

# Supplemental to New Product Information (SNPI)

## AI-301DA-X

Integrated Stereo Amplifier with USB DAC



**Excellent sound in your living room or on your desktop,  
A compact integrated amplifier with Bluetooth® receiver**

### ■ Features at-a-glance

- A compact design that fits anywhere
- 60W + 60W output power, enough to drive floorstanding speakers
- Built-in Bluetooth® receiver supporting Qualcomm™ aptX®
- USB DAC supports DSD128 and PCM192/32
- Coaxial and optical digital inputs for digital audio sources (ie STBs and TVs)
- BurrBrown PCM1795 32-bit D/A converter
- Tuned in Europe



Brand	TEAC	
Series	Reference 301 series	
Model	AI-301DA-X-B	AI-301DA-X-S
Color	Black	Silver
UPC code	43774033690	43774033706
EAN code	4907034222377	4907034222384
Overall dimensions (W x H x D) NW	215 x 61 x 254 / 8.5" x 2.4 x 10.0" 2.1kg / 4.6 lbs	
Carton dimensions (W x H x D) GW	391 x 150 x 396 / 15.4" x 5.9" x 15.6" 3.0kg / 6.6 lbs	
Quantity per Master Carton	1	

## **Supplemental to New Product Information (SNPI)**

### **■ Product overview**

The AI-301DA-X is a successor to the AI-301DA, offering a newly refined audio performance tuned in Europe.

In order to update the sound quality to meet today's requirement for Hi-Res sound, our engineers have carried out an exhaustive development programme, using selected parts ranges exclusively specified for hi-fi applications.

Supporting DSD128 and PCM192/32 input from PC/Mac, an improved analogue audio circuit delivers excellent sound quality, while a built-in Bluetooth® receiver supports the Qualcomm™ aptX® codec, allowing you to enjoy high quality wireless audio streaming from a PC or tablet.

In addition, the AI-310DA-X's subwoofer pre-out and auto-power on/off functions allow you to create a compact 2.1ch home theater system which can be set to automatically power up when your TV set is turned on.

### **Rich and engaging sound quality, refined in Europe**

#### **● Tuned in Europe**

The previous AI-301DA sounded excellent but our engineers have gone even further with AI-301DA-X, listening, tuning and refining the audio quality over an extended period of time, the final tuning being carried out in Europe. The results of those efforts can be heard in the rich, musical character and considerable dynamic ability of this latest version.

#### **● High performance power amplifier from ICEpower**

The beating heart of the AI-301DA-X is a high performance, energy efficient power amplifier module from ICEpower of Denmark. Thanks to its intelligent energy management technology, the AI-301DA-X can deliver as much as 60W + 60W of output power.

#### **● Robust aluminum body and small footprint**

A sleek and compact body with a small footprint (215mm width, 254mm depth and 61mm height) allows you to place the AI-301DA-X in very small spaces, such as in a tiny gap in a TV stand or on a desktop. A beautifully machined aluminum volume knob and panels give it an innate feeling of elegance, while full-metal body construction achieves excellent vibration suppression, to minimise any adverse effects on sound quality.

#### **● Built-in Bluetooth® receiver for wireless streaming**

The AI-301DA-X features a built-in Bluetooth® receiver module supporting the Qualcomm™ aptX® codec for high quality wireless audio streaming. Qualcomm™ aptX® achieves low-latency and excellent error recovery, resulting in superb sound, qualities which have made this codec an industry-standard for wireless streaming. And, for the benefit of those streaming from an iPhone/iPad, the high-performance AAC codec is also supported.

#### **● Automatically powers up on detecting a digital signal**

The AI-301DA-X automatically turns on when an incoming digital audio signal is detected, and automatically turns off when the signal is switched off. This allows you to, for instance, switch on the

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AI-301DA-X merely by powering up your TV set, ensuring you can enjoy enhanced TV audio with the minimum of fuss.

### ● 32-bit BurrBrown PCM1795 D/A converter

In order to process the huge amounts of digital audio data present in DSD128 and PCM 192kHz/32 content, a high-performance BurrBrown PCM 1795 D/A converter is employed. Its 32-bit processing conveys fine detail and a depth of sound from Hi-Res files that's far beyond what you can hear from standard audio CD.



### ● Supports DSD128 native playback

The AI-301DA-X is equipped with a USB port supporting DSD Native playback. This directly converts DSD signal into an analogue waveform in ASIO2.1 and DoP formats, without changing the PCM format. In addition, asynchronous transfer mode is also supported for accurate data transfer by referencing the more accurate on-board clock of the AI-301DA-X. Furthermore, a free TEAC HR Audio Player allows users to play back, Hi-Res files such as DSD128 and PCM192/32 from Windows/Mac without the need for complicated configuration.



### ● High quality 100mW + 100mW headphone output stage

The AI-301DA-X integrates TEAC's CCLC (Coupling Capacitor-less Circuit) into its onboard headphone amplifier, an innovation that that delivers rich bass sound and quick transient response, by eliminating capacitors in the output stage, while delivering 100mW + 100mW of output power (32ohm load).

### ● Conventional coaxial and optical digital inputs

In addition to a USB audio input, conventional S/PDIF inputs are also provided, the coaxial digital input supporting signals up to 192kHz/24-bit while the optical supports up to 96kHz/24-bit.

### ● Subwoofer pre-out for 2.1 system

A subwoofer pre-out on the AI-301DA-X allows you to connect a powered subwoofer for extra bass sound in a 2.1ch system, especially useful for TV sound enhancement.

## ■ Key Features

- Small footprint (215x254x61mm) for easy desktop placement
- Energy-efficient power amplifier from ICEpower of Denmark
- 60W + 60W max output power
- Supports DSD128 and DSD64 native playback (on USB input)
- Supports PCM192kHz/24-bit playback
- Asynchronous transfer mode
- BurrBrown PCM1795 32-bit D/A Converter
- Built-in Bluetooth® receiver supports the Qualcomm™ aptX® codec
- CCLC headphone amplifier circuit
- Full-metal body
- USB Audio input

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- Coaxial digital audio input
- Optical digital audio input
- RCA analogue audio inputs x2
- Screw-type speaker terminals (AWG8-grade, also compatible with Banana plugs)
- Headphone output (1/4in Stereo phono jack)
- Subwoofer Pre-out (RCA output)
- Motor-driven volume control with machined aluminum knob
- Detachable power cable
- Remote control included
- Auto-power on (when the amp detects an incoming digital audio signal)
- Auto-power saving
- RoHS compliant

### ■ Specifications

#### Supported formats

##### USB Audio input

DSD	DSD128 (5.6MHz), DSD64 (2.8MHz)
PCM	16, 24, 32-bit, 32k, 44.1k, 48k, 88.2k, 96k, 176.4k, 192kHz

##### Coaxial digital input

PCM	16, 24-bit, 32k, 44.1k, 48k, 88.2k, 96k, 176.4k, 192kHz
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##### Optical digital input

PCM	16, 24-bit, 32k, 44.1k, 48k, 88.2k, 96kHz
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#### DAC section

D/A Converter	BurrBrown PCM1795
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#### Bluetooth® section

Bluetooth® Version	V2.1 +EDR
Output	Class 2
Supported codec	Qualcomm® aptX™, AAC, SBC
Supported profile	A2DP, AVRCP

#### Audio Inputs/Outputs

##### USB Audio input

Connector	USB B-type x 1
USB version	USB2.0
Transfer mode	Asynchronous transfer mode
Recommended software	TEAC HR Audio Player (Mac, Windows)

##### Coaxial digital audio input

Connector	RCA Pin x 1
Impedance	75 ohms
Input level	0.5Vp-p

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<b>Analog input</b>	
Connector	RCA Pin x 1 pair
<b>Subwoofer Pre-out</b>	
Connector	RCA Pin x 1
<b>Speaker output</b>	
Max output power	60W + 60W (4 ohms, 20Hz to 20kHz, JEITA) 30W + 30W (8 ohms, 20Hz to 20kHz, JEITA)
Rated output power	43W + 43W (4 ohms, 20Hz to 20kHz, THD 0.1%, JEITA) 22W + 22W (8 ohms, 20Hz to 20kHz, THD 0.1%, JEITA)
Supported speaker impedance	4 to 8 ohms
<b>Headphone output</b>	
Connector	1/4" (6.3mm) Stereo headphone jack x 1
Max output power	100mW + 100mW (32 ohms loaded, THD 0.1%)
Total harmonic distortion	0.005%

**Audio performance**

Frequency response	2Hz to 100kHz (-5dB)
Signal-to-Noise ratio (LINE in)	95dB (IHF-A/LPF 20kHz, 1kHz 2V input)
Total harmonic distortion	0.01% (1kHz, 8 ohms,1W)

**Supported OS**

**Windows:** Windows 10 (April 2018 Update) , Windows 10 (November Update) , Windows 8.1 , Windows 8 , Windows 7 , Windows Vista , Windows XP (32bit ver.)

**Mac :** macOS High Sierra (10.13) , macOS Sierra (10.12) , OS X El Capitan (10.11) , OS X Yosemite (10.10) , OS X Mavericks (10.9) , OS X Mountain Lion (10.8) , OS X Lion (10.7) , Mac OS X Snow Leopard (10.6)

Please check the latest information on the WEB: <https://teac.jp/int/product/ai-301da/spec>

**General**

Operating power	AC 120V, 60Hz (US/Canada) AC 230V, 50Hz (UK/Europe)
Power consumption	38W
Overall dimensions (W x H x D)	8.5" x 2.4" x 10.0" / 215 x 61 x 254mm
Net weight	4.6 lbs. / 2.1kg

**Included items**

- Remote control (RC-1313) x1
- AAA batteries x 2
- AC power cable x1
- Owner's Manual x1

## ■ Rear Panel

