Interactive
Media
Systems

CD-I

CDI 605

Professional CD-I System for application building and verification

- CD-I multimedia system with full base-case functionality, and extended functionality for application verification
- With appropriate hardware and software (Media Mogul), an excellent development tool
- Supports Philips authoring equipment e.g. for emulation
- Two standard CD-I I/O ports plus two RS232-C serial communication ports
- Floppy disk drive for auxiliary software support
- Plays all CD-I and CD-DA discs including CD-Graphics, Photo-CD, and related formats
- Multistandard TV in RGB, Y/C or CVBS for PAL and NTSC
- Very easy control (through resident "user shell")
- LAN connection via Thin-wire Ethernet port
- SCSI port and parallel (Centronics) printer port
- Additional 4 MByte Random Access Memory
- Extension slot for adding memory and communication facilities
- Caddy loading
- Complete with standard CD-I mouse

PHILIPS

PHILIPS

THE CD-I SYSTEM WITH FULL BASE CASE AND APPLICATION VERIFICATION FUNCTIONALITY

For the sophisticated, Hi-tech procedures of CD-I application building and capability verification, custom-designed tools are absolutely essential. The Philips CDI 605 is just such a tool; a single-unit CD-I (drive) system with full base case functionality and interfaces for application building (emulation and verification).

With an emulator interface featuring DO (Digital Out), plus SCSI, Centronics and Thin-wire Ethernet interfaces, the CDI 605 can be configured directly into CD-I authoring systems at all performance levels.

Through its CD-I Drive and MultiMedia Controller, the CDI 605 will run all CD-I discs produced in accordance with the worldwide CD-I standard. In line with the CD-I concept , it is also fully compatible for playing CD-DA discs with or without CD+G, CD-DA tracks on CD-I discs, and Photo-CDs. Additional hardware and/or software can be incorporated for CD-ROM discs. For "Bridge discs" (CD-ROM XA discs with a CD-I application program), the CDI 605 is fully compatible. Needless to say, it is fully equipped to run a very wide range of extended and base case applications. There is ample provision of ports and an extension slot to permit general server applications too.

In addition to the standard CD-I motion video capabilities the system is prepared for optional updating to full-screen, full-motion video by an extension kit.

A resident "User Shell", in conjunction with the mouse supplied, keeps operation simple. The combination of dynamic pointing device action and immediate (real time) visual feedback makes even sophisticated operations perfectly easy to follow. High technical skills are not required to use the system.

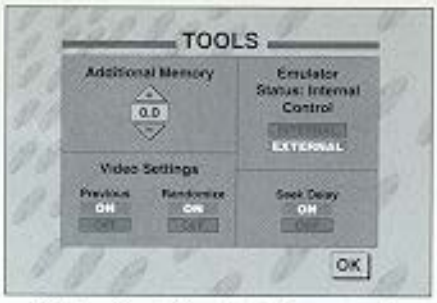
THE CDI 605 SYSTEM

Control of CDI 605 functionality is via an easy-to-use on-screen menu. Accessible at any time, this offers:

- Programmable memory: Up to 4MB of programmable memory expansion (on top of 1MB for base case): this allows virtually any application to be referred to base case. Memory size is adjustable in 0.5MB steps.

  If no extra memory is present, then the size of the memory conforms exactly with that of the FFGB Base Case memory.

  Any unused RAM capacity is available for read-only purposes, and this can add lots of flexibility to application verification. Programs, for example, can be downloaded into high-address memory. Alternatively, completely different dedicated drivers, or even another shell, can be downloaded.



- Video/audio default settings check: All internal registers can be shuffled to verify correct default settings for any application.

  The manufacturer-dependency of register default settings means that applications need to be checked for correct register initialization, conforming with their requirements. The CDI 605 offers the facility to force such initialization checks by randomizing the register settings. About three attempts at initialization, each with different register settings, ensure a very high probability that initialization is correct. In this way, the application is able to prove itself.

- Access Time acceptability: the CDI 605 can access any point within 60 minutes of program material in less than 1 second. But its seek delay feature slows down the access time to the minimum required by the CD-I Full Functional Specification. This allows the simulation of the behaviour of applications on a "worst case" player as defined by the CD-I standard.

- Internal/External drive selection: either the CDI 605 drive or an external drive (connected through the emulator interface) can be selected by means of the standardized Digital Output.

Menu status settings are always clearly displayed.

THE "USER SHELL"

With "point and select" actions, all the resident functions of the CDI 605 can be controlled so easily that the actions become instinctive. This is because of the special Philips "User Shell" that puts the user in direct interactive communication with the system. Running a CD-I disc is a simple matter of inserting the disc and then selecting options from the screen according to choice. For CD-Digital Audio discs, the user shell offers many of the functions found on top-of-the-range CD players. An "Info" facility supplies help screens relating to user shell functions. Preferred Settings are also offered. These include CD-I Auto-start, Time/Date display and CD-DA Auto-start. When Preferred Settings have been made, the system automatically adopts them when started up.

Personal Memory

A floppy disk inserted in the 3.5" disk drive can be used for system configuration. It can also be linked with the CD-I disc to provide facilities such as storage, retrieval, access control and application loading, plus the ability to add data and/or programs to existing applications.

The floppy can be used as a personal memory for valuable data, such as tasks accomplished and "Bookmarks", or to download specific pictures from the CD-I disc.

Certain applications require authorised access to sensitive data; for example by managerial staff only, or by employees rather than the general public. Such authorisations can be carried on "personalised" floppy disks.
System extensions and server applications can be configured with complete ease by staff with no special training. Simply by inserting the appropriate floppy disk and calling up the "application load" function in the "User Shell", specific printers, other peripherals or communication connections can be configured fully automatically.

For application builders using CD-RTOS, full functionality is offered for preparing floppy disks for application users and for system configuration. Floppy disks can also be prepared in an MS-DOS environment.

Basic control and configuration

In addition to the mouse supplied, the CDI 605 can also accept wired inputs from standard pointing devices such as joysticks, graphics tablets and touch screens, as well as CD-I keyboards.

Through the infra-red sensor on the front panel, or a remote sensor connected to the rear panel, the CDI 605 can also accept inputs from the Philips "Thumbstick" infra-red remote control which is available as an optional extra.

The minimum hardware configuration needed to run CD-I discs is the CDI 605 with mouse, and a 525-line, 625-line or multistandard TV set (receiver or monitor) with RGB, Y/C or CVBS input.

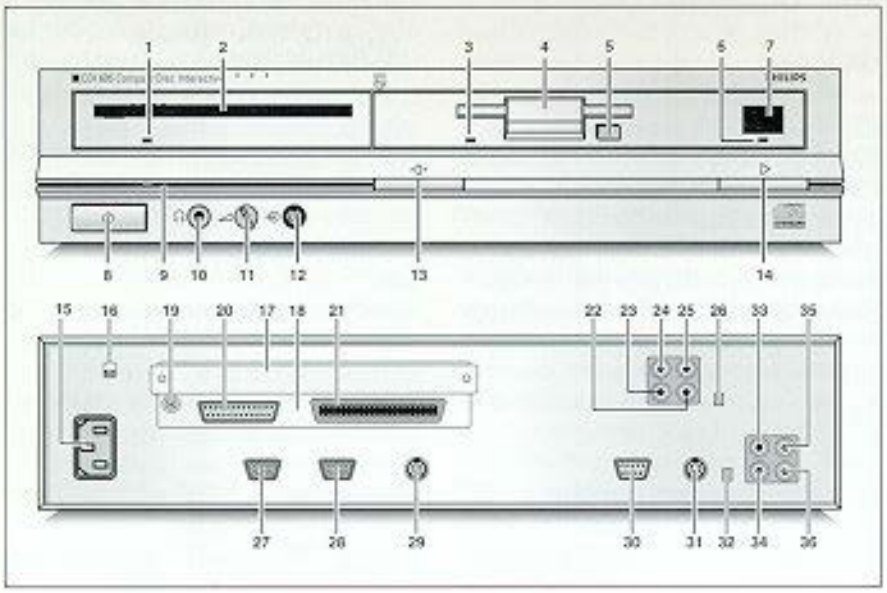
When stereo sound is important, e.g. for big-screen presentations, the stereo audio output can be connected directly to a stereo amplifier and loudspeakers. A headphone socket with volume control offers personal listening facilities.

Extension Facilities

In addition to the extension board fitted as standard, a second extension slot provides for further expansion of memory or communication facilities.

Through this Philips proprietary slot, various standard extensions are available. The CDI 605 full-motion video extension (service mounted) will also be implemented through this interface.

A wide variety of customised plug-in interface cards can be made available for interfacing with other equipment and systems. Full information about extension card facilities is available on request.



CDI 605 FRONT PANEL

1. "Reading Disc" LED.
2. Caddy loading slot
3. Floppy disc drive LED
4. Floppy disc drive
5. Floppy disc drive eject button
6. Remote control LED
7. Infra-red sensor
8. Power On/Off key
9. Power On LED
10. Headphone socket
11. Headphone volume control
12. Dedicated I/O port for CD-I pointing devices
13. "Return to zero" key. Returns to the main menu in CD-I applications; stops play but remains "in menu" for CD-DA discs (i.e. play is resumed at the beginning of the same track)
14. Start/Play key

CDI 605 REAR PANEL

15. Power connector
16. Voltage selector 110/220-240V
17. Extension slot 2
18. Extension slot 1
    Including extension board with additional RAM, SCSI. port, Parallel port and Ethernet
19. Ethernet (thin wire) port
20. Parallel port - printer interface with PC-AT functionality. With dedicated software, can be used as general-purpose I/O port
21. SCSI port - an interface for all SCSI-1 (8-bit based) devices. Depending on the resident software, can serve as master or slave.

Emulator interface incorporating:

22. Remote internal/external inter face control
23. Digital Out
24. RS Out for external drive control
25. Clock
26. Switch internal/external inter face control
27. Default I/O port for terminal. For RS232-based extensions e.g. modem
28. I/O port for RS232-based general peripherals/extensions
29. I/O port for CD-I pointing devices, CD-I keyboard or other RS232-based extensions e.g. printer
30. RGB connector
31. Y/C connector
32. 525/625 line selector
33. Audio L channel connector
34. Audio R channel connector
35. CVBS connector
36. IR Remote control bus connector

TECHNICAL DATA CONNECTIONS

Audio

L + R: (Cinch) 2Vrms typical 10k Ohm
Headphone: (6mm headphone socket) 8 Ohm-2k Ohm, 30 mW at 32 Ohm.
Manual volume control.

Video

NTSC and PAL video in:
- -RGB (D-sub 9 plug) 1 Vpp in 75 Ohm
- -Y/C (Y/C connector) 1 Vpp in 75 Ohm
- -CVBS (Cinch) 1 Vpp in 75 Ohm

Control ports

Port 1 (Mini DIN 8-pin A), pointing device
Port 2 (Mini DIN-8pin A), pointing device or CD-I keyboard
Port 3 (D- sub 9 plug), RS232 based peripheral
Port 4 (D- sub 9 plug), RS232 based peripheral

Optional

Infra-red remote control Wired remote control via infra-red eye

Memory (Base Case)

1 MByte RAM
8 KB non-volatile RAM

Personal Memory Device

Floppy disc drive

Power supply

100-120V and 220-240V ± 10% selectable. Power consumption approx. 3.5W

Approvals

FCC; UL; IEC 950
Conforms with VDE, FTZ, CSA, Nordic, U.S. and German Laser safety regulations
MTFB: 35000 hrs.

Dimensions (w x h x d)

- 420 x 90 x 400 mm
- 16.5 x 3.5 x 15.7 in.

Weight (approx.)

- 7kg
- 15.4lbs

EMULATOR INTERFACE:

RS (Cinch) for commands to external drive(s) or emulator.
DO (Cinch) digital input from external drive(s) or emulator.
SWITCH (Cinch) for internal/external interface control.
CLOCK (Cinch) for digital clock output signal.

EXTENSION (fitted) includes:

MEMORY: 4MB extended RAM.
PARALLEL PORT: Centronics compatible (D-sub 25 connector) for printer. With dedicated software, can be used as general-purpose I/O port.
SCSI PORT: (Microribbon 50 connector) for all SCSI-based devices. Dependent on resident software, can serve as master or slave.
ETHERNET PORT: IEEE 802.3 standard (BNC connector) for connection to thin-wire based LANs.

EXTENSION SLOT:

One general slot for additional system extensions, including Full-motion Video when released.

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