

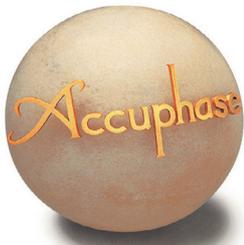
Accuphase

MDS SA-CD PLAYER

DP-550

- High-grade SA-CD/CD drive
- MDS+ type D/A converter with four parallel devices
- Support for playback of DSD discs in DSF file format
- Direct Balanced Filter with separate line and balanced signal paths
- HS-LINK and USB digital interface
- Transport outputs and digital inputs allow insertion of DG-48 into signal path for sound field correction
- Phase selector for balanced outputs
- Numeric indication of sampling frequency





High-performance integrated SA-CD/CD player — Newly developed high-grade SA-CD/CD drive combined with exquisite disc tray and ultra-quiet disc loading mechanism ensures smooth operation. Innovative MDS+ type D/A converter using four parallel DAC circuits achieves straight D/A conversion of DSD signal. Separate configuration of transport and processor sections, each equipped with a set of HS-LINK, coaxial, optical, and USB (input only) connectors.

On the occasion of the 40th anniversary of its founding, Accuphase released the separate type SA-CD/CD player combo DP-900/DC-901, incorporating all of its superb technology and heralding the beginning of a new age. The products were enthusiastically received in Japan as well as overseas and have found their rightful place as the ultimate reference for SA-CD sound quality. The DP-550 features an exclusive mechanism developed in-house by Accuphase and benefits in many ways from the advanced technology of the flagship models. It is a high-performance integrated SA-CD/CD player that represents the fruits of intensive research and many extended listening sessions. Like other Accuphase players before it, the DP-550 is dedicated purely to the optimal reproduction of two-channel music sources. The player lets the listener experience the sonic splendor of SA-CDs and CDs without any restraints or limitations.

The newly designed high-grade SA-CD drive mechanism in the DP-550 is the ultimate tool for extracting the information on SA-CD discs one hundred percent. It not only keeps internal vibrations of rotating parts to a minimum, but is also highly impervious to external vibrations. This ensures that the digital signal remains in a highly pure and accurate state. A dedicated DSP chip controls the digital servo, allowing the digital signal encoded on the SA-CD in DSD (Direct Stream Digital) format to be processed with utmost accuracy. The all-important laser pickup is a new single lens/twin laser diode type with high-speed access mechanism, achieving extremely precise signal readout. The digital processor section of the DP-550 features an innovative method called MDS+ (Multiple Delta Sigma+) developed by Accuphase. With MDS+, the DSD signal is supplied directly to multiple D/A converters arranged in a parallel configuration. After conversion, the signals from the converters are summed which has the effect of minimizing conversion errors. The D/A converters in the DP-550 are the latest Hyperstream™ types (ES9008 from ESS Technology Inc.). Using four of these superb devices in parallel results in amazing conversion accuracy with drastically improved parameters: minimal THD, high S/N ratio, and excellent low-level linearity. The full wealth of the musical information on the SA-CD can finally emerge before the listener.

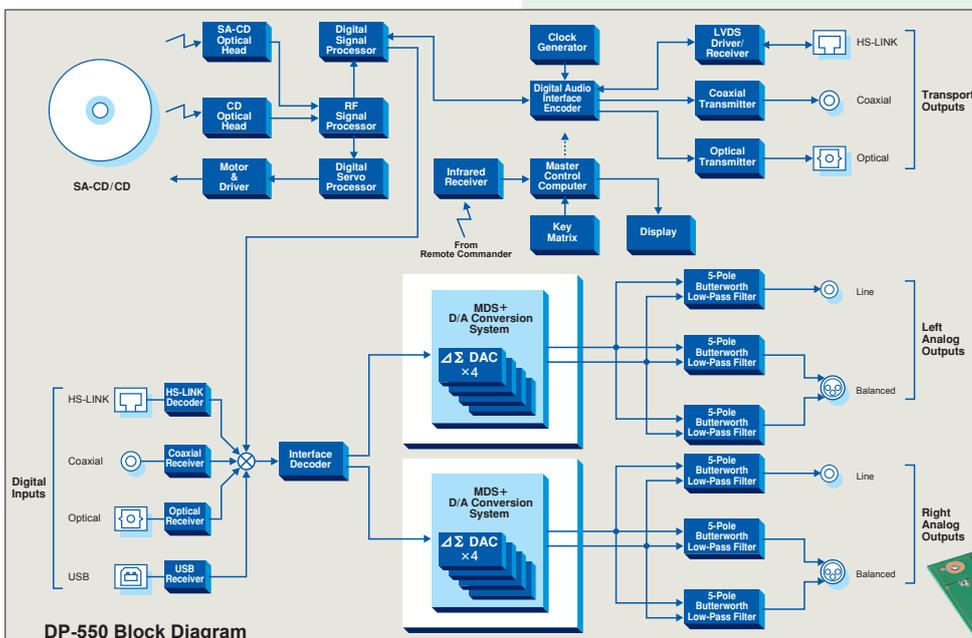
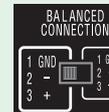
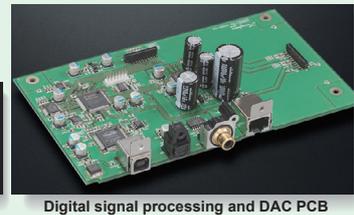
Features and Functions of Transport Section

- **High-grade SA-CD/CD drive.**
 - ① Highly rigid and precise construction with sturdy, heavyweight chassis to absorb external vibrations.
 - ② Traverse mechanism achieves floating design with newly developed viscous dampers.
 - ③ Massive bridge cover.
 - ④ Non-resonant design and low center of gravity further reduce vibrations.
 - ⑤ High-quality disc tray extruded from an aluminum block, plus super-quiet and smooth disc loading mechanism.
- SA-CD/CD transport outputs ultra pure digital signal.
- Single lens/twin pickup high-speed access mechanism.
- Accuphase's proprietary high-quality digital audio interface HS-LINK (carries both SA-CD and CD signal).
- New chucking magnet design using neodymium with high flux density, together with 8-pole magnetizing yoke firmly and evenly grasps the turntable and prevents disc wobble.
- Support for DSD discs recorded using DSF file format on a computer or similar.



Features and Functions of Digital Processor Section

- MDS+ type D/A converter with four DACs driven in parallel.
- Digital level control allows adjustment down to -80 dB.
- Separate transport and processor sections, with inputs and outputs for HS-LINK, coaxial, optical, and USB (input only).
- Sampling frequency indication (kHz) during transport operation and when using external input.
- Triple layer bottom plate and carbon cast iron insulator feet with superior damping characteristics absorb vibrations for optimum sound quality.
- Phase selector for balanced outputs.
- Balanced and line analog outputs (1 set each).

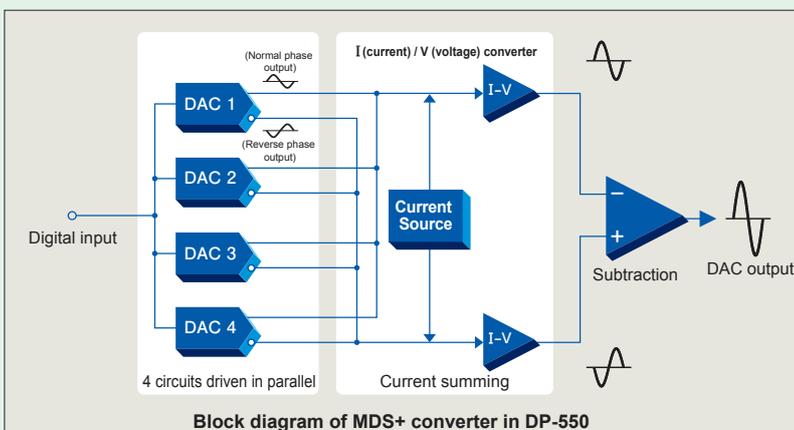


■ Supplied remote commander RC-110
Give access to various functions including direct play, repeat, input switching, and level control.



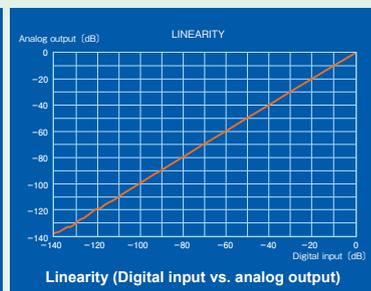
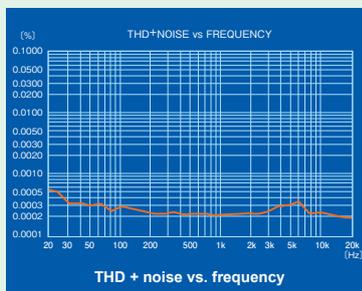
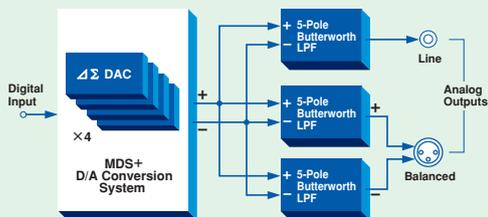
Further Refined MDS+ Type D/A Converter

MDS+ is a revolutionary approach that employs multiple delta-sigma type D/A converters connected in parallel, for drastically improved performance. The same digital signal is supplied to each converter, and the output of the converters is summed before being sent to subsequent stages. The signal components in the combined output are simply added up, thereby increasing their level, but components that are due to conversion errors may cancel each other out, causing a reduction in level compared to simple summing. This in turn increases the ratio of the target signal to error components, resulting in a drastic improvement in all relevant aspects of converter performance, such as accuracy, S/N ratio, dynamic range, linearity, and THD. (When the number of converters is taken as "n", the improvement is \sqrt{n} .) In the DP-550, four Hyperstream™ DACs (ES9008 from ESS Technology Inc.) are used in parallel. Compared to a single converter, this results in an overall performance improvement by a factor of 2 ($=\sqrt{4}$). Because the performance improvement afforded by the MDS principle is not dependent on signal frequency or signal level, noise at very low levels that has plagued the output of conventional delta-sigma converters can also be reliably reduced.



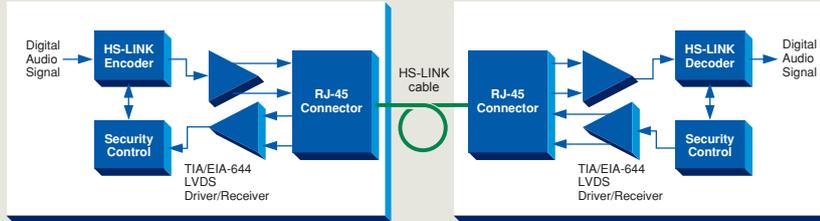
Direct Balanced Filter With Separate Line/Balanced Circuitry

The analog filter designed to remove so-called aliasing noise in the very high frequency range employs 5-pole Butterworth analog filters with extremely flat frequency response in the passband. In order to prevent unwanted interaction, completely separate low-pass filters are provided for the line and balanced signal paths.



— Accuphase Exclusive Digital Interface — HS-LINK: High Speed LINK

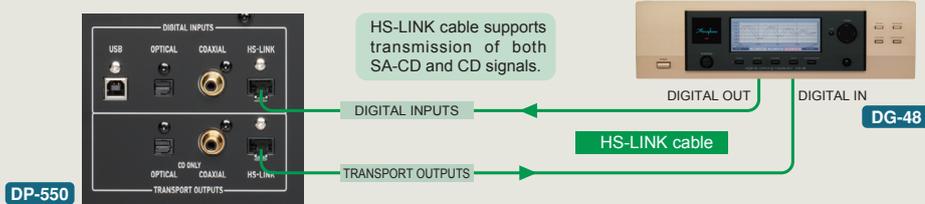
HS-LINK is an ultra high-quality digital audio interface developed by Accuphase using latest digital signal transmission technology. It supports send/receive verification for copyright protection. The LVDS (Low Voltage Differential Signaling) principle allows a single dedicated HS-LINK cable to transmit all audio data with utmost fidelity, including conventional digital signals as well as 2.8224 MHz/1-bit and 192 kHz/24-bit signals.



HS-LINK Block Diagram

DG-48 connection example

The DG-48 can be connected between the transport outputs and digital inputs of the DP-550 (using HS-LINK, coaxial, or optical connection). This allows sound field compensation of the signal from the CD transport in the digital domain.



Utilizing the USB port

The USB port (Type B) on the DP-550 can be connected to a computer using a USB cable (USB Type B connector).

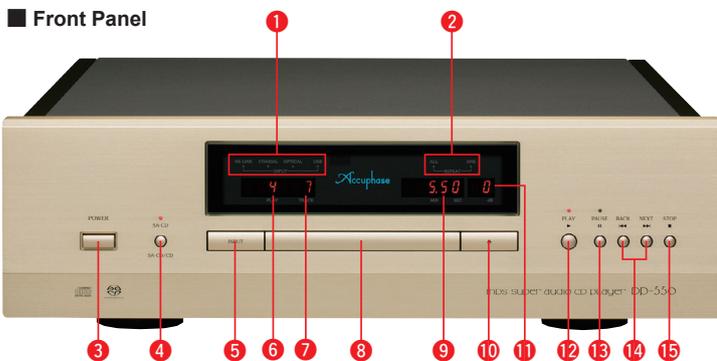


- Depending on the computer, it may be necessary to first install the software on the "USB Utility" CD-ROM supplied with the DP-550.
- The capability for playing back music data via USB depends on the operating system and the music playback software of the computer.
- For information on computer settings and connection methods for USB, refer to the documentation of the computer.

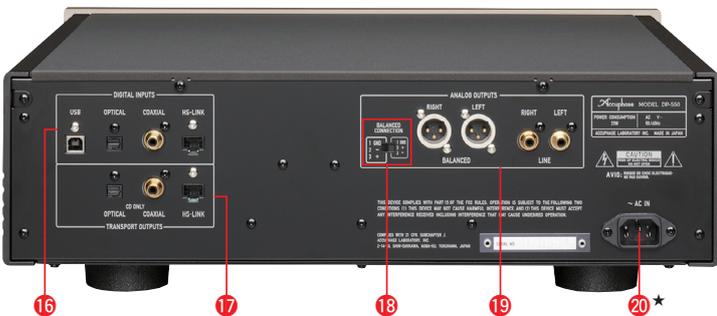
High-resolution music data up to 192 kHz/24-bit downloaded to the computer can be played back via the USB link.



Front Panel



Rear Panel



- Input indicator: HS-LINK / COAXIAL / OPTICAL / USB
- Repeat indicator
- Power switch
- SA-CD/CD selector button
- Input selector button
- Current track indicator
- Total number of tracks indicator
- Disc tray
- Time indicator
- ▲ Disc tray open/close button
- Output level indicator
- ▶ Play button
- ⏸ Pause button
- ⏮ BACK / ⏭ NEXT track search buttons
- Stop button
- Digital inputs (USB, OPTICAL, COAXIAL, HS-LINK)
- Transport outputs (OPTICAL, COAXIAL, HS-LINK)
- Balanced output phase selector
- Analog outputs
 - Balanced output connectors
 - Ground
 - Inverted (-)
 - Non-inverted (+)
 (Can be changed with phase selector 18)
 - Line output connectors
- AC power connector*

Supplied accessories

- AC power cord
- Audio cable with plugs (1 meter)
- Remote Commander RC-110

Remarks

- ★ This product is available in versions for 120/220/230 V AC. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
- ★ 230 V version has an Eco Mode that switches power off after 120 minutes of inactivity.
- ★ The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.

DP-550 Guaranteed Specifications

* Guaranteed specifications are measured according to the JEITA standard CP-2402A.
* Measurement disc: PHILIPS 3122-783-00632

Transport section

- **Compatible disc formats** 2-channel Super Audio CD
CD
DSD disc (DSF file format)
- **Data read principle** Non-contact optical pickup
- **Laser diode wavelength** SA-CD: 650 nm
CD: 780 nm
- **Transport section outputs** HS-LINK Connector type: RJ-45
Suitable cable: Dedicated HS-LINK cable
COAXIAL Format: IEC 60958 compliant
OPTICAL Format: JEITA CP-1212 compliant

Digital processor section

- **Digital inputs** HS-LINK Connector type: RJ-45
Suitable cable: Dedicated HS-LINK cable
COAXIAL Format: IEC 60958 compliant
OPTICAL Format: JEITA CP-1212 compliant
USB Format: USB 2.0 Hi-Speed (480 Mbps compliant)
- **Sampling frequency** HS-LINK
32 kHz to 192 kHz/24-bit (2-channel PCM)
2.8224 MHz/1-bit (2-channel DSD)
USB, COAXIAL
32 kHz to 192 kHz/24-bit (2-channel PCM)
OPTICAL
32 kHz to 96 kHz/24-bit (2-channel PCM)
- **D/A converter** 4 MDS+ principle
- **Frequency response** 0.7 - 50,000 Hz +0, -3.0 dB
- **Total harmonic distortion** 0.0007% (20 to 20,000 Hz)
- **Signal-to-noise ratio** 118 dB
- **Dynamic range** 115 dB (24-bit input, low-pass filter off)
- **Channel separation** 108 dB (20 to 20,000 Hz)
- **Output voltage and impedance** BALANCED: 2.5 V 50 ohms, balanced XLR type
LINE: 2.5 V 50 ohms, RCA phono jacks
- **Output level control** 0.0 dB to -80.0 dB, 1-dB steps (digital)

General

- **Power requirements** AC120 V/220 V/230 V (Voltage as indicated on rear panel)
50/60 Hz
- **Power consumption** 23 W, standby: 0.5 W
- **Max. dimensions** Width 465 mm (18-5/16")
Height 151 mm (5-15/16")
Depth 393 mm (15-1/2")
- **Mass** 18.5 kg (40.8 lbs) net
25.0 kg (55.1 lbs) in shipping carton



ACCUPHASE LABORATORY, INC.

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