

TEAC®

Reference System

Premium System Components



Reference 503 series
Reference 501 series
Reference 301 series
Reference 101 series
Reference To-Go

Turntable
Speaker systems
Application software

FROM STATE-OF-THE-ART HI-RES AUDIO TO TRADITIONAL ANALOG AUDIO.

Our wide range of premium audio products are compact, and stylish enough to fit into any style.



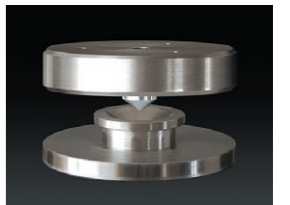
Reference 503 Two flagship models packed with TEAC's highly developed technologies.

In addition to DSD 11.2MHz native playback and PCM 384kHz/32 bit playback, DSD Up-convert allows you to enjoy DSD quality audio with your existing CD library. Each model utilizes discrete dual-monaural technology, on both the D/A converter and analog pre-amp circuitry, which has been developed through decades of experience in the high-end and professional audio industries. Choose between two listening styles: refined, high quality audio directly from your computer's headphone output with the USB DAC headphone amp, UD-503, or versatile, uncompromising audio on a USB network player, the NT-503.

USB DAC/Headphone Amplifier
UD-503



- DSD 11.2MHz, and PCM 384kHz/32-bit Hi-Res Digital Audio Streaming from PC/Mac.
- Max 700mW + 700mW of Headphone Output Power by Full-balanced Discrete Headphone Amplifier Circuit, Enables Balanced BTL Drive mode and Active-ground Drive mode for Excellent Headphone Listening Experience.
- Dual TRS Headphone Jacks Allows You to Drive Your Headphones by either Balanced BTL Drive mode, Active-ground Drive mode, or Parallel-unbalanced Drive mode for Two.
- RCA Analog Unbalanced Input Equipped.
- Three TEAC's Patent-registered Pin-point Feet for Perfect Balance and Easy Installation



USB DAC/Network Player
NT-503



- DSD 11.2MHz, and PCM 384kHz/32-bit Hi-Res Digital Audio Streaming from PC/Mac.
- Versatile Network Functions, DLNA 1.5 and Home Media, supporting Hi-Res Audio Playback.
- High-quality Wireless Audio Playback from Smartphone/Tablet by aptX* Bluetooth*.
- Access to Premium Internet Music Services, Spotify, Deezer, Slacker and tuneln.*1
- 5.6MHz DSD and 192kHz/24-bit PCM Hi-Res Audio Playback from Front USB Port.
- Gap-less Playback on DLNA, Home Media and USB Memory Playback.*2
- Max 500mW + 500mW of Headphone Output Power Supporting Parallel-unbalanced Drive.
- Free Remote Apps Provided for iOS and Android Device.



*1: Not every service is available in every country. Subscription fee may required on some services.
*2: Applicable on the same sampling frequency of WAV, FLAC, AAC ALAC, WMA, OGG and MP3 files.

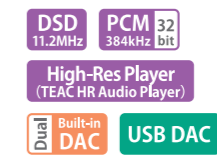
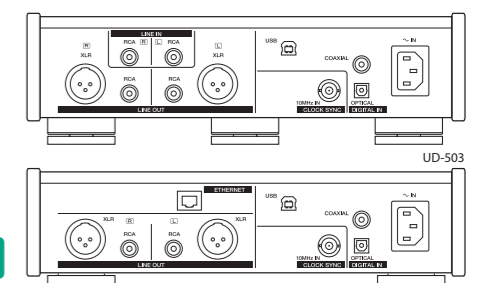
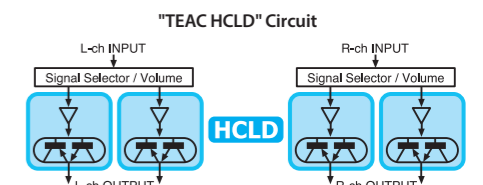


Remote App
TEAC HR Remote (for iOS)
TEAC AVR Remote (for Android)

A smart way of controlling the NT-503 from distant place in your room via Wi-Fi network.

Common Features on the UD-503 and NT-503

- High-end DAC Chip "VERITA AK4490" from Asahi-Kasei Electronics Employed for Each Left and Right Channel.
- Dual High Capacity Toroidal-core Power Transformers for both Left and Right Channel for Isolated Current Supply.
- Isolated Circuit Design Completely Separates the Digital and Analog Sections Electrically.
- Four "TEAC HCLD" Buffer Amplifiers are Employed in the Line Amplifier Section for Enhanced Current Output.
- Up-conversion to up to 12.2MHz DSD / 384kHz PCM, by FPGA (Fluency-function Programmable IC Architecture).
- Two types of DSD Filters and Four types of PCM Digital Filters.
- 10MHz External Clock Input Supported.
- Dual High-precision Internal Clocks for 44.1kHz System and 48kHz System.
- XLR Balanced Analog Output, and RCA Unbalanced Analog Output.
- Switchable Polarity on XLR Output Jack. (2=HOT, 3=HOT)
- "TEAC QVCC" High-precision Volume Control Circuit for 256 Steps in 0.5dB Step.
- USB Audio, Coaxial Digital, and Optical Digital Inputs on Back Panel.
- Convenient Front Digital Input Jack for Coaxial/Optical. (Convertible)
- Low Power Consumption, and Auto Power Saving.
- Full Metal Body for Vibration Elimination and Elegant Style, with A4-sized Foot-print.
- Free Application Software for Mac/Windows, Provided for High-Res Audio Playback



Index

Stereo Amplifier	CD Player
AX-501 Integrated Stereo Amplifier 4	PD-501HR Hi-Res CD Player..... 5
	PD-301 CD Player/FM Tuner 8
Stereo Amplifier with USB DAC	Analog Turntable
AI-501DA Integrated Stereo Amplifier with USB DAC 5	TN-300 USB Turntable 7
AI-301DA Integrated Stereo Amplifier with USB DAC 8	
HR-S101 Micro Component System..... 10	Tuner
	PD-301 CD Player/FM Tuner 8
USB DAC	Speaker
UD-503 USB DAC/Headphone Amplifier 3	LS-301 Coaxial 2-way Speaker 8
NT-503 USB DAC/Network Player 3	S-300NEO Coaxial 2-way Speaker 4, 5
UD-501 USB DAC 4, 6	
UD-301 USB DAC 9	Hi-Res Playback Applications
	TEAC HR Audio Player (for Mac/Windows) 9
Network Player	TEAC HR Audio Player (for iOS/Windows) 12, 13
NT-503 USB DAC/Network Player 3	
Headphone Amplifier	Remote App
UD-503 USB DAC/Headphone Amplifier 3	TEAC HR Remote (for iOS)..... 3
HA-501 Full-analog Headphone Amplifier 6	TEAC AVR Remote (for Android)..... 3
HA-P90SD Portable Headphone Amplifier/Player..... 12	
HA-P50SE Portable Headphone Amplifier with USB DAC 13	
HA-P50 Portable Headphone Amplifier with USB DAC..... 13	

* Not every model is available in every country.

+ Ideal for Air Travel with iPad.



ASIO DSD Direct Stream Digital



DSD Disc Format

Reference 501 The Ultimate Dual-monaural and Full-balance System*

Experience unparalleled sound quality. Modern state-of-the-art digital technology and proven audio know-how will take you to the next level of audio nirvana.



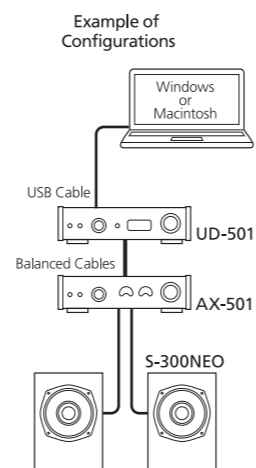
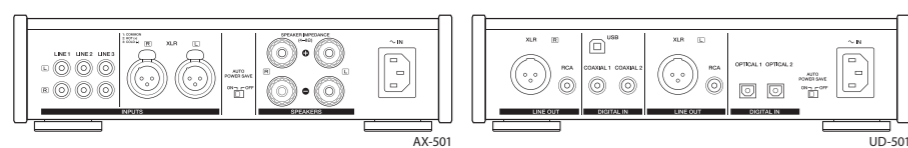
- USB Audio DAC UD-501**
- PCM 384kHz/32-bit, DSD 5.6MHz Hi-Res Digital Audio Streaming via USB Cable.
 - Dual-monaural Circuit Design Eliminates Interference between Left and Right Channels.
 - 4 types of DSD Cut-off Frequency, and 3 types of FIR Filter Options for Fine Tuning.
 - Dual Toroidal-core Power Transformers for both Left and Right Channels.
- DSD 5.6MHz
PCM 384kHz/32-bit
High-Res Player (TEAC HR Audio Player)
Built-in DAC
USB DAC



- Stereo Integrated Amplifier AX-501**
- 120 watts + 120 watts High-performance Class-D Amplifier Engineered by ABLETEC.
 - Full-balance Analog Circuit Design Eliminates Noise and Achieves Better Signal-to-Noise Ratio.
 - Dimmable Needle-type Level Meters Visualize Pulse of the Music.
 - CCLC Headphone Circuit for High-quality Headphone Listening.



- Coaxial 2-way Speaker System S-300NEO**
- Superb Energy Balance over Entire Audible Frequency Range.
 - Air Direct Center Pole System to Drive Massive Sound Power.
 - Rear Bass-reflex Port for Rich Bass Sound.
 - High-quality Luxurious Cabinet with Gloss Finish, available in Red Cherry and Piano Black.



Reference 501 Enjoy Hi-Res Audio without a PC Connection.

Look... Hi-Res audio without a PC! Experiencing the Hi-Res audio world, with a conventional way of audio listening. A pure and rich sense of sound depth is delivered from DSD file on a single disc.



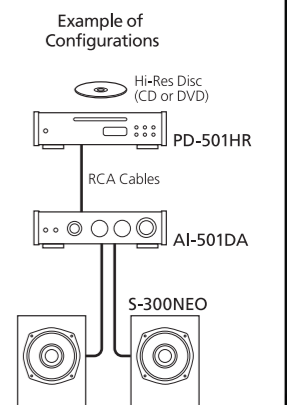
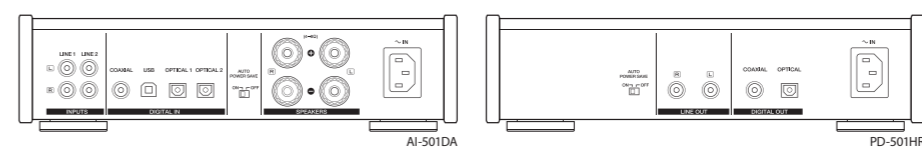
- Hi-Res CD Player PD-501HR**
- DSD 5.6MHz, PCM 192kHz/24-bit Hi-Res Digital Audio Streaming from Disc.
 - VACS Mechanism Eliminates Vibration and Reading Errors.
 - Edge-hold Slot-in Mechanism for Safer Disc Loading.
 - Separated Power Transformers for Digital Section and Analog Section.
- DSD 5.6MHz
PCM 192kHz/24-bit



- Stereo Integrated Amplifier with USB DAC AI-501DA**
- High-performance and High-quality Class-D Amplifier Engineered by ABLETEC.
 - Toroidal-core Power Supply and Schott-key Barrier Diodes for Stable Current Supply.
 - Dimmable Needle-type Level Meters Visualize Pulse of the Music.
 - Digital Audio Inputs including USB Audio Input Allow Direct Digital Connection.
- PCM 24 192kHz/24-bit
High-Res Player (TEAC HR Audio Player)
Built-in DAC
USB DAC



- Coaxial 2-way Speaker System S-300NEO**
- Superb Energy Balance over Entire Audible Frequency Range.
 - Air Direct Center Pole System to Drive Massive Sound Power.
 - Rear Bass-reflex Port for Rich Bass Sound.
 - High-quality Luxurious Cabinet with Gloss Finish, available in Red Cherry and Piano Black.





Reference 501

Driving your headphone

Maximize your headphone's potential by choosing the right damping factor setting.



USB DAC
UD-501

- PCM 384kHz/32-bit, DSD 5.6MHz Hi-Res Digital Audio Streaming via USB Cable.
- Dual-monaural Circuit Design Eliminates Interference between Left and Right Channels.
- 4 types of DSD Cut-off Frequency, and 3 types of FIR Filter Options for Fine Tuning.
- Dual Toroidal-core Power Transformers for both Left and Right Channels.

DSD 5.6MHz | PCM 32 384kHz bit | High-Res Player (TEAC HR Audio Player)

Dual DAC | Built-in DAC | USB DAC



Headphone Amplifier
HA-501

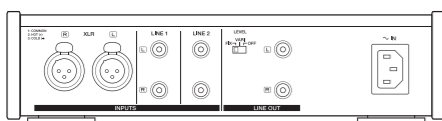
- Maximizing your Headphones Performance by Choosing the Right Damping Factor Settings.
- Class-A Amplifier with 1400mW + 1400mW Output Power Drives even High-end Headphones.
- Full-analog, and Dual-monaural Circuit Design.
- Active DC Servo Technology Eliminates Unwanted Output Signal Caused by Voltage Difference inside the Transistors.
- XLR Balance Audio Input to Connect with High-end Audio or Professional Audio Equipment
- Wide-pitch Line-in RCA Connector Layout Allows to Accommodate Large-shell Pin Plug.

Damping Factor for Optimizing Performance

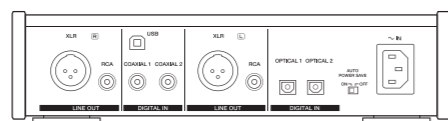
Each pair of headphones has its Damping Factor, a resisting force against non-intentional movement of the diaphragm moving air forwards and backwards as sound. The value of the Damping Factor varies model by model, as diaphragms are made by different materials, in different shapes or different construction designs. Since headphones' diaphragms are activated by a very small current compared to conventional speakers, the damping factor increases, the sound is lean and crisp, and has a close relationship with headphones' impedance.

Position	Headphone Impedance	Damping Factor
HIGH	32 ohms	DF = 76
(MID-HIGH)	64 ohms	DF = 88
MID	120 ohms	DF = 97
(MID-LOW)	300 ohms	DF = 115
LOW	600 ohms	DF = 118

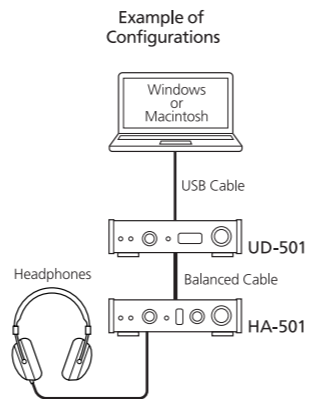
Actual Damping Factor may vary due to impedance of headphone cable and plug.



HA-501



UD-501



Turntable

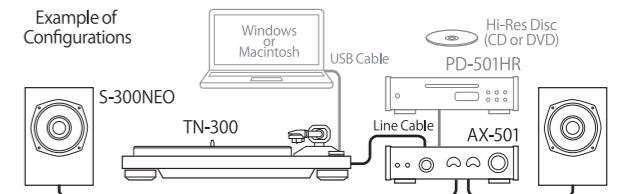
Hold your breath. Drop the needle.

The audio system you always wanted as a kid can be yours with the latest technology. With a Hi-Res CD Player, the conventional combination of amplifier and turntable turns into an advanced hi-fi system. The unchanging pleasure of music has been re-envisioned with the latest modern technology.



Premium Turntable with Phono EQ Amplifier/USB Output
TN-300

- Authentic Belt-drive Turntable with DC Servo Motor.
- Manual Arm Lifter for Analog Playback.
- Static Balanced Straight Type Tone Arm.
- Anti-skating System Prevents Tracking Errors.
- USB Digital Output for Transferring Music from Vinyl to Mac or PC.
- Built-in Phono Equalizer Amplifier for MM Type Cartridge.
- 2-speed Turntable with 33-1/3 and 45 RPM for LP/EP Record Playback.
- Cabinet with Multi-coated Veneer and Beautiful Wood-grain. (TN-300-CH)
- Cabinet with Glossy Piano Finish. (TN-300-B, TN-300-R, TN-300-W)
- MM Type Cartridge Included. (audio-technica AT95E equivalent)
- Corrosion Resistant Gold-plated Terminals.

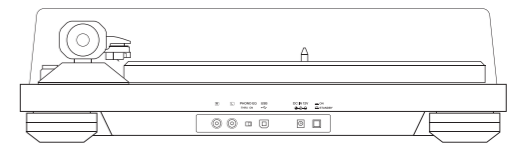


Black

Red

White

Natural Wood





Reference 301

Hi-Res audio and Bluetooth® playback in a single-box.

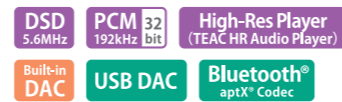
Need to stream Hi-Res digital audio from a computer, wirelessly send digital audio from a smartphone, or even digitally expand your TV sound system to a superior 2.1ch Home Theatre System? The AI-301DA does it all. Enjoy a new approach to audio...



Stereo Integrated Amplifier with USB DAC
AI-301DA



- Hi-Res Digital Audio Streaming from PC/Mac via USB Cable.
- Bluetooth®, aptX® Codec High-quality Wireless Audio Streaming.
- 40W + 40W Class-D Power Amplifier Engineered by ICEpower.
- CCLC Headphone Amplifier for High-quality Headphone Listening.
- Auto Power-on with Incoming Digital Audio Signal.
- Subwoofer Pre-out for Easy Expansion to 2.1ch Home Theatre System.
- Ideal for Upgrading TV Sound from TV, Sonos Connect or Apple TV.



CD Player/FM Tuner
PD-301

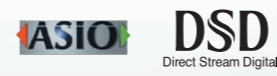
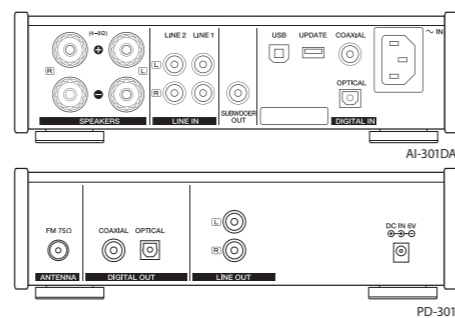
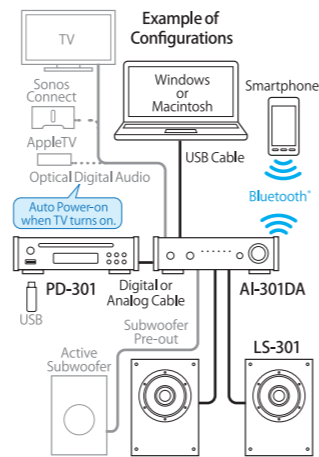
- Quick-loading Slot-in CD Player Supports MP3 and WMA Playback.
- Built-in FM Tuner with 20 Preset Station Memory.
- Front USB Port for WAV, AAC, MP3 and WMA Playback.
- Coaxial and Optical Digital Outputs Deliver CD, FM and USB Sources.



Coaxial 2-way Speaker System
LS-301



- Wide response, up to 40kHz, Ideal for Hi-Res Audio Playback.
- Air Direct Center Pole System to Drive Massive Sound Power.
- Rear Bass-reflex Port for Rich Bass Sound.
- A Perfect Loudspeaker Partner for the Reference 301 series.



Reference 301

Delivering high-performance audio from a desktop component.

Leading-edge technologies contained in a small enclosure bring you a new way of enjoying master-tape quality music from a computer. Used as standalone with headphones, or integrated with your existing hi-fi, the UD-301 upgrades your music experience.



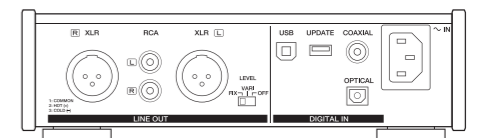
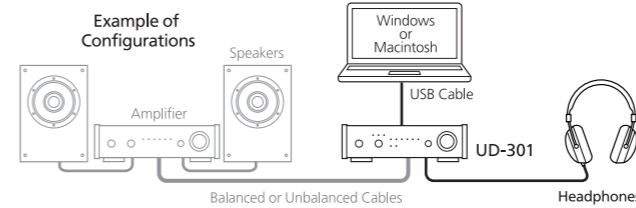
USB Audio DAC
UD-301



- Hi-Res Digital Audio Streaming from PC/Mac via USB Cable.
- Asynchronous Transfer Mode, and 192kHz Up-conversion Option.
- Dual-monaural Circuit Design Eliminates Interference between Left and Right Channels.
- Dual-monaural CCLC Headphone Amplifier Circuit Design for Fine Headphone Listening.
- XLR Balanced Analog Audio Output for Connection with Professional-grade Equipment.
- Toroidal-core Power Transformer for Stable Internal Current Supply.
- Variable Headphone Output Level Suits to Use as a Headphone Amplifier.
- Switchable Output Mode, "Fixed", "Variable" or "Off", for Versatile System Configurations.*



* "Variable" mode lets the UD-301 behave as a Pre-amplifier unit, while "Off" mode cancels to deliver output signals from XLR/RCA terminals on rear panel, when Headphone Jack is used.



TEAC and DSD

DSD
Direct Stream Digital

Since TEAC launched the first DSD Audio Recorder "TASCAM DS-D98" for professional audio market in 2001, we have been focusing potential of the DSD which is a high precision audio format, and has been launching numbers of DSD-capable products. Particularly, a Master Recorder "TASCAM DA-3000" which records/plays back DSD 5.6MHz audio format is used in recording studios world-widely,

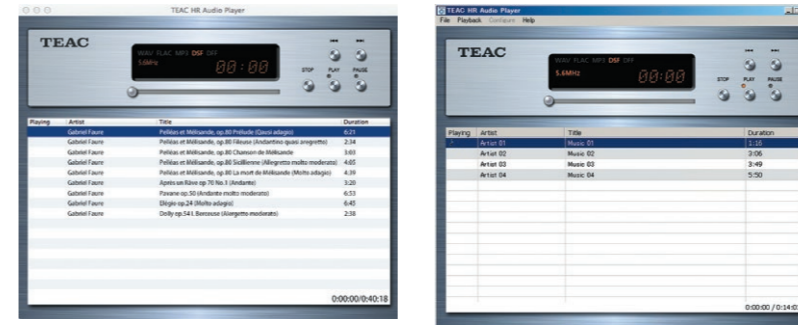
and receiving high reputations from artists and sound engineers. TEAC's DSD-capable products are filled with matured technologies and know-hows from almost 15 years experiences, and even reproduce atmosphere of the recording studios or concert halls where the music was originally played.



TASCAM DS-D98 (launched in 2001)



Providing a Hi-Res Audio Experience for Everyone.



Application Software for Hi-Res Audio Playback

TEAC HR Audio Player

Free to download



The TEAC HR Audio Player is a high-quality music playback application for Windows and Mac, with Hi-Res audio data processing capabilities including DSD 11.2MHz and PCM 384kHz/32-bit.

Used in conjunction with TEAC's USB DAC, the TEAC HR Audio Player allows you to listen to Hi-Res audio without the sort of complication typical of many other music playback applications. Simply select the connected device, and drag-and-drop music files onto the window of the application.

Everything is optimized for Hi-Res audio playback. The simplified screen of the TEAC HR Audio Player reduces the load on the CPU (which processes millions of calculations a second when playing back Hi-Res audio data) while the RAM Buffer Playback mode pre-loads music audio data prior to playback, further reducing the load on the CPU.

It's all about the sound...



- Compatible with Windows and Macintosh computers
Windows: Windows XP*1, Windows Vista, Windows 7, Windows 8, Windows 8.1, Windows 10
Macintosh: OS X Lion (10.7), OS X Mountain Lion (10.8), OS X Mavericks (10.9), OS X Yosemite (10.10), OS X El Capitan (10.11.1)
- Compatible with TEAC UD-503, NT-503, AI-501DA, UD-501, AI-301DA, UD-301, AI-101DA, A-H01, UD-H01, and NP-H750
- Up to DSD 11.2MHz, PCM/FLAC 384kHz/32-bit, and up to 320kbps MP3 Files Playback*2
- ASIO 2.1 and DoP Modes for DSD 5.6M/2.8MHz Playback*2
- DSD File Playback on Mac (DoP mode)*2
- RAM Buffer Playback
- Repeat and Shuffle Playback Modes
- Drag-and-Drop Operation for Creating Playlist
- Save and Load Playlists
- Simplified Screen for reducing CPU load, and enhancing sound quality
- DSD File Playback on Mac (DoP mode)

*1 Windows XP (32-bit) is supported on the UD-501, UD-301 and the AI-301DA.
*2 DSD playback is supported on the UD-503, NT-503, UD-501, UD-301, and the AI-301DA.
PCM 384kHz playback is supported on the UD-503, NT-503, and the UD-501.

Reference 101

Defining the Micro Component for the next generation.

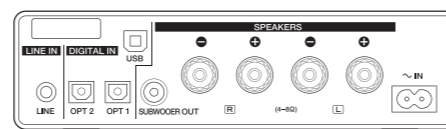
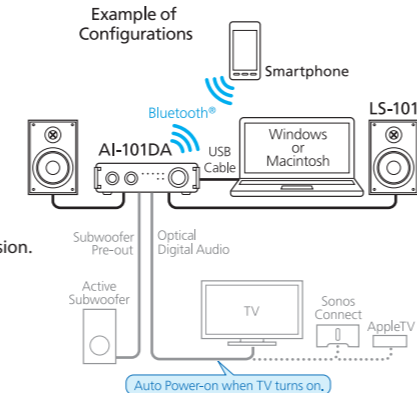
Supporting 192kHz/24-bit Hi-Res audio input, and Wireless Streaming, as well. Stunning Audio Performance for the next generation



Micro Component System
HR-S101
Amplifier: AI-101DA
Speakers: LS-101

- Hi-Res Digital Audio Streaming from PC/Mac via USB Cable, with Up-conversion.
- Bluetooth*, aptX* Codec High-quality Wireless Audio Streaming.
- 26W + 26W Class-D Power Amplifier with Cooling Fan-less Design.
- HR Loudness Circuit for Stunning Sound Performance.
- Vertical or Horizontal Settings. (Amplifier)
- Ultra Compact Bass-reflex Speakers fit Small Desktop Space.
- Auto Power-on with Incoming Digital Audio Signal.
- Subwoofer Pre-out for Easy Expansion to 2.1ch Home Theatre System.
- Ideal for Upgrading TV Sound from TV, Sonos Connect or Apple TV.

* Hi-Res processing is supported on Amplifier section.



What is Hi-Res?

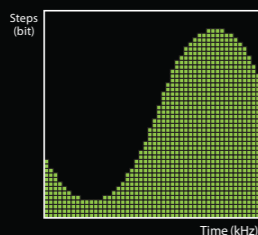


The "Hi-Res" logo defined by CEA and Japan Audio Society.

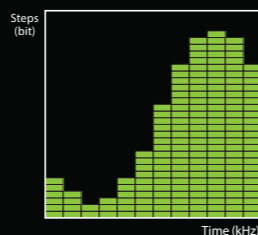
Hi-Res audio is ultra precise digital audio data close to the original analog waveform, by digitizing the sound more frequently and more precisely.

The CEA (Consumer Electronics Association) and the Japan Audio Society define products with capability of processing 96kHz/24-bit on digital audio equipment, or reproducing 40kHz or higher frequency response on analog audio equipment such as amplifier and speakers, and grants to accompany the "Hi-Res" logo with the product.

Hi-Res quality
192kHz/24-bit



CD quality
44.1kHz/16-bit

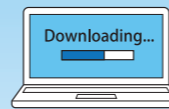


With the PCM (Pulse Code Modulation) format which is a major method of digitizing analog audio signal, sequential analog sound is sampled a million times in few seconds, and each sample is quantized to more than 16 million steps.

Therefore, as number of samples and steps increase, the digital sound becomes closer to the original analog sound.

Let's get started Hi-Res Audio with your computer, as easy as ABC.

- 1 Download the App.
- 2 Drag-and-Drop Music Files.
- 3 Start Playback.



Download the "TEAC HR Audio Player" from TEAC Website. (Free Download)

- Supported OS:
- Windows XP (32-bit)*
 - Windows Vista
 - Windows 7
 - Windows 8, 8.1
 - Windows 10
 - OS X Lion (10.7)
 - OS X Mountain Lion (10.8)
 - OS X Mavericks (10.9)
 - OS X Yosemite (10.10)
 - OS X El Capitan (10.11.1)

* Windows XP supports UD-501, UD-301 and the AI-301DA.

2 Drag-and-Drop Music Files.

Once the "TEAC HR Audio Player" has been started, just drag-and-drop music files onto the lower part of the main window, after choosing the connected device from the Configure menu.

You'll then have a list of playable music files, your "Playlist"



Press "PLAY" to start playback.

REPEAT and SHUFFLE play are also supported.

For even better quality playback, just choose the "Expand to RAM" option from the Configure menu.



Made for iPod iPhone iPad

DSD Direct Stream Digital
BLACKFIN PROCESSOR
Analog Devices



Made for iPod iPhone iPad

REFERENCE TO-GO

To the summit.

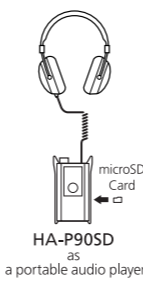
Portable amplifier/player with Hi-Res audio playback – including DSD



✈ Ideal for Air-travel with iPad

- DSD 5.6MHz
- High-Res Player (TEAC HR Audio Player)
- High-Res Player (TEAC HR Audio Player for iOS)
- High-Res Player (TEAC HR Audio Player for Android)
- Built-in DAC
- USB DAC

Examples of Configurations



HA-P90SD as a headphone amp

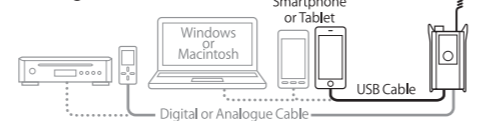
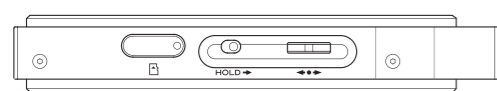


Portable DSD Audio Player/Headphone Amplifier

HA-P90SD



- PCM 192kHz/24-bit and DSD128 (5.6MHz) Native Playback from PC, Tablet, and microSD Card.
- Direct Cable Connection via Lightning or 30-pin Cables. (Apple Camera Connection Kit not required)
- Free Hi-Res Audio Playback Software/Apps for Windows/Mac/iOS/Android Supplied from TEAC.
- USB Audio Input with Asynchronous Mode from Windows and Macintosh.
- Supports up to 128GB microSDXC Card.
- Automatic Multi-format Tag Sorting. (Track name, Album name, Artist name, Playlist, Favorite)
- Repeat, Shuffle, and Gapless Playback from microSD Card.
- Discreet Amplifier with BurrBrown OPA1602 SoundPLUS[®] Audio Op-amp and Push-pull Circuitry.
- 170mW + 170mW of High Power Output at 32-ohms Load.
- BF606 Blackfin[™] Processor by Analog Devices and BurrBrown PCM1795 D/A Converter.
- Dedicated 44.1kHz and 48kHz High-precision Crystal Master Clock Generators.
- 8 Output Level Settings with High/Low Gain Switch and 4-step Attenuator Settings.
- Digital Coaxial Output of DSD64 (2.8MHz) via DoP. (with planned firmware update)
- Slim and Robust All-aluminum Case, and Organic EL-display with Brightness Control.
- Built-in Li-ion Battery for 7-hours Operation with USB Quick-charge and Auto Power-off.



REFERENCE TO-GO

Bringing Hi-Res Audio Out.

Introducing a New Special Edition player, redesigned both inside and out, with the latest technology.



Portable Headphone Amplifier with USB DAC

HA-P50SE

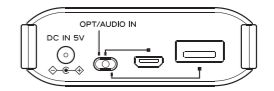
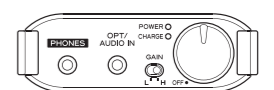
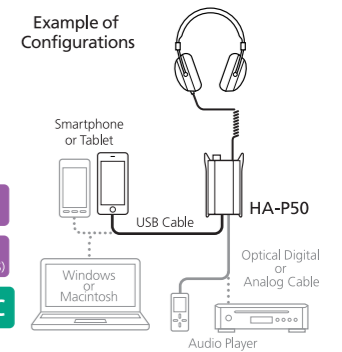


✈ Ideal for Air-travel with iPad



- PCM 24 bit 96kHz
- High-Res Player (TEAC HR Audio Player)
- High-Res Player (TEAC HR Audio Player for iOS)
- Built-in DAC
- USB DAC

Example of Configurations



- Discreet Amplifier with BurrBrown OPA1602 SoundPLUS[®] Audio Op-amp and Push-pull Circuitry.
- 96kHz/24-bit Hi-Res Audio Digital Streaming from iOS Devices and PC/Mac via USB Cable.
- Digital Streaming from Android Devices via USB Cable.
- 160mW + 160mW High-performance Amplifier Circuit.
- Built-in Li-ion Battery with USB Charging.
- 8-hour Battery Life for Long-haul Flight, Ideal for Watching Movies on an iPad.

Wherever you are – land, sea or air – you can enjoy the same Hi-Res sound you get from a Reference Home Hi-Fi System.



Portable Headphone Amplifier with USB DAC

HA-P50

✈ Ideal for Air-travel with iPad



- 96kHz/24-bit Hi-Res Audio Digital Streaming from iOS Devices and PC/Mac via USB Cable.
- Digital Streaming from Android Devices via USB Cable.
- Discreet Push-pull Circuit Design Achieves 0.001% T.H.D.
- 160mW + 160mW High-performance Amplifier Circuit.
- Built-in Li-ion Battery with USB Charging.
- 8-hour Battery Life for Long-haul Flight, Ideal for Watching Movies on an iPad.

REFERENCE TO-GO

From iPhone or Android, Hi-Res Audio is in your hand.



Hi-Res Audio Playback App for iOS/Android Devices

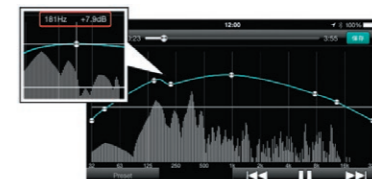
TEAC HR Audio Player for iOS

TEAC HR Audio Player for Android

Free to download

This iOS/Android App turns your iPhone, iPad, iPod touch and Android devices into a Hi-Res Audio Player, and delivers digital audio streaming to the HA-P90SD, the HA-P50SE and the HA-P50. Also supports playing back Music Library on your iPhone, iPad and iPod touch.

- Hi-Res Audio Playback on your iOS and Android Devices.
- Playback tracks on the standard iOS Music Library.
- Up-sampling Features.
- Touch-screen-based Graphic Equalizer with Real-time Analyzer with Save/Load Function.
- Seamless Operation in iOS environment, such as Operation from iOS Control Center.
- Repeat and Shuffle Modes.
- On-line Help and FAQs.
- SNS Integration to share track information with your friends via e-mail, Facebook and Twitter.



A touch-screen based graphic equalizer with Real-Time Analyzer allows you to change equalizing curve by tapping and dragging. An exact frequency and increasing/decreasing value (dB) are shown for accurate equalizing.

Specifications

Product Category	Stereo Speakers			
Model Name	S-300NEO	LS-301	HR-S101 (LS-101)	LS-H70A
Type of Product	Coaxial 2-way Speakers	Coaxial 2-way Speakers	2-way Speakers	2-way Speakers
Specifications				
Type of Speaker	Coaxial 2-way/1-speaker Rear Bass-reflex (Magnetic shielded)	Coaxial 2-way/1-speaker Rear Bass-reflex	2-way/2-speakers Rear Bass-reflex	2-way/2-speakers Rear Bass-reflex
Tweeter	1" (25 mm) Soft Dome	3/4" (20 mm) Soft Dome	3/4" (20 mm) Soft Dome	1" (25 mm) Soft Dome
Woofer	5" (130 mm) Cone	4" (100 mm) Cone	3" (70 mm) Cone	4.7" (120 mm) OMF Cone
Maximum Input Power	100 watts	50 watts	35 watts	70 watts
Rated Input Power	50 watts	20 watts	25 watts	-
Impedance	6 ohms	6 ohms	4 ohms	4 ohms
Frequency Response	55 Hz to 33 kHz	65 Hz to 40 kHz	75 Hz to 25 kHz	55 Hz to 35 kHz
Sensitivity	86 dB/W/m	85 dB/W/m	87 dB/W/m	85 dB/W/m
Overall Dimensions (W x H x D)	7.2" x 9.4" x 9.0" 184 x 240 x 229 mm (*1)	6.3" x 9.1" x 8.1" 161 x 230 x 207 mm (*1)	4.6" x 7.2" x 6.6" 116 x 182 x 167 mm	5.9" x 9.8" x 9.0" 150 x 250 x 229 mm
Weight	9.5 lbs. / 4.3 kg (per piece)	6 lbs. / 2.7 kg (per piece)	3.8 lbs. / 1.7 kg (per piece)	7.1 lbs. / 3.2 kg (per piece)
Included Accessories	Speaker Cables (6.6ft. / 2m) x2, Spike Screws x 6, Washers x 6, Foot Bases x 6, Cleaning Cloth, Owner's Manual (inc. Warranty Card)	Speaker Cables (6ft./1.8m) x2, Cork Sheet Feet x 8, Owner's Manual (inc. Warranty Card)	Speaker Cables (6ft./1.8m) x2, Cork Sheet Feet x 8, Owner's Manual (inc. Warranty Card)	Speaker Cables (6ft./1.8m) x2, Cork Sheet Feet x 8, Owner's Manual (inc. Warranty Card)

Product Category	Turntable				
Model Name	TN-300				
Type of Product	Analog Turntable				
Specifications					
Turntable section		Tone Arm section	Cartridge section (audio-technica AT95E Equivalent installed at the factory.)		
Type of Turntable	Belt Drive	Type of Tone Arm	Static-balanced, Straight	Type of Cartridge	MM type
Motor	DC Motor	Effective Arm Length	8.8" / 223 mm	Frequency Response	20 Hz to 20 kHz
Rotation Speed	33 1/3 rpm, 45 rpm	Needle Pressure Range	0 to 5 grams	Output Level	4.5 mV ±3 dB
Variation of Speed	±2%	Supported Cartridge Weight	3.5 to 8.0 grams	Needle Pressure	1.4 g ±0.4 grams
Wow and Flutter	0.2%	Anti-skating Adjustment	Y	Cartridge Weight	6.5 g ±0.2 grams
Signal-to-Noise Ratio	67 dB or higher (A-weighted, 20 kHz LPF)	Head Shell Weight	10 grams (*2)	Replacement Stylus	audio-technica ATN95E
Analog Output (Phono/Line Switchable)		Digital Output		General	
Connector	RCA Pin (Gold-plated)	Connector	USB Type B (*3)	Power Consumption	1.5 watts (less than 0.5 watts at standby)
Phono Output Level	4.5 mV ±3 dB	Output Audio Format	PCM 48 kHz/16-bit	Dimensions (W x H x D)	16.5" x 4.6" x 14" / 420 x 117 x 356 mm
Line Output Level	230 mV (-13 dBV)	Supported OS	Windows, Macintosh (*4)	Weight	10.8 lbs. / 4.9 kg
Included Accessories	Rubber Mat, EP Record Adapter, Counter Weight, Head Shell, Cartridge (MM type, audio-technica AT95E equivalent), Platter, Dust Cover, Rubber Feet for Dust Cover x 2, Hinges x 2, RCA Audio Cable, AC Adapter (GPE053A-120050-Z), Owner's Manual (inc. Warranty Card)				

*1 Excluding protrusions. *2 Including screws, nuts, and wires. *3 USB BUS power supply is required from PC. (5V 500mA) *4 Visit TEAC web site for the latest information.

Reference for Icons



Supports DSD Digital Streaming.
(Shown with Sampling Frequency)



Supports PCM Digital Streaming.
(Shown with Sampling Frequency and Bit length)



Supports Digital-to-Analog Conversion by Built-in D/A Converter(s).
Dual DAC for Left and Right channels.



Compatible with Hi-Res Playback Applications.
(for Windows, Macintosh, iOS, Android)



Supports Digital Streaming via USB Port.



Supports High-quality Wireless Audio Streaming by Bluetooth[®], aptX[®] Codec.

Please note that not all models and colors are available in every country. Design and specifications subject to change without notice. ©2015 TEAC Corporation. All Rights Reserved. All text, images, graphics and other materials on this brochure are subject to the copyright and other intellectual property rights of TEAC Corporation. These materials shall not directly or indirectly be published, reproduced, modified or distributed in any medium. TEAC and TASCAM are trademarks or registered trademarks of TEAC Corporation. IOS is a trademark or registered trademark of Cisco in the U.S. and other countries and is used under license. Android is a trademark of Google Inc. Windows 8.1, Windows 8, Windows 7, Windows Vista, Windows XP and Windows Media are trademarks of Microsoft Corporation, registered in the United States, and other countries. Macintosh, iPhone, iPad, iPod, iPod touch, Apple TV and Lightning are trademarks of Apple Inc., registered in the U.S. and other countries. "DSD" is a registered trademark. Sonos and Sonos product name are trademarks or registered trademarks of Sonos, Inc. The Bluetooth[®] word mark and the Bluetooth[®] logo are registered trademarks owned by Bluetooth SIG, Inc, and licensed ©2013 CSR plc and its group companies. The aptX[®] mark and the aptX logo are trade marks of CSR plc or one of its group companies and may be registered in one or more jurisdictions. ASIO is a trademark and software of Steinburg Media Technologies GmbH. ICEpower is a registered trademark of ICEpower a/s. "DSD Disc Format" and the "DSD Disc Format" logo are trademarks of Sony Corporation. BurrBrown, and SoundPLUS are trademarks or registered trademarks of Texas Instruments Incorporated. Blackfin[®] and the Blackfin logo are registered trademarks of Analog Devices, Inc. Facebook is a trademark of Facebook, Inc. Twitter is a trademark of Twitter, Inc. audio-technica is a trademark of audio-technica corporation. OMF is a registered trademark of Onkyo Corporation. Cirrus Logic is a trademark of Cirrus Logic Inc. All other brand or product names are trademarks or registered trademarks of their respective holders. "Made for iPod", "Made for iPhone" and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.



WARNING

Listening headphones at a high volume for a long time may cause temporary or permanent hearing loss.

Authorized Dealer

TEAC[®]

TEAC CORPORATION

1-47, Ochiai, Tama-shi, Tokyo 206-8530, Japan

Phone: 042-356-9156 teac.jp

TEAC AMERICA INC.

1834 Gage Road, Montebello, CA 90640, U.S.A.

Phone: 323-726-0303 audio.teac.com

TEAC AUDIO EUROPE

Gutenberg Str. 3, 82178 Puchheim, Germany

Phone: +49-8142-4208-141 www.teac.eu