

# 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 Analog to Hi-Res Audio  
A world of audio that brings timeless emotive sound.



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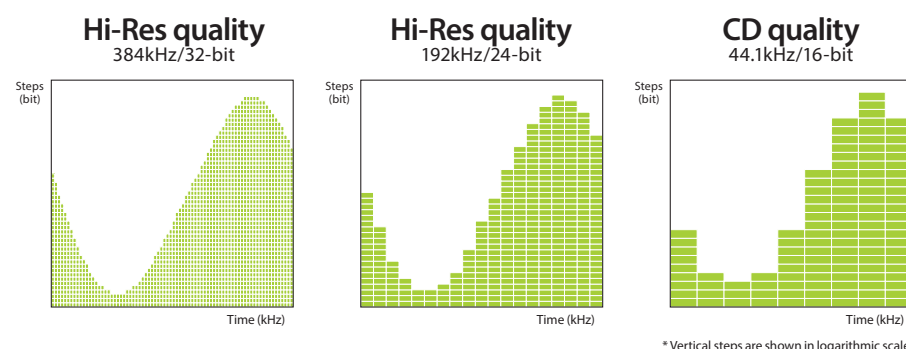
# Once experienced, never go back before.

Hi-Res audio is ultra precise digital audio data close to the original analog waveform, or "Master tape quality" 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 24-bit/96kHz or higher 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.



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



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 4.3 billion steps. Therefore, as number of samples and steps increase, the digital sound becomes closer to the original analog sound. FLAC and WAV are encapsulated formats of PCM. FLAC is a compressed format by maintaining sound quality, while WAV is not compressed.

**DSD**  
Direct Stream Digital

DSD, – or 1-bit audio – is another approach of digitizing analog audio originally developed for SACD format. By sampling the original analog waveform 2.8, 5.6 or even 11.2 million times in a second, as PCM does 0.384 or 0.192 million times,

each sample is formed in 1-bit format which has advantages of simplifying Digital-to-Analog process, and reducing quantize-noise. As a result, the reproduced sound is closer to the original waveform than PCM.

## Getting Hi-Res music

Hi-Res music is available at on-line music stores on the Internet. HD Tracks ([www.hdtracks.com](http://www.hdtracks.com)) for example, most on-line stores provide huge selection of Hi-Res music, from a master piece of classic rock to the latest hit tune on the chart. Each downloaded Hi-Res music file is stored on your computer, which means you've got studio master-tape on it.



\* HD Tracks is available in the US only.

## then, Playback

Downloaded Hi-Res music can be played back on both computer and smartphone/tablet, and delivered to audio system via USB cable, maintaining Hi-Res quality in digital format. TEAC provides easy-to use Hi-Res playback software/app "TEAC HR Audio Player" for each platform, Windows, Macintosh, iOS and Android.



choose your listening style.

any styles and sizes, it's your choice.

## Towards the Pinnacle of Hi-Fi

Supporting the next-generation Hi-Res audio formats – DSD 11.2MHz and PCM 384kHz –, these flagship components with L/R independent dual-monaural and balanced circuit design for purer audio processing pursuit Hi-End components.

**UD-503** ..... page 6

**NT-503** ..... page 7

## Tasting the Quality

Filled with Hi-Res audio technologies learned from decades of Professional Audio development, these premium components parallel to full-size components. Handsome full-metal body is not only for built, but also entertains your mind of owning an authentic hi-fi system, while satisfying your ears with Hi-Res audio.

**UD-501** ..... page 8

**UD-301** ..... page 11

**AI-301DA** ..... page 12

## Enjoy at ease

Stylish micro components with amazingly small footprint provide a totally new aspect of music listening at Hi-Res standard. Employing Bluetooth® connection for wireless audio playback from smartphone and tablets, as keeping your CD library active.\*

**CR-H101** ..... page 13

**AI-101DA** ..... page 13

**HR-S101** ..... page 13

\* Applied for the CR-H101

## On the street, or in the Air

Basking in the Hi-Res world with your favorite headphones wherever you are – on the street, or in the long hawl flight –, TEAC's portable headphone amplifiers provides versatile ways of audio listening with iPhone/iPad, Android phone, or tablets. A stand-alone portable Hi-Res audio player with microSD card reader also available.

**HA-P90SD** ..... page 16

**HA-P5** ..... page 17

**HA-P50SE** ..... page 18

**HA-P50** ..... page 18

## in a Traditional Way

Managing music library disc by disc is still easy and comprehensive way to picking a music to be played, as we do for a century.

**PD-501HR** ..... page 9

## even, Vinyl Records in Hi-Res Quality

Analog audio on vinyl records are also your Hi-Res library. Analog Turntable with an analog-to-digital converter delivers digital audio signal that equivalent to Hi-Res quality to your favorite DAC.

**TN-570** ..... page 14





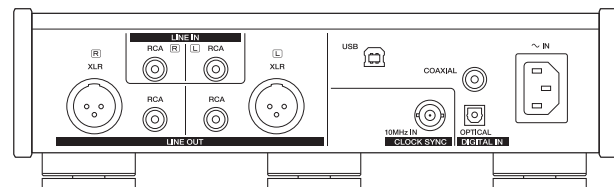
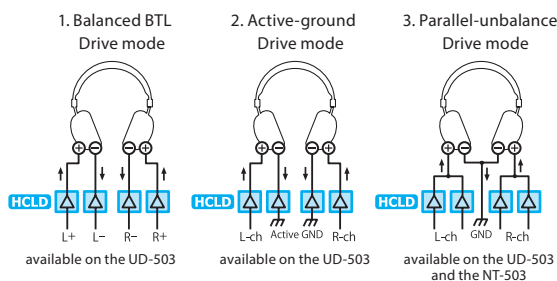
- DSD 11.2MHz, and PCM 320bit/384kHz Hi-Res digital audio streaming from Windows/Mac.
- 700mW + 700mW of output power by full-balanced discrete headphone amplifier circuit
- Balanced BTL Drive and Active-ground Drive modes for excellent headphone listening.
- Dual TRS Headphone Jacks for either Balanced BTL Drive mode, Active-ground Drive mode, or Parallel-unbalanced Drive mode for two.
- RCA analog unbalanced input for versatile system configurations.
- TEAC's patent-registered Pin-point Feet for the perfect balance and easy installation.



### UD-503's Three Drive Modes for Headphones

The UD-503 also behaves as an excellent Headphone Amplifier, with a discrete AB-class amplifier design that expands its A-class operating range. The A-class range – or known as a prime range – is used for most cases of headphone listening. In addition, a quad "TEAC-HCLD" circuits that employ Enhanced Current Buffer Amplifiers applied not only for line output, but also headphone output, provide Balanced BTL Drive, Active-ground Drive, and Parallel-unbalanced Drive modes.

**Active-ground Drive mode:** By maintaining both COLDs (GND) to stable 0V individually, based on the elements of Balanced connection, the Active-ground Drive mode achieves enhanced silence by suppressing hum from the power supply.



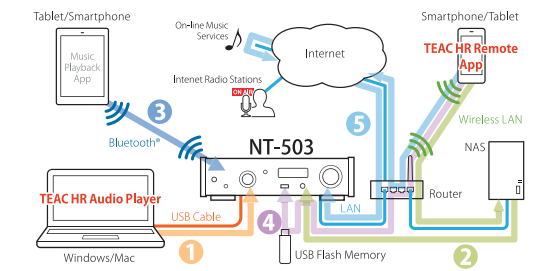
### NT-503's Versatile Network Capabilities

- DSD 11.2MHz, and PCM 384kHz/32-bit Hi-Res digital audio streaming from Windows/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 such as *tunein*. \*1
- Gap-less playback on DLNA, Home Media and USB flash memory playback.\*2
- 500mW + 500mW of headphone output power supporting Parallel-unbalanced Drive.
- Free Remote Apps provided for iOS and Android devices.

Remote App  
**TEAC HR Remote**  
(for iOS/Android)  
A smart way of controlling the NT-503 from distant place in your room wirelessly via Wi-Fi. Available for iOS and Android. (Free download from AppStore/Google Play)

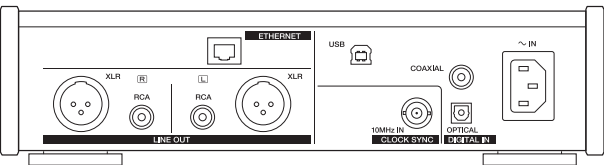
### NT-503's Versatile Network Capabilities

- 1 Hi-Res playback from PC/Mac via a single USB cable (max. DSD 11.2MHz, PCM 384kHz)
- 2 Hi-Res playback from music server via LAN cable (max. DSD 5.6MHz, PCM 192kHz)
- 3 High-quality wireless audio playback from smartphone (Bluetooth® connection with aptX®, AAC and SBC codec)
- 4 Hi-Res playback from USB flash memory via smartphone (max. DSD 5.6MHz, PCM 192kHz)
- 5 Access to premium Internet music services (Internet Radio access available from iOS device only)



To playback from USB Flash Memory, a smartphone or tablet installing TEAC HR Remote (for iOS) or TEAC AVR Remote (for Android) is required to connect to the same Wi-Fi network of the NT-503.

\*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.

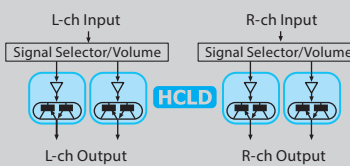


### Common Features on the UD-503 and NT-503

#### Brushed-up Basics as Authentic Hi-Fi Products

- Dual-monaural Design throughout Power Units, D/A sections, and Analog Circuits.
- Dual Over-sized Toroidal-core Power Transformers for Independent Current Supply for both L and R Channels.
- Isolated Circuit Design for Digital and Analog sections.
- Quad "TEAC HCLD" Buffer Amplifiers in Line Amp Section for Enhanced Current Output.
- "TEAC QVCC" High-precision Volume Control Circuit for 256 Steps in 0.5dB Step.
- Full Metal Body for Vibration Elimination and Elegant Style, with A4-sized Foot-print.

#### Quad TEAC-HCLD (High Current Line Driver) Circuits



The "TEAC-HCLD" employs dual buffer amplifier circuits for each channel, providing differential processing on balanced output mode, and parallel processing on unbalanced output mode. By enhancing its current output, wider dynamic range maximizes potential of Hi-Res audio source.

#### Digital Audio Technologies from Pro-Audio Development

- Dual High-end DAC Chips "VERITA AK4490" from Asahi-Kasei Electronics for L and R Channels.
- Up-conversion to 12.2MHz DSD / 384kHz PCM, by Fluency-function Programable IC Architecture.
- Two types of DSD Filters and Four types of PCM Digital Filters for Fine Sound Tuning.
- 10MHz External Clock Input Supported.
- Dual High-precision Internal Clocks for 44.1kHz and 48kHz Systems.
- Free Software Provided for High-Res Audio Playback. (Windows, Macintosh)

#### Versatile Inputs/Outputs Connectors

- XLR Balanced Analog Output with Switchable HOT Pin Assignment.
- RCA Unbalanced Analog Output with Wide Pitch for Large-shell Cable.
- 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.



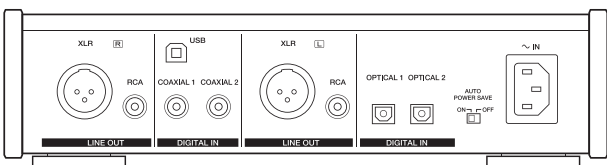


Hi-Res AUDIO USB Audio DAC UD-501



DSD 5.6MHz PCM 384kHz Dual Built-in DAC USB AUDIO

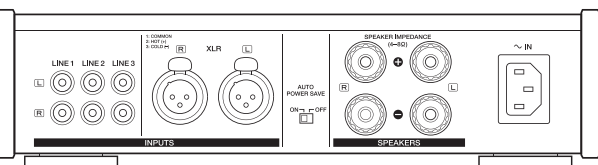
- DSD 5.6MHz, PCM 32-bit/384kHz, Hi-Res digital audio streaming via USB cable
- Throughout Dual-monaural circuit design eliminates interference between channels
- Dual over-sized Toroidal-core power transformers for left and right channels
- 4 types of DSD cut-off frequency settings, and 3 types of FIR Filter options for fine tuning
- Quad MUSES8920 Op-amps design, and dual Burr-Brown PCM 1795 D/A converters
- Non-integral up-conversion to 192kHz, and Asynchronous Transfer mode
- Total 5 digital inputs (USB Audio x 1, Coaxial digital x 2, Optical digital x 2)
- A pair of XLR Balanced analog audio output and RCA Unbalanced analog output
- Auto Power Saving mode, and high-contrast and dimmable organic EL display
- Line Out circuit cancellation for finer processing on headphone listening
- Parallel Buffer circuit design for RCA analog output
- Auto power saving mode
- Free Hi-Res playback softwares for Windows/Mac



Hi-Res AUDIO Stereo Integrated Amplifier AX-501



- 120 + 120 watts high-performance Class-D amplifier engineered by ABLETEC
- Qualified Hi-Res amplifier supporting 10 to 60,000Hz frequency response
- Full-balance analog circuit eliminates noise for better Signal-to-Noise ratio
- Dual analog level meters with dimmer control visualize pulse of the music
- CCLC headphone circuit for high-quality headphone listening
- Over-sized Toroidal-core power transformer and Schottky Barrier diodes
- Cooling fan-less design for silence
- Aluminum-weighted volume control
- Total 4 analog audio inputs (XLR Balanced x 1, RCA Unbalanced x 3)
- AWG8-graded screw-type speaker terminals compatible with Banana plug
- Auto power saving mode
- Remote control

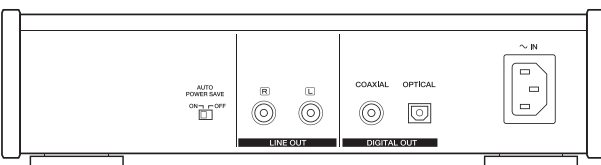


Hi-Res AUDIO Hi-Res CD Player PD-501HR



DSD 5.6MHz PCM 192kHz Built-in DAC

- DSD 5.6MHz, PCM 24-bit/192kHz Hi-Res digital audio playback from disc
- TEAC's unique VACS mechanism eliminates vibration and reading errors
- Edge-hold slot-in mechanism for safer disc loading
- Center-mount CD drive for perfect weight distribution
- Cirrus Logic CS4398 D/A converter with Pure mode DSD/PCM processing
- Hi-Fi-graded Op-amps NJM5532 from JRC
- Individual power transformers for digital and analog sections
- Schottky Barrier diodes for power supply circuits
- 6-layered glass epoxy circuit boards for simplified signal paths
- Various playback modes including 99-track program, repeat and shuffle
- Dimmable organic EL display
- Auto power saving mode
- Remote control



Hi-Res AUDIO Coaxial 2-way Speaker System S-300HR



- Qualified Hi-Res speakers supporting 50 to 50,000Hz frequency response
- Coaxial 2-way unit for brilliant acoustic focus and natural sound image
- New 25mm titanium dome tweeter and 130mm cone woofer
- Superb energy balance over entire audible frequency range
- Air Direct Center Pole System to drive massive sound power
- Carefully designed rear Bass-reflex port for rich bass sound
- Gold-plated screw type speaker terminals allow Bi-wiring connection
- Detachable 3-point sustain pin-point spikes (including base plates)
- Luxurious gloss finish cabinet, available in red cherry and piano black
- Cleaning cloth included

Speaker Stand

TA-STD300

Exclusive design for S-300HR and S-300NEO



- Elevating the coaxial speakers to the ideal height for the perfect position
- Luxurious gloss finish matching the S-300HR and S-300NEO
- Screw holes for third-party insulators and spikes (not included) on the bottom
- Cork sheet cushions for speaker mounting (including mounting screws)
- Rubber sheed cushions for the bottom
- Ready-to-assemble (including screws, and screw driver)





Hi-Res  
AUDIO

Headphone Amplifier  
HA-501

VGP  
2016  
SUMMER

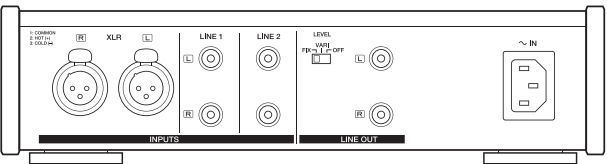
VGP  
2016  
SUMMER

AEx  
audio excellence

金賞  
Gold Prize



- Maximize headphone performance by choosing the right Damping Factor
- Discrete design Class-A amplifier with 1400m + 1400m watts output power
- Full-analog and dual-monaural circuit design for excellent headphone listening
- Active DC Servo Technology eliminates unwanted output signal caused by voltage difference inside the transistors
- Over-sized Toroidal-core power transformer to supply stable current
- Dual MUSES8920 Op-amp for left and right channel
- ±15V high-voltage operation current for better Signal-to-Noise ratio
- Auto Muting when headphone plug is disconnected
- Switchable output line level (Fixed, Variable, Off)
- XLR Balanced audio input to connect with High-end or Pro-audio equipment
- 2 RCA unbalanced analog audio inputs on rear
- 1 stereo mini input on front panel for easy access
- Wide-pitch 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. You'll experience potential of your headphones by choosing the right Damping Factor, or even enjoy different aspects of your headphones by off-setting the right Damping Factor.

Position	Headphone Impedance	Damping Factor
HIGH	32 ohms	DF = 76
MID-HIGH	64 ohms	DF = 98
MID	120 ohms	DF = 97
MID-LOW	300 ohms	DF = 115
LOW	600 ohms	DF = 118

Comprehensive Damping Factor of headphones is calculated by total impedance of the entire headphones unit including diaphragm, cable, internal leads and plug.

Hi-Res  
AUDIO

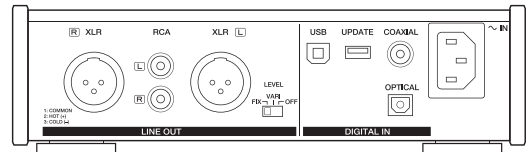
USB Audio DAC  
UD-301

VGP  
2016  
SUMMER

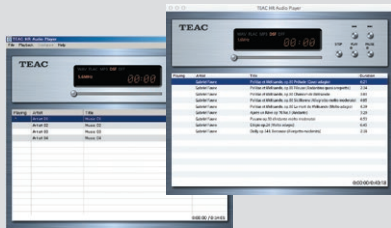
AEx  
audio excellence



- DSD 5.6MHz, PCM 32-bit/192kHz, Hi-res digital audio streaming via USB cable
- Dual Burr-Brown PCM1795 D/A converters for Left and Right channels
- Asynchronous Transfer Mode, and Up-conversion option to 192kHz
- Dual-monaural circuit design eliminates interference between both channels
- Dual-monaural CCLC headphone amplifier for fine headphone listening
- Dual Hi-Fi-grade Op-amps MUSES8920 for Left and Right channels
- Toroidal-core power transformer for stable internal current supply
- Variable headphone output level suits to use as a headphone amplifier
- 3 Digital Inputs (USB Audio, Coaxial digital, Optical digital)
- XLR Balanced analog audio output for connection with Pro-audio
- RCA Unbalanced analog audio output
- Switchable output level for versatile system configurations (Fixed, Variable, Off)
- 1/4" Stereo headphone jack
- Full metal body with machined aluminum volume knob
- Auto power saving mode
- Small footprint ideal for desktop or side-by-side layout with laptop computer



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 5.6MHz and PCM 32bit/384kHz.

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 automatically optimized for Hi-Res audio playback. The simplified user-interface 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...

Supported models

- UD-503
- NT-503
- UD-301
- AI-301DA
- AI-101DA
- CR-H101
- HA-P90SD
- HA-P5
- HA-P50SE
- HA-P50

(Discontinued models)

- UD-501
- UD-H01
- AI-501DA
- A-H01
- NP-H750





Hi-Res AUDIO AI-301DA Stereo Integrated Amplifier with USB DAC



- DSD 5.6MHz, PCM 32-bit/192kHz Hi-Res digital audio streaming via USB cable
- Burr-Brown PCM1795 D/A converter and Asynchronous Transfer mode
- Bluetooth\*, aptX\* codec high-quality wireless audio streaming
- 60 + 60 watts 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
- Free Hi-Res audio playback software for Windows/Mac

Hi-Res AUDIO LS-301 Coaxial 2-way Speaker System

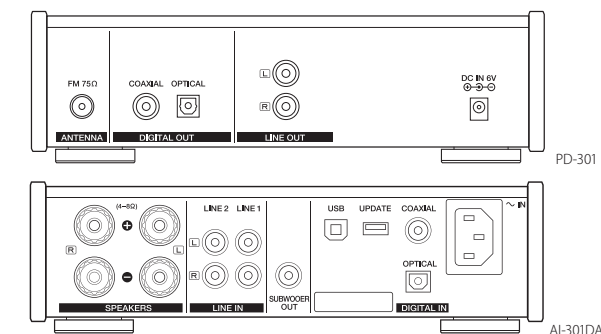


- Wide frequency response up to 40kHz, Ideal for Hi-Res audio listening
- Coaxial 2-way unit, 20mm soft dome tweeter and 100mm cone woofer
- Air Direct Center Pole System to drive massive sound power
- Carefully designed rear Bass-reflex port for rich bass sound
- A perfect loudspeaker partner for the Reference 301 series

CD Player/FM Tuner PD-301



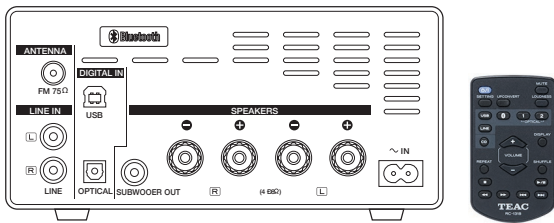
- Quick-loading Slot-in CD drive supporting MP3 and WMA playback
- Burr-Brown PCM5142 D/A converter
- Built-in FM tuner with 20 preset station memory
- Front USB port for WAV, AAC, MP3 and WMA playback from USB Flash Memory
- Displays song title, artist name in the backlite LC-display (ID3 tag info required)
- Various playback modes on CD-DA (Program, Repeat, and Shuffle)
- Automatic playback when disc is loaded
- Coaxial and Optical digital outputs deliver CD, FM and USB sources
- Card-type Remote control



Hi-Res AUDIO CR-H101 CD Receiver



- PCM 24-bit/192kHz Hi-Res digital audio streaming via USB cable
- Burr-Brown PCM1795 D/A converter and dual on-board clocks for 44.1k and 48kHz
- Asynchronous Transfer mode and 2x Up-convert option to 192kHz
- Bluetooth\*, aptX\* codec high-quality wireless audio streaming
- 26 + 26 watts Class-D power amplifier
- DSP-based HR Loudness processing for stunning bass sound
- Slot-in CD drive supporting MP3 and WMA files
- Screw-type speaker terminals
- Subwoofer Pre-out for easy expansion to 2.1ch system
- Free Hi-Res audio playback software for Windows/Mac



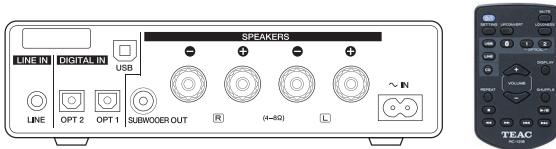
Hi-Res AUDIO LS-101HR Speaker System

- Wide frequency response up to 40kHz
- 20mm PEI balanced dome tweeter
- 70mm cone woofer
- Rear Bass-reflex port for rich bass sound
- Luxurious gloss finish in red cherry
- A perfect partner for the CR-H101

Hi-Res AUDIO AI-101DA Stereo Integrated Amplifier with USB DAC



- PCM 24-bit/192kHz Hi-Res digital audio streaming via USB cable
- Burr-Brown PCM1796 D/A converter
- Asynchronous Transfer mode
- Bluetooth\*, aptX\* codec high-quality wireless audio streaming
- 26 + 26 watts Class-D power amplifier
- DSP-based HR Loudness processing for stunning bass sound
- Screw-type speaker terminals
- Subwoofer Pre-out for easy expansion to 2.1ch system
- Horizontal or vertical layout
- Free Hi-Res audio playback software for Windows/Mac



Hi-Res AUDIO HR-S101 Micro Component System

- AI-101DA for amplifier (see above)
- Free Hi-Res audio playback software for Windows/Mac
- Bundled speakers are:
  - 20mm soft dome tweeter
  - 70mm cone woofer
  - Rear Bass-reflex port
- Combination available in Black x Black and Silver x Cherry





Turntable



Turntable

**Hi-Res AUDIO** Premium Turntable with Phono EQ Amplifier and USB/Optical Digital Outputs  
**TN-570**



- Authentic 2-speed belt-drive turntable with USB/Optical digital outputs
- Dual-material compound by beautiful Marble and high-density MDF
- "PRS3" Platter Rotation Speed Sensing Servo System for precise rotation speed
- Crystal clear acrylic platter with perimeter belt-drive
- Static-balanced straight tone-arm with height adjuster and anti-skating system
- High-precision spindle with anti-static carbon-coated base
- Universal type head-shell with PC-Triple C pure copper wiring
- Built-in A/D converter by Cirrus Logic for digital outputs
- Hi-Res qualified PCM 24-bit/192kHz optical digital output
- 16-bit/48kHz USB digital audio output to Windows/Mac
- Built-in phono equalizer amplifier with OPA1602 SoundPLUS® Op-amps
- MM-type cartridge installed (audio-technica AT95E equivalent)
- Switchable phono/line output for versatile system configurations
- Corrosion resistant gold-plated terminals
- Height adjustable 3-point sustain feet

**What is "PRS3"?**

"PRS3" or Platter Rotation Sensing Servo System is a high precision speed control system that detects insensible changes of the platter rotation speed by a contactless optical sensor settled at the spindle base. And the on-board microcomputer controls DC motor speed after calculation of losses caused by slips and stretches of the belt. It maintains precise speed of the platter where vinyl record rotates, while a conventional servo system of belt-drive unit monitors/controls rotation speed of the motor, not platter.

Premium Turntable with Phono EQ Amplifier  
**TN-550**



- Authentic 2-speed belt-drive turntable
- Dual-material compound by beautiful Marble and high-density MDF
- "PRS3" Platter Rotation Speed Sensing Servo System for precise rotation speed
- Crystal clear acrylic platter with perimeter belt-drive
- Static-balanced straight tone-arm with height adjuster and anti-skating system
- High-precision spindle with anti-static carbon-coated base
- Universal type head-shell with PC-Triple C pure copper wiring
- Built-in phono equalizer amplifier with OPA1602 SoundPLUS® Op-amps
- MM-type cartridge installed for US model (audio-technica AT95E equivalent)
- Switchable phono/line output for versatile system configurations
- Corrosion resistant gold-plated terminals
- Height adjustable 3-point sustain feet

Turntable Sheet

**TA-TS30UN**



Reversible design (white/grey)

- Anti-static WASHI paper for easy dust removal
- Unique watermark pattern of fiber on "Un-Ryu shi"
- Moderate-weighted Stone-paper for anti-warpage
- Reversible design to match atmosphere of the room
- Hand crafted in Japan
- Matches with the TN-570 and TN-550

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



Cherry



Natural wood

- Authentic 2-speed belt-drive turntable with DC servo motor
- Static-balanced straight tone arm with manual arm lifter
- Anti-skating system prevents tracking errors
- Built-in A/D converter for PCM 16-bit/48kHz digital output
- USB digital audio output for transferring music from vinyl to Windows/Mac
- Built-in phono equalizer amplifier for MM-type cartridge
- MM-type cartridge installed (audio-technica AT95E equivalent)
- Switchable phono/line output for versatile system configurations
- Corrosion resistant gold-plated terminals
- Multi-coated veneer and beautiful wood-grain cabinet (TN-300-CH, TN-300-NA)
- Glossy piano finish cabinet (TN-300-B, TN-300-R, TN-300-W)



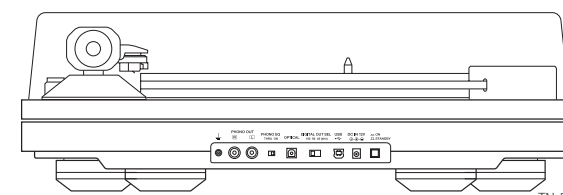
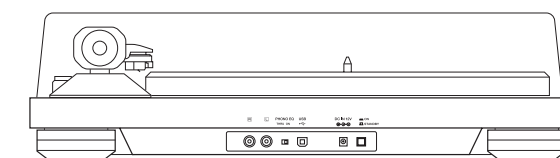
Piano Black



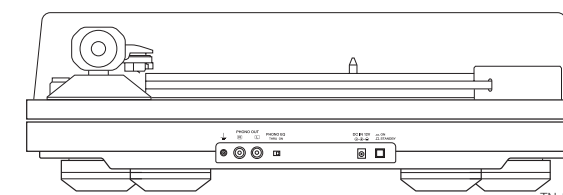
Gloss Red



Gloss White



TN-570



TN-550

Head-shell  
**TA-HS3**



- A spare head-shell for quick replacement to alternative cartridges
- Shell lead installed





Hi-Res AUDIO Portable DSD Audio Player/Headphone Amplifier  
HA-P90SD

2016 SUMMER VGP 2015 VGP 2015 Gold Prize Concept Award

AEEx

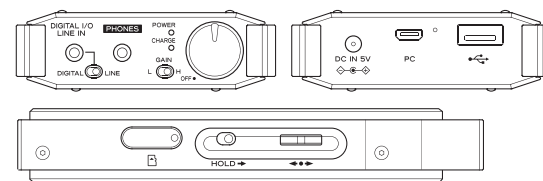
DSD Direct Stream Digital

BLACK FIN PROCESSOR Analog Devices

Made for iPod iPhone iPad



DSD 5.6MHz PCM 192kHz Built-in DAC USB AUDIO

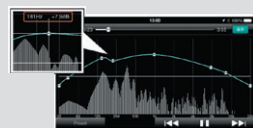
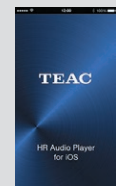


- 8 output level settings with High/Low gain switch and 4-step attenuator settings
- Digital coaxial output of DSD 2.8MHz via DoP format
- Slim and robust all-aluminum case, and organic EL-display with brightness control
- Built-in Li-ion battery for 7-hours operation with USB quick-charge and auto power-off

Hi-Res Audio Playback App for iOS/Android Devices

TEAC HR Audio Player for iOS  
TEAC HR Audio Player for Android

Free to download



Graphic Equalizer with Real-time Analyzer

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.

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.

- Hi-Res audio playback on your iOS and Android devices
- Playback tracks on the standard iOS music library
- Up-sampling function
- 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
- Compatible with HA-P90SD, HA-P5, HA-P50, HA-P50SE



MADE IN JAPAN

Hi-Res AUDIO Portable Headphone Amplifier with USB DAC  
HA-P5

2016 SUMMER VGP 2015 VGP 2015 Gold Prize

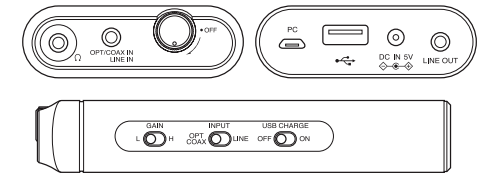
DSD Direct Stream Digital

BLACK FIN PROCESSOR Analog Devices

Made for iPod iPhone iPad



DSD 5.6MHz PCM 192kHz Built-in DAC USB AUDIO



- Ergonomic, compact and light weight design for mobile use
- DSD 5.6MHz and PCM 24-bit/96kHz Hi-Res digital audio streaming from iOS/Android devices and Windows/Mac via USB Cable
- High-performance and low power consumption BF606 Blackfin® processor by Analog Devices
- Burr-Brown PCM1795 D/A converter for precise digital-to-analog conversion
- Dual on-board clocks for 44.1kHz and 48kHz systems
- Ground-separate drive mode by individual Left and Right grounds
- 160m + 160m watts high-performance power amplifier circuit
- High/Low gain selector
- Combination coaxial digital/optical digital/analog inputs for portable player, supporting PCM 24-bit/192kHz digital audio input
- Analog line output for powered speakers or the existing Hi-Fi system
- High-quality chip film capacitors designed for Hi-Fi equipment
- AB-class operating amplifier circuit for better Signal-to-Noise ratio
- Separated layout for digital and analog sections
- USB and microUSB ports for digital input at Asynchronous transfer mode
- Connection with iOS devices requires a Lightning-USB cable only
- Connection with Android devices requires a USB cable and USB Host cable
- High-quality print circuit board with smooth thru-holes for better soldering
- High-quality soldering reduces electrical losses at soldering points
- Sampling-rate indicators and battery level indicator with low battery alert
- Built-in Li-ion battery with convenient USB charging
- 5-hour battery life
- Made in Japan
- Free Hi-Res playback apps for iOS and Android



Hand-crafted accessories to enjoy life with the HA-P5  
Available in selected countries.



Walnut Valet Tray by KOMA  
TA-KM50

This beautiful valet tray made of solid walnut is ideal for your desk to organize your stuff including the HA-P5. Hand-carved by matured furniture craftsmen in Japan.



Leather Wraps by Van Nuys  
TA-LW50

These colorful sleeve cases made of genuine leather is must-have items for mobile. Soft and durable leather gives better grasp, as brilliant color stands out in your bag.



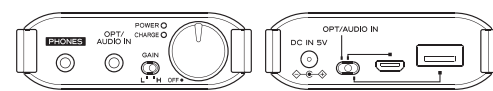
# Reference To-Go



## Hi-Res AUDIO Portable Headphone Amplifier with USB DAC HA-P50SE



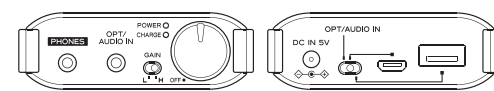
- Discreet amplifier design with Burr-Brown OPA1602 SoundPLUS® audio Op-amp and Push-pull circuitry
- 24-bit/96kHz Hi-Res digital audio streaming from iOS/Android devices and Windows/Mac via USB Cable
- Burr-Brown PCM5102 D/A converter
- 160m + 160m watts high-performance power amplifier circuit
- High/Low gain selector
- Combination optical digital/analog inputs for portable player
- Built-in Li-ion battery with convenient USB charging
- 8-hour battery life for long-haul flight, ideal for watching movies on iPad
- Free Hi-Res playback apps for iOS and Android



## Hi-Res AUDIO Portable Headphone Amplifier with USB DAC HA-P50



- Discreet amplifier design with OP1652 Op-amp and Push-pull circuitry
- 24-bit/96kHz Hi-Res digital audio streaming from iOS/Android devices and Windows/Mac via USB Cable
- Burr-Brown PCM5102 D/A converter
- 160m + 160m watts high-performance power amplifier circuit
- High/Low gain selector
- Combination optical digital/analog inputs for portable player
- Built-in Li-ion battery with convenient USB charging
- 8-hour battery life for long-haul flight, ideal for watching movies on iPad
- Free Hi-Res playback apps for iOS and Android



## Active Subwoofer SW-P300



- Active subwoofer specially designed for 2.1ch or 2.2ch Hi-Fi system
- Robust high-density MDF cabinet for massive power handling
- Luxurious gloss finish in red cherry, completely matches with the S-300HR
- Extra large 200mm cone woofer
- 91 watts of output power from BTL power amplifier circuit engineered by ICEpower
- Non-step high-cut frequency control for the perfect matching with speakers
- Convertible design for front faced or down faced
- 2 types of input, RCA line (Low level) and speaker signal (High level) for any configurations
- Through-out for speaker signal for an amplifier without line/subwoofer out
- Detachable front grille and aluminum feet
- Auto power on/off with incoming audio signal

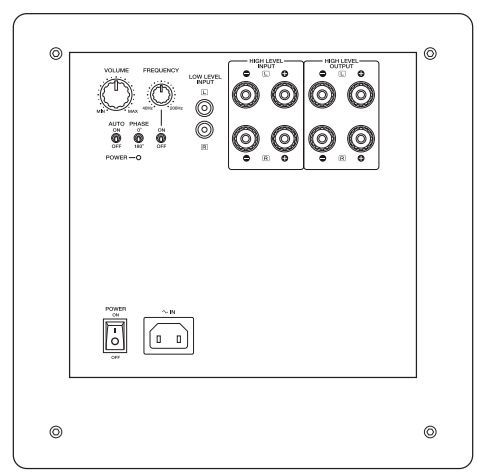


Convertible layout allows two types of setting depends on characters of Left and Right speakers or your preferences.  
Front faced setting for direct bass sound radiation, and down faced setting for omnidirectional bass sound radiation.

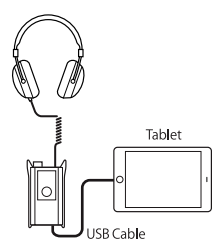
## Coaxial 2-way Speaker System S-300NEO



- Coaxial 2-way unit for brilliant acoustic focus and natural sound image
- 25mm soft dome tweeter and 130mm cone woofer
- Superb energy balance over entire audible frequency range
- Air Direct Center Pole System to drive massive sound power
- Carefully designed rear Bass-reflex port for rich bass sound
- Gold-plated screw type speaker terminals allow Bi-wiring connection
- Detachable 3-point sustain pin-point spikes (including base plates)
- Luxurious gloss finish cabinet, available in red cherry and piano black
- Cleaing cloth included



**Make your air travel exciting**  
A portable headphone amplifier with USB DAC is a perfect partner for iPad or Android tablet in the air. USB digital input allows high-quality audio transfer from your tablet digitally, and high-performance D/A converter and power amplifier section exclusively designed for headphones process high-quality and massive sound which you cannot get with earphone jack on your tablet. In addition, long battery life allows you to enjoy a couple of movies during coast-to-coast flight.





Specifications

Product Category				Network Player		D/A Converter							
Model Name				NT-503		UD-503		UD-501		UD-301			
Type of Product				USB DAC/ Network Player		USB DAC/ Headphone Amplifier		USB DAC		USB DAC			
Key Features													
Source	Inputs		USB Streaming	Y		Y		Y		Y			
			S/PDIF Digital	Y (Coaxial, Optical)		Y (Coaxial, Optical)		Y (Coaxial, Optical)		Y (Coaxial, Optical)			
			Analog	–		Y		–		–			
			USB Flash Memory	Y		–		–		–			
			Bluetooth® Wireless	Y		–		–		–			
	Network		DLNA	Y		–		–		–			
			Home Media	Y		–		–		–			
Supported Audio Formats	Hi-Res Audio		DSD	11.2896 MHz	Y (*1, 2)		Y (*1, 2)		–		–		
				5.6448 MHz	Y (*3, 4)		Y (*1)		Y (*1)		Y (*1)		
				2.8224 MHz	Y (*4, 5, 6)		Y (*1, 6)		Y (*1)		Y (*1)		
			PCM (WAV)	384 kHz	Y (*1)		Y (*1)		Y (*1)		–		
				352.8 kHz	Y (*1)		Y (*1)		Y (*1)		–		
				192 kHz	Y (*7)		Y (*16)		Y (*15)		Y (*15)		
				176.4 kHz	Y (*7)		Y (*16)		Y (*15)		Y (*15)		
				96 kHz	Y (*7)		Y (*16)		Y (*16)		Y (*16)		
			FLAC	192 kHz	Y (*8)		–		Y (*1)		Y (*1)		
				176.4 kHz	Y (*8)		–		Y (*1)		Y (*1)		
	96 kHz	Y (*8)		–		Y (*1)		Y (*1)					
	AAC	96 kHz	Y (*8)		–		–		–				
	ALAC	96 kHz	Y (*8)		–		–		–				
	CD quality	WMA Lossless	96 kHz	Y (*8)		–		–		–			
		WAV (PCM)	88.2 kHz	Y (*9)		–		Y (*16)		Y (*16)			
		FLAC	88.2 kHz	Y (*10)		–		Y (*1)		Y (*1)			
		AAC	88.2 kHz	Y (*9)		–		–		–			
		ALAC	88.2 kHz	Y (*9)		–		–		–			
		WMA Lossless	88.2 kHz	Y (*8)		–		–		–			
		WAV	44.1kHz / 48 kHz	Y (*9)		–		Y (*16)		Y (*16)			
		PCM/LPCM	44.1kHz / 48 kHz	Y (*11)		Y (*16)		Y (*16)		Y (*16)			
		FLAC	44.1kHz / 48 kHz	Y (*10)		–		Y (*1)		Y (*1)			
		AAC	44.1kHz / 48 kHz	Y (*9)		–		–		–			
	Others	ALAC	44.1kHz / 48 kHz	Y (*9)		–		–		–			
		WMA Lossless	44.1kHz / 48 kHz	Y (*8)		–		–		–			
		MP3	MPEG-1/2 Layer-III	Y (*12)		–		Y (*1)		Y (*1)			
WMA		WMA 2, 7, 8, 9, 10	Y (*13)		–		–		–				
OGG Vorbis			Y (*14)		–		–		–				
High-quality Sound		Digital Section		DAC		VERITA AK4490 x 2		VERITA AK4490 x 2		Burr-Brown PCM1795 x 2		Burr-Brown PCM1795 x 2	
	Up-conversion			Y		Y		Y (Switchable)		Y (Switchable)			
	Clock			Dual Internal Clock	Y		Y		–		–		
		External Clock Sync	Y		Y		–		–				
	Analog Section	Dual Monaural Design		Y		Y		Y		–			
		Balanced Circuit Design		Y		Y		–		–			
		TEAC-HCLD Circuit		Y		Y		–		–			
		TEAC-QVCC Circuit		Y		Y		–		–			
	Power	Toroidal-core Power Transformer		Y		Y (Dual)		Y (Dual)		Y			
	Specifications												
Headphone Output	Drive modes		Balanced BTL Drive	–		Y		–		–			
			Active Ground Drive	–		Y		–		–			
			Parallel Unbalanced Drive	Y		Y		–		–			
			Unbalanced Drive	–		–		–		–			
	CCLC (Coupling Capacitor Less Circuit)		–		–		–		–		Y		
Maximum Output Power (at 32 ohms load)		Balanced	–		700 mW + 700 mW (*19)		–		–		–		
		Unbalanced	500 mW + 500 mW		500 mW + 500 mW (*19)		100 mW + 100 mW		100 mW + 100 mW		100 mW + 100 mW		
Connector				1/4" (6.3mm) Stereo Jack		1/4" (6.3mm) Stereo Jack x 2		1/4" (6.3mm) Stereo Jack		1/4" (6.3mm) Stereo Jack			
Audio Inputs/Outputs	Analog Inputs		Line	RCA Pin		–		1		–		–	
			USB Streaming	USB Type A		1		1		–		–	
	Digital Inputs		USB Type B		–		–		1		1		
		S/PDIF	RCA Pin	1		1		2		1			
			TOS-link	1		1		2		1			
				1/8" (3.5mm) Mini	1		1		–		–		
		Analog Outputs	USB Memory	USB Type A		1		–		–		–	
	Line		RCA Pin		1 (*17)		1 (*17)		1		1 (*17)		
	Balanced		XLR 3-32		1 (*17, 18)		1 (*17, 18)		1 (*18)		1 (*17, 20)		
General	Frequency Response (Products with capability of 40kHz or higher frequency response are regarded as "Hi-Res" products.)			5Hz to 80kHz (+1 dB/–3dB)		5Hz to 80kHz (–3dB)		5Hz to 80kHz (–3dB)		5Hz to 55kHz (–3dB)			
	Signal-to-Noise Ratio			110dB (Balanced) 112dB (Unbalanced)		110dB (Balanced) 112dB (Unbalanced)		115dB		105dB			
	Total Harmonic Distortions (JEITA)			0.0015% (1kHz, 20-20kHz)		0.0015% (1kHz, 20-20kHz)		0.0015% (1kHz)		0.0015% (1kHz)			
	Power Consumption (or Battery Life)			18 watts		16 watts		13 watts		10 watts			
	Overall Dimensions (W x H x D)			11.4" x 3.2" x 9.8" 290 x 81.2 x 248.7 mm		11.4" x 3.2" x 9.8" 290 x 81.2 x 248.7 mm		11.4" x 3.2" x 9.6" 290 x 81.2 x 244 mm		8.5" x 2.4" x 9.4" 215 x 61 x 238 mm			
	Weight			8.6 lbs. / 3.9 kg		9.3 lbs. / 4.2 kg		8.8 lbs. / 4.0 kg		4.4 lbs. / 2.0 kg			
	Included Accessories				Power Cord, Remote Control (RC-1320), AAA Batteries x 2, Owner's Manual (inc. Warranty Card)		Power Cord, Remote Control (RC-1319), AAA Batteries x 2, RCA-Mini Cable, Foot Cushions x 3, Owner's Manual (inc. Warranty Card)		Power Cord (w/ Plug Adapter), RCA Audio Cable, Owner's Manual, Warranty Card		Power Cord, Owner's Manual (inc. Warranty Card)		

\*1 Supports playback from TEAC HR Audio Player via USB Input. \*2 Supports dsf and dsdiff formats. \*3 Supports playback from TEAC HR Audio Player via USB Input, USB Flash Memory, and LAN (DLNA, Home Media). \*4 Supports dsf format playback from USB Flash Memory and LAN (DLNA, Home Media). \*5 Supports playback from TEAC HR Audio Player via USB Input, USB Flash Memory, LAN (DLNA, Home Media), and S/PDIF Inputs (Coaxial, Optical). \*6 Supports DoP Input when playback via S/PDIF Inputs (Coaxial, Optical). \*7 Supports WAV playback from USB Flash Memory, and LAN (DLNA, Home Media). Supports PCM playback from TEAC HR Audio Player via USB Input, and S/PDIF Inputs (Coaxial, Optical). \*8 Supports playback from USB Flash Memory, and LAN (DLNA, Home Media). \*9 Supports Sampling Frequency 88.2k/64k/48k/44.1k/32k/24k/22.05k/16k/12k/11.025k/8kHz from USB Flash Memory, and LAN (DLNA, Home Media). \*10 Supports Sampling Frequency 88.2k/64k/48k/44.1k/32k/22.05k/16k/11.025k/8kHz from USB Flash Memory, and LAN (DLNA, Home Media). \*11 Supports PCM (including Sampling Frequency 32kHz) playback from TEAC HR Audio Player via USB Input, and S/PDIF Inputs (Coaxial, Optical). Supports LPCM playback from DLNA. \*12 Supports Sampling Frequency 48k/44.1k/32k/24k/22.05k/16k/12k/11.025k/8kHz from USB Flash Memory, and LAN (DLNA, Home Media). \*13 Supports Sampling Frequency 48k/44.1k/32k/22.05k/16k/11.025k/8kHz from USB Flash Memory, and LAN (DLNA, Home Media). \*14 Supports Sampling Frequency 48k/44.1k/32k/22.05k/16k/11.025k/8kHz from USB Flash Memory, and LAN (DLNA, Home Media). \*15 Supports playback from TEAC HR Audio Player via USB Input, and Coaxial Digital Input. \*16 Supports playback from TEAC HR Audio Player via USB Input, and Coaxial and Optical Digital Inputs. \*17 Variable, Fixed or Cancel Output Level (User selectable). \*18 HOT on Pin 2 or Pin 3 (User selectable). \*19 Balanced BTL Drive mode. (500mW + 500mW when Unbalanced Drive mode.) \*20 HOT on Pin 2.

Specifications

Product Category				Integrated Amplifier		Integrated Amplifier with USB DAC								
Model Name				AX-501		AI-301DA		CR-H101		AI-101DA (HR-S101 Amplifier)				
Type of Product				Integrated Amplifier		Integrated Amplifier with USB DAC		CD Receiver with USB DAC		Integrated Amplifier with USB DAC				
Key Features														
Source	Inputs			USB Streaming		–		Y		Y				
				S/PDIF Digital		–		Y (Coaxial, Optical)		Y (Optical)				
				Analog		Y		–		Y				
				Balanced Analog		Y		–		–				
				Bluetooth® Wireless		–		Y		Y				
	Built-in Devices			Audio CD (CD-DA)		–		–		Y				
Data CD (MP3/WMA)				–		–		Y						
			Tuner		FM		–		Y					
Supported Audio Formats	Hi-Res Audio			5.6448 MHz		–		Y (*1)		–				
				DSD		2.8224 MHz		–		Y (*1)				
				PCM (WAV)			192 kHz		–		Y (*2)		Y (*2)	
							176.4 kHz		–		Y (*2)		Y (*2)	
							96 kHz		–		Y (*3)		Y (*3)	
							192 kHz		–		Y (*1)		Y (*1)	
				FLAC			176.4 kHz		–		Y (*1)		Y (*1)	
							96 kHz		–		Y (*1)		Y (*1)	
	CD Quality			WAV (PCM)		88.2 kHz		–		Y (*3)				
				FLAC		88.2 kHz		–		Y (*1)				
				WAV (PCM)		44.1kHz / 48 kHz		–		Y (*3)				
				FLAC		44.1kHz / 48 kHz		–		Y (*1)				
	Others			MP3		–		Y (*1)		Y (*1)				
				WMA		–		–		–				
High-quality Sound	Digital Section			DAC		–		Burr-Brown PCM1795		Burr-Brown PCM1795				
				Up-conversion		–		–		Y (Switchable)				
				Dual Internal Clock		–		–		Y				
	Circuit Design			Balanced Circuit Design		Y		–		–				
				HR Loudness		–		–		Y				
				Toroidal-core Power Transformer		Y		–		–				
Specifications														
Speaker Output	Type of Amplifier			Class-D Amplifier (ABLETEC ALC0240)		Class-D Amplifier (ICEpower)		Class-D Amplifier (ICEpower)		Class-D Amplifier				
	Maximum Output Power			4 ohms (JEITA)		120 W + 120 W ( 1kHz)		60 W + 60 W (1kHz)		26 W + 26 W (1kHz)				
				8 ohms (JEITA)		70 W + 70 W 1kHz)		30 W + 30 W (1kHz)		–				
	Rated Output Power			4 ohms (JEITA)		100 W + 100 W (1kHz)		43 W + 43 W (1kHz)		20 W + 20 W (1kHz)				
8 ohms (JEITA)				65 W + 65 W (1kHz)		22 W + 22 W (1kHz)		–						
Hi Out	Supported Speaker Impedance			4 to 8 ohms		4 to 8 ohms		4 to 8 ohms		4 to 8 ohms				
	Speaker Terminals			Screw-type		Screw-type		Screw-type		Screw-type				
	CCLC (Coupling Capacitor Less Circuit)			Y		Y		–		–				
	Maximum Output Power (at 32 ohms load)			50 mW + 50 mW		100 mW + 100 mW		100 mW + 100 mW		100 mW + 100 mW				
Audio Inputs/Outputs	Connector			1/4" (6.3mm) Stereo Jack		1/4" (6.3mm) Stereo Jack		1/8" (3.5mm) Stereo Jack		1/8" (3.5mm) Stereo Jack				
	Analog Inputs			Line		RCA Pin		3		2				
				1/8" (3.5mm) Stereo Mini		–		–		1				
	Digital Inputs			Balanced		XLR 3-31		1 (*4)		–				
				USB Audio		USB Type B		–		1		1		
				S/PDIF		RCA Pin		–		–				
				TOS-link		–		1		1		2		
	Analog Output			Subwoofer		RCA Pin		–		1				
General	Frequency Response			10Hz to 60kHz (+1dB/–5dB)		2Hz to 100kHz (–5dB)		20Hz to 45kHz (–5dB)		20Hz to 45kHz (–5dB)				
	(Products with capability of 40kHz or higher frequency response are regarded as "Hi-Res" products.)													
	Signal-to-Noise Ratio			100dB (IHF-A/Input Short)		95dB (IHF-A/LPF, 20kHz)		90dB (IHF-A/LPF, 20kHz)		90dB (IHF-A/LPF, 20kHz)				
	Total Harmonic Distortions (JEITA)			0.005% (8 ohms, 1kHz, 1W)		0.01% (8 ohms, 1kHz, 1W)		0.02% (4 ohms, 1kHz, 1W)		0.02% (4 ohms, 1kHz, 1W)				
	Power Consumption (or Battery Life)			68 watts		38 watts		21 watts		28 watts				
	Overall Dimensions (W x H x D)			11.4" x 3.2" x 10.4" 290 x 81.2 x 264 mm		8.5" x 2.4" x 10.0" 215 x 61 x 254 mm		7.2" x 3.7" x 8.7" 182 x 93 x 221 mm		7.2" x 2.1" x 7.5" 182 x 53 x 191 mm				
Included Accessories				Power Cord (w/ Plug Adapter), Remote Control (RC-1309), AAA Batteries x 2, Owner's Manual, Warranty Card,		Power Cord, Remote Control (RC-1313), AAA Batteries x 2, Owner's Manual (inc. Warranty Card)		Power Cord, Remote Control (RC-1324), AAA Batteries x 2, FM Antenna, Owner's Manual (inc. Warranty Card)		Power Cord, Remote Control (RC-1318), AAA Batteries x 2, Rubber Feet x 4, Owner's Manual (inc. Warranty Card)				



Specifications

Product Category				CD Player	
Model Name				PD-501HR	PD-301
Type of Product				Hi-Res CD Player	CD Player/FM Tuner
Key Features					
Source	Built-in Disc Drive		Audio CD (CD-DA)	Y	Y
			Data CD (MP3/WMA)	Y	Y
			Data DVD (WAV)	Y	–
			Data DVD (DSD)	Y	–
	Built-in Devices		USB Memory Tuner	–	Y
			–	FM	
Supported Audio Formats	Hi-Res Audio	DSD	5.6448 MHz	Y (*1)	–
			2.8224 MHz	Y (*1)	–
		PCM (WAV)	192 kHz	Y (*1)	–
			176.4 kHz	Y (*1)	–
	96 kHz		Y (*1)	–	
	CD Quality	WAV	88.2 kHz	Y (*1)	Y (*3)
		WAV	44.1kHz / 48 kHz	Y (*1)	Y (*3)
		PCM/LPCM	44.1kHz / 48 kHz	Y (*2)	Y (*4)
		AAC	44.1kHz / 48 kHz	–	Y (*3)
Others	WMA	WMA 2, 7, 8, 9, 10	–	Y (*5)	
	MP3	MPEG-1/2 Layer-III	–	Y (*5)	
Hi-quality	Digital Section	DAC		Cirrus Logic CS4398	Burr-Brown PCM5142
	Power	Dligital/Analog Separate Power Supply		Y	–
		Schottky Barrier Diode	Y	–	
Specifications					
Audio In/Out	Digital Inputs	USB Memory	USB Type A	–	1
	Analog Outputs	Line	RCA Pin	1	1
	Digital Outputs	S/PDIF	RCA Pin	1	1
General			TOS-link	1	1
	Frequency Response (Products with capability of 40kHz or higher frequency response are regarded as "Hi-Res" products.)		20Hz to 80kHz		20Hz to 20kHz (–3dB)
	Signal-to-Noise Ratio		116dB		113dB
	Total Harmonic Distortions (JEITA)		0.0005% (DSD), 0.0004% (PCM)		0.005% (1kHz)
	Power Consumption (or Battery Life)		11 watts		8 watts
	Overall Dimensions (W x H x D)		11.4" x 3.2" x 9.6" / 290 x 81.2 x 244 mm		8.5" x 2.4" x 9.1" / 215 x 61 x 232 mm
Weight		9.3 lbs. / 4.2 kg		4.6 lbs. / 2.1 kg	
Included Accessories				Power Cord (w/ Plug Adapter), Remote Control (RC-1306), AAA Batteries x 2, RCA Audio Cable, Manual, Warranty Card	AC Adapter (GPE152-120125W), RCA Audio Cable, Remote Control (RC-1323), AAA Batteries x 2, Manual (inc. Warranty Card)

\*1 Supports playback from DVD disc. \*2 Supports playback from DVD and CD discs. \*3 Supports playback from USB Flash Memory. \*4 Supports playback 16-bit/44.1kHz CD-DA format only. \*5 Supports playback 48k/44.1kHz from CD, and USB Flash Memory.

Product Category			Turntable				
Model Name			TN-570		TN-550	TN-300	
Type of Product			Analog Turntable with Optical/USB Digital Outputs		Analog Turntable	Analog Turntable with USB Digital Output	
Specifications							
Turntable	Type of Turntable		Perimeter Belt Drive		Perimeter Belt Drive	Belt Drive	
	Motor / Speed Management System		DC Motor / PRS3 (Platter Rotation Sensing Servo System)		DC Motor / PRS3 (Platter Rotation Sensing Servo System)	DC Servo Motor	
	Rotation Speed		33 1/3 rpm, 45 rpm		33 1/3 rpm, 45 rpm	33 1/3 rpm, 45 rpm	
	Variation of Speed		±0.05%		±0.05%	±2%	
	Wow and Flutter		0.1%		0.1%	0.2%	
Platter	Signal-to-Noise Ratio		67dBor higher (A-weighted, 20kHz LPF)		67 dBor higher (A-weighted, 20kHz LPF)	67 dBor higher (A-weighted, 20kHz LPF)	
	Material	Crystal Acrylic		Crystal Acrylic	Aluminum		
	Diameter	300 mm		300 mm	300 mm		
	Weight	3.1 lbs. / 1.4 kg		3.1 lbs. / 1.4 kg	1.3 lbs. / 570g		
Tone-arm	Type of Tone Arm		Static-balanced, S-shaped		Static-balanced, S-shaped	Static-balanced, Straight	
	Effective Arm Length		8.8" / 223 mm		8.8" / 223 mm	8.8" / 223 mm	
	Needle Pressure Range		0 to 5 grams		0 to 5 grams	0 to 5 grams	
	Supported Cartridge Weight		24.5 to 29.5 grams		24.5 to 29.5 grams	3.5 to 8.0 grams	
	Anti-skating Adjustment		Y		Y	Y	
	Height Adjustment		Y		Y	–	
Cartridge	Head Shell Weight		10 grams (*1)		10 grams (*1)	10 grams (*1)	
	Type of Cartridge		MM type		MM type	MM type	
	Frequency Response		20Hz to 20kHz		20Hz to 20kHz	20Hz to 20kHz	
	Output Level		4.5mV ±3dB		4.5mV ±3dB	4.5mV ±3dB	
	Needle Pressure		1.4 g ±0.4 grams		1.4 g ±0.4 grams	1.4 g ±0.4 grams	
	Cartridge Weight		6.5 g ±0.2 grams		6.5 g ±0.2 grams	6.5 g ±0.2 grams	
Audio Outputs	Replacement Stylus		audio-technica ATN95E		audio-technica ATN95E	audio-technica ATN95E	
	Analog Output	Connector	RCA Pin (Gold-plated)		RCA Pin (Gold-plated)	RCA Pin (Gold-plated)	
		Phono Output Level	4.5mV ±3dB		4.5mV ±3dB	4.5mV ±3dB	
		Line Output Level	230 mV (–13dBV)		230 mV (–13dBV)	230 mV (–13dBV)	
	Digital Outputs	Optical	Connector	TOS-link		–	–
		Output Audio Format	PCM 24-bit, 48k / 96k / 192k		–	–	
			Output Level	–21.0 dB to –15.0 dB		–	–
	USB Audio	Connector	USB Type B (*2)		–	USB Type B (*2)	
		Output Audio Format	PCM 16-bit, 48kHz		–	PCM 48 kHz/16-bit	
		Supported OS	Windows, Macintosh (*3)		–	Windows, Macintosh (*3)	
General	Power Consumption		1.5 watts (less than 0.5 watts at standby)		1.5 watts (less than 0.5 watts at standby)	1.5 watts (less than 0.5 watts at standby)	
	Dimensions (W x H x D)		16.9"x5.2"x14" / 430 x 131.5 x 355mm		16.9"x5.2"x14" / 430 x 131.5 x 355mm	16.5"x4.6"x14" / 420 x 117 x 356 mm	
Weight			19.9 lbs. / 9.0 kg		19.9 lbs. / 9.0 kg	10.8 lbs. / 4.9 kg	
Included Accessories			Cartridge (MM type, audio-technica AT100E equivalent), Felt Turntable sheet, Acrylic Platter, Pulley Cover, Flat Belt, EP Record Adapter, Counter Weight, Head-shell, Dust Cover, Hinges x 2, Rubber Feet for Dust Cover x 2, RCA Audio Cable with GND Terminal, AC Adapter (GPE053A-V120050-Z), Owner's Manual (inc. Warranty Card)		Cartridge (MM type, audio-technica AT100E equivalent), Felt Turntable sheet, Acrylic Platter, Pulley Cover, Flat Belt, EP Record Adapter, Counter Weight, Head-shell, Dust Cover, Hinges x 2, Rubber Feet for Dust Cover x 2, RCA Audio Cable with GND Terminal, AC Adapter (GPE053A-V120050-Z), Owner's Manual (inc. Warranty Card)	Cartridge (MM type, audio-technica AT95E equivalent), Rubber Mat, Aluminum Platter, Flat Belt, EP Record Adapter, Counter Weight, Head-shell, Dust Cover, Hinges x 2, Rubber Feet for Dust Cover x 2, RCA Audio Cable, AC Adapter (GPE053A-120050), Owner's Manual (inc. Warranty Card)	

\*1 Including screws, nuts, and wires. \*2 USB BUS power supply is required from PC. (SV 500mW) \*3 Visit TEAC web site for the latest information.

Specifications

Product Category				Headphone Amplifier									
Model Name				HA-501		HA-P90SD		HA-P5		HA-P50/HA-P50SE			
Type of Product				Headphone Amplifier		Portable Headphone Amplifier/Player		Portable Headphone Amplifier		Portable Headphone Amplifier			
Key Features													
Source	Inputs		USB Streaming	–		Y		Y		Y			
			S/PDIF Digital	–		Y (Coaxial, Optical)		Y (Coaxial, Optical)		Y (Optical)			
			Analog	Y		Y		Y		Y			
			Balanced Analog	Y		–		–		–			
Supported Audio Formats	Hi-Res Audio	DSD	5.6448 MHz	–		Y (*1)		Y (*1)		–			
			2.8224 MHz	–		Y (*1)		Y (*1)		–			
		WAV	192 kHz	–		Y		Y		–			
			176.4 kHz	–		Y		Y		–			
	96 kHz		–		Y		Y		Y (*2)				
	88.2 kHz		–		Y		Y		Y (*2)				
	FLAC	88.2 kHz	–		Y		Y		–				
		44.1 kHz / 48 kHz	–		Y		Y		Y (*2)				
		44.1 kHz / 48 kHz	–		Y		Y		Y (*2)				
		44.1 kHz / 48 kHz	–		Y		Y		–				
	CD Quality	WMA	WMA 2, 7, 8, 9, 10		–		Y		–		–		
		MP3	MPEG-1/2 Layer-III		–		Y		Y		Y		
		Digital Section	DAC		–		Burr-Brown PCM1795		Burr-Brown PCM1795		Burr-Brown PCM5102		
			Dual Internal Clock		–		–		Y		–		
	Analog Section	Dual Monaural Design		Y		–		–		–		–	
		Separate Ground Circuit Design		–		–		Y		–		–	
Power	Toroidal-core Power Transformer		Y		–		–		–		–		
Specifications													
Headphone Output	Maximum Output Power		32 ohms load	1400mW + 1400mW		170mW + 170mW		160mW + 160mW		160mW + 160mW			
			300 ohms load	–*		80mW + 80mW		60mW + 60mW		60mW + 60mW			
			600 ohms load	135mW + 135mW		40mW + 40mW		30mW + 30mW		30mW + 30mW			
	Drive Modes		Unbalanced Drive	Y		Y		Y		Y			
		Ground-separate Drive	–		–		Y		–				
Damping Factor Select				Y		–		–		–			
Active DC Servo Technology				Y		–		–		–			
Connector				1/4" (6.3mm) Stereo Jack		1/8" (3.5mm) Stereo Jack		4-polar 1/8" (3.5mm) Stereo Jack		1/8" (3.5mm) Stereo Jack			
Audio Inputs/Outputs	Analog Inputs	Line	RCA Pin	2		–		–		–			
			1/8" (3.5mm) Stereo Mini	1		1 (*5)		1		1 (*8)			
		Balanced	XLR 3-31	1 (*3)		–		–		–			
	Digital Inputs	USB	USB Type A		–		1		1				
		Streaming	Micro USB Type B		–		1		1		1		
	Analog Outputs	Line	S/PDIF	1/8" (3.5mm) Mini		–		1 (*5)		1		1 (*8)	
			RCA Pin	1 (*4)		–		–		–		–	
Digital Output	S/PDIF, DoP	1/8" (3.5mm) Mini Coaxial	–		1 (*5)		–		–		–		
General	Frequency Response (Products with capability of 40kHz or higher frequency response are regarded as "Hi-Res" products.)			2Hz to 100kHz (+0dB/–3dB)		10Hz to 80kHz (LINE IN)		10Hz to 100kHz (AUDIO IN)		10Hz to 100kHz (AUDIO IN)			
	Signal-to-Noise Ratio			110dB		105dB or Higher		110dB		(*7)			
	Total Harmonic Distortions (JEITA)			0.002% (32 ohms load)		0.004% (32 ohms load)		(*7)		0.001% (32 ohms load)			
	Power Consumption (or Battery Life)			22 watts		Max. 7 hours		Max. 5 hours		Max. 8 hours			
	Overall Dimensions (W x H x D)			11.4" x 3.2" x 9.6" 290 x 81.2 x 244 mm		2.7" x 4.8" x 0.8" 69.6 x 123 x 21.5 mm(*6)		2.6" x 4.8" x 0.9" 65.4 x 121.4 x 21.6 mm (*6)		2.5" x 4.4" x 0.9" 64 x 112 x 21.7 mm (*6)			
	Weight			9.1 lbs. / 4.1 kg		9.9 oz. / 280 g		6.4 oz. / 182 g		7.4 oz. / 210 g			
	Included Accessories			Power Cord (w/ Plug Adapter), Manual, Owner's Warranty Card		USB Cable for PC, DC Charging Cable, RCA Conversion Cable, Rubber Bands x 2, Owner's Manual (inc. Warranty Card)		USB Cable for PC, DC Charging Cable, RCA Conversion cable, Owner's Manual (inc. Warranty Card)		USB Cable for PC, DC Charging Cable, Rubber Bands x 2, Owner's Manual (inc. Warranty Card)			

\*1 Supports playback from TEAC HR Audio Player via USB Input, and microSD card. \*2 Supports playback from TEAC HR Audio Player via USB Input, and Optical Digital Input. \*3 HOT on Pin 2. \*4 Variable, Fixed or Cancel Output Level (User selectable).

\*5 Convertible connector (Line Input/Coaxial Digital Input/Optical Digital Input/Coaxial Digital Output). \*6 Excluding protrusions. \*7 Details not announced. \*8 Convertible connector (Line Input/Optical Digital Input)

Product Category		Subwoofer	
Model Name		SW-P300	
Type of Product		Active Subwoofer	
Specifications			
Subwoofer section	Type of Subwoofer		Closed (Front faced/Down faced compatible)
	Unit		200mm Cone
	Phase Change		Y
	High-cut Filter Adjustment		Y (non-step, Off)
	Output Power	Maximum Output Power	91 W (8 ohms, JEITA)
		Rated Output Power	72 W (8 ohms, JEITA)
	Audio Input	Low Level	RCA Pin
		High Level	Scre-type Speaker Terminals
General	Impedance		8 ohms
	Maximum Input Power		150 W (8 ohms, JEITA)
	Frequency Response		40 Hz to 200 Hz
	Power Consumption		18 watts
Dimensions	Front faced	10.6" x 11.8" x 11.8" / 270 x 300 x 300 mm	
	Down faced	10.6" x 12.6" x 11.4" / 270 x 320 x 291 mm	
Weight		21.2 lbs. / 9.6 kg	
Included Accessories		Power Cord, Front Grill, Aluminum Feet x 4, Nylon Washers x 4, RCA Audio Cable (10ft./3m), Speaker Cables (10ft./3m) x 2, Cleaning Cloth, Owner's Manual (inc. Warranty Card)	

Reference for Icons



Supports DSD Digital Streaming.  
(Shown with Sampling Frequency)



Supports PCM Digital Streaming.  
(Shown with Sampling Frequency)



Supports Digital-to-Analog Conversion by Built-in D/A Converters for Left and Right channels individually.



Supports Digital-to-Analog Conversion by Built-in D/A Converter.



Supports Digital Streaming via USB Port.



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



Ideal for air travel with iPad/Android tablet.



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## WARNING

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

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