SACD/CD Transport With Dedicated Digital Output
Digital Processor Supports New Generation Formats
Compatible With New Digital Interface: HS-Link
MDS Type D/A Converter Assures Unsurpassed Precision
Accuphase Opens Up Another Dimension in Pure Audio

Separate Type SACD Player for a Superb New Medium: Super Audio CD.

**DP-100 Application Examples**

To connect the DP-100 to other equipment for wide frequency range/wide dynamic range reproduction of a SACD source, an HS-Link interface is required. Using HS-Link, the DP-100 can also be connected to other current Accuphase components besides the DC-101, such as the Digital Preamplifier DC-330 and the DP-85, DP-77, or DP-75V. By installing other option boards, combination with components such as the Digital Voicing Equalizer DG-28/DG-38 and the Channel Divider DF-35 also becomes possible. This opens up a variety of ways to enjoy high quality music media.

* The HS-Link cable is supplied with the DP-100.

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**Connection of DP-100 to DC-101 or DP-75V**

- **HS-Link Input Board DI2-HS1**
  - Installed as standard equipment in DC-101.
  - Serves for connecting the DP-100 to the DC-330, DP-75V, etc.
  - Requires a dedicated HS-Link cable, such as the HDL-15 from Accuphase.
  - Uses two slots.

- **DI2-HS1 installed as standard equipment in DC-101**
  - DI2-HS1 installed in option board slot of DP-75V

**Connection of DP-100 to DC-330**

- **HS-Link Output Board DO2-HS1**
  - Installed in option board slot of DC-330
  - By installing this board in the DC-330, the signal from the DP-100 can be sent on to the DF-35 in digital form.
  - Requires a dedicated HS-Link cable.

**Digital Connection of DP-100 to DC-330 and DF-35**

Using the HS-Link, it is possible to keep the connection of DP-100 → DC-330 → DF-35 entirely in the digital domain until directly before the power amplifier. The various components are connected with HS-Link cable.

- **DI2-HS1 installed in option board slot of DC-330**
- **DO2-HS1 installed in OUTPUTS slot of DC-330**
- **DI2-HS1 installed in option board slot of DF-35**
Combination Example of DP-100 With DG-28

The DG-28 can handle 48-kHz/24-bit signals and perform equalization up to a threshold of 24 kHz. For high sampling frequency signals exceeding 48 kHz such as from SACD, a "Wide Range Digital Input/Output Board for DG-28 Connection" is required.

Only the signal components in the audible range up to 24 kHz are sent to the DG-28 for equalization. The signal components above 24 kHz are routed directly to the output using a high-pass filter. The equalized signal from the DG-28 is mixed to the bypassed components and then returned in digital form.

Wide Range Digital Input/Output Board for DG-28 Connection DIO2-DG1

Designed for installation in the EXT DSP slot of the DC-101, DC-330 or DP-75V. Allows digital connection of DG-28.

- Uses two slots.

Wide Range Analog Input/Output Board for DG-28

Unbalanced connection: AIO-DGU1
Balanced connection: AIO-DGB1

Allows connection of DG-28 between analog preamplifier and power amplifier.

- Installed in option board slots of DG-28.
- Uses four slots.

Digital connection to DG-28 (with DC-101 or DP-75V)

- DIO2-DG1 installed in option board slot of DP-75V
- DIO2-DG1 installed in EXT DSP slot
- DIO2-DG1 installed in EXT DSP slot (using 2 slots)

Analog connection to DG-28

- DG-28 is inserted between preamplifier and power amplifier
- DIO2-DG1 installed in EXT DSP slot (using 4 slots)

Digital connection to DG-28 (with DC-330)

- DIO2-DG1 installed in option board slot of DC-330
- DIO2-DG1 installed in EXT DSP slot

Analog connection to DG-28 and DP-35

- Analog Input Board installed in option board slot of DF-35
- AIO-DGU1 or AIO-DGB1

For information on combination with the DG-38, see the catalog and documentation for that model.

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The DC-101 is a digital processor incorporating the latest digital technology to handle new generation formats such as SACD (2.8224 MHz/1 bit) or DVD-Audio (192 kHz/24 bit). From the data supplied by these high-quality sources, the DC-101 extracts music signals of the utmost purity.

The crucial step in turning the digital information into analog form is handled by an MDS (Multiple Delta Sigma) converter. This principle was first developed for the DC-300 and affords absolutely outstanding conversion precision. To assure flexibility and allow future expansion, all inputs to the DC-101 are handled by option boards.

An HS-Link input board and a regular digital input/output board are provided as standard equipment. Any option board can be used in any slot.

Accuphase offers a wide range of digital and analog input and output boards. Up to five such boards can be installed in the option board slots of the unit in addition to the boards provided as standard equipment. This allows the user to configure the system to fit any need.

**Option Boards**

- **HS-Link Input Board** D2-HS1 for connection to DP-100 provided as standard equipment
- **Digital Input/Output Board** DIO-OC1 with optical and coaxial connectors provided as standard equipment
- **EXT DSIP option board slot connection of DG-28**
  - By installing a digital input/output board in this slot, sound field compensation entirely in the digital domain becomes possible.
  - The DSIP supports signals with a sampling frequency of up to 48 kHz. For sources with higher sampling frequencies such as SACD, the Wide Range Digital Input/Output Board for DG-28 Connection DIO-OC1 (see separate page) is required.

**Versatile processor features HS-Link input as standard equipment, for SACD reproduction without compromise.** Compatible with the latest generation of super high quality sources such as SACD and DVD-Audio.

**Revolutionary MDS (Multiple Delta Sigma) converter with 24-bit resolution assures superior precision.** Ultra jitter-free PLL circuit topology.

**MDS (Multiple Delta Sigma) converter reduces distortion to theoretical limits and assures outstanding SN ratio**

**MDS (Multiple Delta Sigma) is a revolutionary design which employs several delta sigma type converters in a parallel configuration, resulting in drastically improved accuracy.** The delta sigma principle combines oversampling with noise-shaping (a kind of digital feedback) which projects the amplitude information of the digital signal onto a time axis for precise conversion.

**Fig. 1 Principle of MDS type DAC converter**

**As shown in the diagram, the Ultra Jitter-Free PLL Circuit of the DC-101 consists of a preamble detector and a voltage-controlled oscillator (VCO) using a quartz crystal element. The master clock produced by this PLL circuit is totally free from the effects of pulse distortion and jitter.**

**Fig. 2 Ultra jitter-free PLL circuit**

**D/A converter with printed circuit boards made from Teflon (glass fluorocarbon resin) with low dielectric constant and low loss.**

* Teflon is a registered trademark of DuPont USA.

**HPC Coaxial (BNC) Input Board DI-BNC1**

**HPC D/A converter board (left & right), DAI board assembly.**

**Assembly with DAI encoder/decoder, Ultra Jitter-Free PLL Circuit, and other circuits.**

**Two sets each of balanced and unbalanced analog outputs, low dielectric constant and low loss Teflon boards, DMS D/A converter board (left & right), DAI board assembly.**

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**For copyright reasons, the SACD/CD signal supplied via the HS-Link input board does not appear at the output connectors of other digital input/output boards (except HS-Link).**

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  - By installing a digital input/output board in this slot, sound field compensation entirely in the digital domain becomes possible.
- **Any option board can be used in any slot.**
- **All option boards designed for the DC-300, DC-330, DP-75V, DG-28, DF-35, etc. can be used.**

**MDS D/A converter board (left & right), DAI board assembly.**

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**Super Audio CD Transport**

**DP-100**

A new era is about to unfold in the history of audio. The Super Audio CD offers a way to experience music like never before. SACD/CD transport with dedicated digital output and HS-Link: the ultimate digital audio interface. Stationary optical assembly with dual pickups assures absolutely pure digital signal readout. Top loading principle with smooth sliding door.

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### DP-100 Guaranteed Specifications

- **Compatible disc formats:** 2-channel Super Audio CD, CD
- **Data read principle:** Non-contact optical pickup
- **Laser diode wavelength:** SACD: 650 nm, CD: 780 nm
- **Digital inputs:**
  - HS-Link: RJ-45
  - COAXIAL: EIAJ CP-1201
- **Power requirements:**
  - AC120 V/230 V (Voltage as indicated on rear panel)
  - 50/60Hz
- **Power consumption:** 24 W
- **Maximum dimensions:**
  - Width: 475 mm (18-11/16")
  - Height: 150 mm (5-7/8")
  - Depth: 398 mm (15-11/16")
- **Weight:** 20.8 kg (45.9 lbs) net
  - 27.3 kg (59.5 lbs) in shipping carton
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### Remarks
- This product is available in versions for 120/230 V AC. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
- The shape of the AC inlet and plug of the supplied power cord depend on the voltage rating and destination country.

http://www.accuphase.co.jp/