High-rigidity, high-precision SA-CD/CD drive
Innovative digital signal processor with MDSD technology
MDS++ D/A converter with eight DACs driven in parallel
"Ultra Jitter-Free Plus" PLL circuit
"Direct Balanced Filter" with totally separate balanced and unbalanced signal paths
Transport outputs and digital inputs
Accuphase HS-Link digital interface

When Accuphase introduced the ultimate separate-type SA-CD/CD player, the models DP-800 and DC-801, a new epoch in audio history had begun. Garnering worldwide acclaim both for their technological excellence and sound quality, the transport and processor pair has become the new reference for SA-CD reproduction.

The new DP-700 is an integrated type SA-CD player incorporating that very same state-of-the-art technology. Major highlights are the ultra-rigid SA-CD/CD drive assembly and the MDSD principle that takes the DSD signal straight from the digital to the analog domain. Latest digital signal processing technology is in evidence throughout. Extensive series of listening tests were conducted to shape the DP-700 into the world’s foremost integrated SA-CD/CD player. As with all other Accuphase players so far, a conscious decision was made not to support multi-channel formats but rather focus on extracting the ultimate in musical fidelity from two-channel SA-CD music sources.

In the transport section, a dedicated DSP chip controls the digital servo to assure accurate readout of the signal recorded on the SA-CD. Another vital aspect is the single-lens/twin laser diode pickup mounted to a high-speed positioning mechanism, providing a significant improvement in read access times and accuracy. The processor section features the innovative MDSD principle forming a sophisticated moving average filter circuit, together with the MDS++ D/A system that keeps conversion errors to an absolute minimum and at the same time acts as high-cut filter efficiently removing noise components in the high frequency domain. The Direct Balanced Filter provides separate low-pass filtering for the balanced and unbalanced signal paths, and the analog balanced output circuitry eliminates interference during signal transmission. The overall result is simply outstanding sonic performance that removes the last veil from the music and beautifully demonstrates what the SA-CD format is all about.

Internally, the transport and processor sections of the DP-700 are kept entirely separate. Digital inputs allow independent use of the processor section for external sources to enjoy music reproduction with the same superb quality.

Accuphase Exclusive Digital Interface HS-Link: High Speed Link

HS-Link is an ultra high-quality digital audio interface developed by Accuphase using the 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 2.8224 MHz/1-bit and 192 kHz/24-bit signals.
The DSD signal from the input is upsampled by a factor of 2, resulting in a sampling frequency of 5.6448 MHz/1-bit. After volume processing, the circuit performs D/A conversion using a highly ingenious moving-average filter principle.

In the DP-700, this involves seven delay devices and eight MDS++ type D/A converters. The signal is delayed (shifted) progressively by one clock cycle to produce eight signals which are sent to separate D/A converters for direct D/A conversion. The converted signals are then summed. Since conversion errors are kept to an absolute minimum by the use of MDS++ type DACs, the MDSD principle results in an 8-pole high-cut filter with perfectly linear phase characteristics.
**Front Panel**

1. Input indicators: TRANSPORT/HS-LINK/COAXIAL/OPTICAL
2. Track number indicator
3. Index indicator
4. Time indicator
5. Output level indicator
6. SA-CD/CD indicator
7. Repeat indicator
8. Program indicator
9. Power switch
10. SA-CD/CD selector button
11. Input selector button
12. Disc tray

**Rear Panel**

1. Power supply assembly
2. Transport output/digital input assembly
3. power connector
4. Unbalanced output connectors
5. Balanced output connectors (analog)
6. Analog outputs
7. Digital inputs (HS-Link, coaxial, digital)
8. Analog outputs (HS-Link, coaxial, digital)
9. Non-contact optical pickup
10. Laser diode wavelength
11. Data read principle
12. Compatible disc formats
13. Data read principle
14. Laser diode wavelength
15. Digital processor section
16. Power requirements
17. Power consumption
18. Max. dimensions
19. Mass

**Guaranteed Specifications**

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

**Transport section**

- **Compatible disc formats**: 2-channel Super Audio CD
  - CD
- **Data read principle**: Non-contact optical pickup
- **Laser diode wavelength**
  - SA-CD: 650 nm
  - CD: 780 nm
- **Transport section outputs**
  - Suitable cable: Dedicated HS-Link cable
  - COAXIAL: Format: IEC-60958 compliant
  - OPTICAL: Format: JEITA CP-1212 compliant

**Digital processor section**

- **Digital inputs**
  - Suitable cable: Dedicated HS-Link cable
  - COAXIAL: Format: IEC-60958 compliant
  - OPTICAL: Format: JEITA CP-1212 compliant
- **D/A converter**
  - MDS++ principle (DSD signal)
  - MDS++ principle (PCM signal)
- **Frequency response**
  - 0.5 - 50,000 Hz  +0, –3.0 dB
- **Total harmonic distortion + noise**
  - 0.0008% (20 to 20,000 Hz)
- **Signal-to-noise ratio**
  - 114 dB
- **Dynamic range**
  - 110 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
  - UNBALANCED: 2.5 V 50 ohms, RCA phono jack
- **Output level control**
  - 0.0 dB to –40.0 dB (digital)

**General**

- **Power requirements**
  - AC120 V/230 V 50/60 Hz
  - (Voltage as indicated on rear panel)
- **Power consumption**
  - 35 W
- **Max. dimensions**
  - Width: 477 mm (18-3/4")
  - Height: 156 mm (6-1/8")
  - Depth: 394 mm (15-1/2")
- **Mass**
  - 27.0 kg (59.5 lbs) net
  - 33.8 kg (73.8 lbs) in shipping carton

**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 depends on the voltage rating and destination country.

**Supplied accessories:**

- AC power cord
- Audio cable with plugs (1 meter)
- Remote Commander RC-100
- Cleaning cloth

*Specifications and design subject to change without notice for improvements.*

http://www.accuphase.com

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