X10.7), Mountain Lion (OS X 10.8), Mavericks (OS X 10.9)

Bluetooth® section

Bluetooth® Version 2.0

Bluetooth® Class 2 (Range: approx. 10m/33ft.)

Supported Profile A2DP, AVRCP Supported Codec apt $X^{\otimes}$ , SBC, AAC

#### Audio Inputs/Outputs

Digital Inputs

USB USB B Type x 1
Optical TOS Link x 2

Input Level -24.0dBm to -14.5dBm peak

Analog Input

LINE IN x 1

Speaker Output

Speaker Terminals Binding-post Supported Impedance 4 to 8 ohms

Subwoofer Pre-out

Subwoofer Pre-out RCA Pin Jack

Headphone Output

Headphone Jack 1/8" (3.5mm) Stereo Mini Jack

Output Power 100mW + 100mW (32 ohms loaded, 1kHz)

Total Harmonic Distortions 0.005%



#### <u>General</u>

Power: AC 120V 60Hz (US/Canada)

AC 240V 50Hz (UK/Europe)

**Power Consumption** 28W (0.5W at Standby)

Overall Dimensions (W x H x D) 182 x 53 x 191 mm / 7.2" x 2.1" x 7.5"

Weight: 1.2 kg / 2.6 lbs. Accessories: Power Cord,

Remote Control (RC-1318),

AAA Batteries x 2 Rubber Feet x 4

Owner's Manual (including Warranty Card)

Required Driver Software Windows Macintosh

TEAC Driver (Free Download from TEAC Website) none (no driver software required)

Optional Software (Free)

Windows Macintosh

TEAC HR Audio Player for Win (Free download from TEAC Website) TEAC HR Audio Player for Mac (Free download from TEAC Website)

#### ■ Rear Panel

