

ANNEX

Typical Specifications of a DVD-ROM Drive (16X Drive)

- Medium Format
 - DVD-ROM disc: Conforms to the DVD Book Version 1.0 Standards.
 - Supported formats: Single Layer, Dual layer, DVD-R (disc at once and multi border) and DVD-RW.
 - CD-ROM disc: Conforms to the Yellow Book (ISO/IEC10149), Red Book (IEC908 and system Description CD-ROM XA) CD standards.
 - Supported formats: CD-DA, CD-ROM Model, CD-ROM XA Mode2 Form 1, CD-ROM XA Mode2 Form 2, Photo CD (Single and Multiple session), CD-Extra, CD-R and CDR-RW (supports AM2)

- Disc size:
 - 120 mm (5-inch)
 - 80 mm (3.5-inch)

- Data Transfer Rate

Sustained:
DVD (6.6-16X CAV mode):
Minimum: 8910 KB/second
Maximum: 21600 KB/seconds
CD-Rom (17.2-40S CAV mode, 16 Kbytes or greater block transfers):
Minimum: 2586 KB/second
Maximum: 6000 KB/second
Burst Max:
16.6 Mbytes / second (PIO Mode 4)
33.3 Mbytes / second (Ultra DMA 66)

- Buffer Memory Size
 - 256 Kbytes

- Access Time / Seek Time

Access Time (Average):
DVD-ROM: 95 milliseconds (random average)
CD-ROM: 80 milliseconds (random average)
Random Seek Time (Average):
DVD-ROM: 85 milliseconds (random average)
CD-ROM: 70 milliseconds (random average)

Full Stroke Seek Time (Average):
DVD-ROM: 240 milliseconds (random average)
CD-ROM: 160 milliseconds (random average)

▪ Initialize / Start / Stop Time

- Disk Initializing Time is the length of time between disc spin-up and the drive reaching a pause on the first address after reading the TOC.
DVD-ROM Type: 5 seconds
CD-ROM Type: 8 seconds
- Startup Time (Spin Up) is the length of time between the spindle stop condition of the drive unit and unit pausing on the address of track number one (after initialization, in response to the host computer sending a start command to the drive).
DVD-ROM Type: 3 seconds (random average)
CD-ROM Type: 3 seconds (random average)
- Stop Time (Spin Down) is the length of time between a pause condition and the disc rotation stopped by the STOP command.
DVD-ROM Type: 5 seconds
CD-ROM Type: 5 seconds

▪ Loading / Unloading Time

Loading is the length of time between the push of disc into the slot and the clamping of the disc inside the drive.

Max: 3 seconds (includes disc camped indie drive)

Unloading is the length of time (after the eject button is pressed) from the drive pause from the slot eject.

Max: 4 seconds

▪ Audio Characteristics

Output Level:

Line out: 0.70 ± 0.1 Vrms (10k ohms load)

Headphone out: 0.60 ± 0.5 Vrms (32k ohms load)

S/N Ratio:

Line out: greater than 7 dB (JIS A-weighted; 2kHz LPF ON)

Frequency Response:

Line Out: 17 Hz ~ 20 kHz ± 2.5 dB

Channel Separation:

Line Out: >65 dB

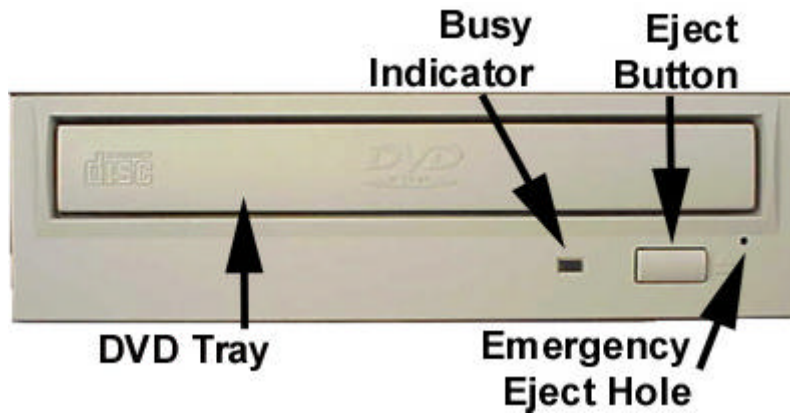
THD:

Line out: 0.1 maximum (1kHz 0 dB: 20 kHz LPF ON)

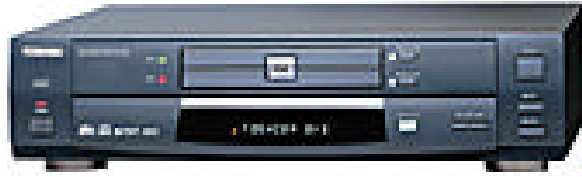
- Acoustic Noise

Without loading Operation: Maximum: 43dB(A)

FRONT PANEL OF DVD-ROM Drive



Typical Specifications of a DVD Player



VIDEO

- ColorStream® Component Video Output
- 10-bit 54MHz Video D/A Conversion with Super 4:4:4 Processing
- 3-D Digital Noise Reduction
- PLUGE
- Aspect Ratio Compensation
- 540 Lines Horizontal Resolution
- 10-bit Video DAC (Digital to Analog Converter)
- Video Black Level Expansion
- S-Video Output
- Composite Video Output
- Parallel Video Output

AUDIO

- Performance-Matched Audiophile-Grade Componentry
- DVD-Audio Decoding and Playback via 6 Channel Analog Outputs
- HDCD® Precision Filtering and Decoding
- 24-bit 192kHz PCM Audio Compatible
- CD-R Compatible
- Advanced Multiport Parallel Audio DAC System
- Multibit Delta Sigma Audio DACs
- Polypropylene Film Capacitors

- Direct Audio/Video On Mode
- Built-In Dolby® Digital Decoding with 5.1 Channel Analog Outputs
- Toslink Digital Audio Output
- One Pair of Analog Audio Outputs
- 24-bit PCM Audio Compatible (minimum 96kHz)
- Dolby® Digital & DTS® Compatible
- Coaxial Digital Audio Output
- Dynamic Range Control

FEATURES

- High-Mass Vibration-Resistant Cabinet
- DVD-Video/DVD-Audio/ VCD/CD/CD-R Playback
- DVD/CD Text Compatible
- Virtual Remote Control
- Quick Menu
- Angle Viewer
- Preview
- Strobe
- Picture Capture
- High-Mass Copper-Shielded Chassis
- First Setup Menu
- 4-Power Picture Zoom
- Parallel A/V Outputs
- X2 Playback
- x2, x8, x30 Forward and Reverse Scan
- 1/8, 1/4, 1/2 Slow Motion: Forward and Reverse
- DVD-Video/CD Playback

Annexe au
Doc. NC0389B1
Annex to

- Parental Lock
 - Time Search
 - Icon-Based On-Screen Displays
 - Bit-Rate Meter
 - Camera Angle Select
 - Multi-Language Select
 - Multi-Subtitle Select
 - Title Stop
 - Picture Set-up: Widescreen, Letterbox and Normal
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