

TOSHIBA

Toshiba SR-C8002 Product Specification

Cd-r/cd-rw drive

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STORAGE DEVICE DIVISION

SR-C8002 **TOSHIBA**

CD-R/CD-RW DRIVE

PRODUCT SPECIFICATION

MAY 2001

REV. 1.0

Specifications are subject to change without notice

DOCUMENT NUMBER

14708

TOSHIBA

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[CD/CDR Drive Toshiba XM-6802B User Manual](#)

Cd-rom drive (15 pages)

Summary of Contents for Toshiba SR-C8002

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STORAGE DEVICE DIVISION SR-C8002 CD-R/CD-RW DRIVE PRODUCT SPECIFICATION MAY 2001 REV. 1.0 Specifications are subject to change without notice DOCUMENT NUMBER 14708...

[Page 2: Limitation Of Liability](#)

Further, TOSHIBA disclaims all express warranties created by any individual or entity installing this device into a computer unless such express warranties are made with the prior express written consent of TOSHIBA or its authorized representatives.

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[Page 6: Introduction](#)

This document describes TOSHIBA's SR-C8002 CD-R/RW Drive. 2. Features SR-C8002 reads digital data stored on CD-ROM media and CD-Audio discs. The CD-ROM media has a 12 cm or 8 cm diameter. It typically contains approximately 600 MBytes or 200 MBytes of information respectively. (1 MByte=2 Bytes) This drive reads CD-ROM media at maximum 24 times faster rotational speed.

[Page 7: Specifications](#)

: Approx. 1,290-2,000 rpm (4-6X PCAV) : Approx. 1,290-2,000 rpm (4-6X PCAV) : Approx. 2,570-4,000 rpm (8-12X PCAV) : Approx. 1,700-3,960 rpm (8X CLV) : Approx. 850-1.980 rpm (4X CLV) 2/24 Byte, 1 MB=2 Byte, 1 KB=2 SR-C8002 Rev.1.0 Byte)

Page 8 4X-6X PACV 684.4-1,026.6 KByte/s 16.7 MByte/s (PIO Mode 4) 16.7 MByte/s (Multi word DMA transfer mode-2) 120 ms Typ (10.3-24X) 105 ms Typ (10.3-24X) 170 ms Typ (10.3-24X) 2.0 s Typ (10.3-24X) 2 MByte 3/24 Byte=1,048,576 Bytes SR-C8002 Rev.1.0...

[Page 9: Environmental Conditions](#)

(7) Operating Humidity (8) Storage Humidity (9) Shipping Humidity (10) Wet bulb Maximum Temperature (11) Condensation *1: Except for disc *2: Packed in Toshiba original shipping package. 3.2.2.Dust and Dirt Manual Release: (a) Electrical Release (Release Button) (b) Release by ATAPI command...

[Page 10: Vibration](#)

[100 G] (Half sine wave 3 ms) no damage ----- 1 drop at 0.4 m (Bottom side only) 0.6 m drops once for each 6-surface, 1-edge and 1-corner 5/24 ----- 0-p) 0-p) (0-p) X Y Z/30 min each SR-C8002 Rev.1.0...

[Page 11: Installation Conditions](#)

(3) Care should be especially paid for the heat effect. Keep the air ventilation and isolate from heat of the environmental condition. Then, install the equipment where the environmental temperature at the bottom center of cabinet does not exceed 50 Figure 1 Mounting angle 6/24 SR-C8002 Rev.1.0...

[Page 12: Dimensions And Mass](#)

(1) External Dimensions (W x H x D) (2) Mass 0.5 N Do not add the force 128 mm x 12.7 mm x 126.1 mm (excluding bezel) 0.24 kg (Net) 13.9 kg (Bulk Packaged 50 pcs) 5.7 kg (Bulk Packaged 20 pcs) 7/24 SR-C8002 Rev.1.0...

Page 13 (Unit: mm) Figure 3 External Dimensions 8/24 SR-C8002 Rev.1.0...

[Page 14: Reliabilities](#)

20 % of Power On Time (Reading/Seeking) 2 % of Power On Time (Writing/Seeking) 0.5 h 15,000 h or 5 years (earlier one) 10,000 times or more 500 times or more Semiconductor Laser Brushless DC Motor DC Motor 9/24 SR-C8002 Rev.1.0...

Page 15 BUS Control Clock Figure 4 Configuration 10/24 SR-C8002 Rev.1.0...

[Page 16: Functions](#)

2048 bytes in Mode-1 2336 bytes in Mode-2 Block 2 ECC (Mode-1) approx. 288 bytes 300 k-Blocks Lead out Synchronization Frame 11/24 Minutes Second(0~59) 4 bytes Blocks(0~74) Mode (4 bit) (8 bit) (8 bit) (8 bit) (14 bit) SR-C8002 Rev.1.0...

[Page 17: Power On/Off Timing](#)

"Command" Receivable Max 3.5 s Max 30s, Typ 12 s (Single Session Disc) "Check Condition" Status Figure 7 Initialization Sequence 12 mA 8 mA Table 1 Cable parameters 12/24 "Read-Command" Acceptable "Good" Status 0.46 m -400 μ 25 pF SR-C8002 Rev.1.0...

[Page 18: Signal Summary](#)

0.8 V /HWR, /HA0-2, Pullup Resistor(Ri) /HDAK Rx=infinity 15 pF Rs=120 OHM /HRD Rx=10 kOHM Rs=82 OHM /HCS1,/HCS3 0.6 V 15 pF SR-C8002 Rev.1.0 NOTE Rs1=0 OHM Rs2=33 OHM HD0-HD15 Rx=10 kOHM Rs1=0 OHM Rs2=0 OHM /PDIAG, /DASP /INTRQ /HDRQ...

[Page 19: Timing Of Host Interface \(Pio\)](#)

Addr valid to IOCS 16-assertion Addr valid to IOCS 16-negation DIOR/DIOW-to address valid hold Read Data Valid to IORDY active IORDY setup IORDY pulse wide Figure 9 Host Interface Timing (PIO Mode4) 14/24 Min Time (ns) Max Time (ns) 1250 SR-C8002 Rev.1.0...

[Page 20: Timing Of Host Interface \(Dma Multi\)](#)

DMACK to DIOR-/DIOW- setup DIOR-/DIOW- to DMACK hold DIOR- negated pulse width DIOW- negated pulse width DIOR- to DMREQ delay DIOR- to DMREQ delay Figure 10 Host Interface Timing (Multi Word DMA Mode 2) Min time (ns) 15/24 Max time (ns) SR-C8002 Rev.1.0...

[Page 21: Connector](#)

Figure 12 Signal assignments 16/24 BOTTOM Signal name Audio R-CH Ground DD10 DD11 DD12 DD13 DD14 DD15 DMARQ /DIOR: /HDMARDT: HSTROBE Ground /DMACK /IOCS16 /PDIAG /CS3FX +5 V(Motor) +5 V(Motor) +5 V(Logic) Ground Ground Ground Vender unique* SR-C8002 Rev.1.0...

[Page 22: Support Command List](#)

Mode Sense (10) Close Track / Session Read Buffer Capacity Send Cue Sheet Blank Send Event Play Audio (12) Set Read Ahead Read (12) Get Performance Set Streaming Read CD MSF SCAN Set CD Speed Mechanism Status Read CD 17/24 SR-C8002 Rev.1.0...

[Page 23: Power Requirements](#)

100 mV +5 V 40 mA 70 mA 620 mA (4-6X) 900 mA (10.3-24X) 600 mA (10.3-24X) 900 mA (10.3-24X) 950 mA (10.3-24X) 1,650 mA 760 mA (CD-R/RW) 820 mA (High Speed CD-RW) 18/24 Max. (p-p) Max. (p-p) SR-C8002 Rev.1.0...

[Page 24: Cd Audio](#)

Short-circuit the PIN 47 and PIN 48 of I/O connectors. 0.8 V (rms)+/-1 dB Unbalanced 47 kOHM min 20 Hz to 20 kHz+/-3.0 dB. (at 47 kOHM Load) 0.04 % Max. (at 1 kHz w/20 kHz LPF) 80dB Typ (IEC179 A-Weighted) 19/24 SR-C8002 Rev.1.0...

[Page 25: Busy Indicator](#)

0.4 s at the Release Light Off Figure 13 Idle Light Off Figure 14 No disc Light On Figure 15 Media Problem Figurer 16 CD-Audio playback Figurer 17 Data Access and Data Transfer Light Off Figurer 18 Release 20/24 SR-C8002 Rev.1.0...

[Page 26: Emergency Release](#)

: 1993 [1 A/m, 50 Hz] IEC61000-4-11 : 1994 [>95 % 0.5, 30% 25, >95 250] KOREAN EMC No. 13237 TAIWAN EMI CNS 13438 21/24 equipment Class B (including domestic environment Immunity characteristics Limits and methods of masurement] f: 5 kHz, Polarity: +/-] SR-C8002 Rev.1.0...

[Page 27: Electrostatic Discharge](#)

24 bulk packs on one pallet. * All transportation is allowed with pallet. (Transportation with bulk package is not allowed.) 24 bulk packs on one pallet. (Transportation with bulk package is allowed.) (Transportation with bulk package is allowed.) 22/24 SR-C8002 Rev.1.0...

[Page 28](#) Model: Options: Toshiba declares that the above mentioned product(s) with or without the listed options comply to the EU-Directives and standards as listed on page 2. Last

two digits of the year in which the CE mark affixed : 01...

[Page 29](#) 24/24 SR-C8002 Rev.1.0...

[Page 30](#) 4X-6X PACV 684.4-1,026.6 KByte/s 2.0 s Typ 5 C to 50 C *1: Except for disc *2:
Packed in Toshiba original ... 980 m/s [100 G] (Half sine wave 3 ms) (3) Care should be
especially... does not exceed 50 C.

[Page 31](#) (2) 58 Delete the No.22 and No.39 40 mA 70 mA 620 mA (4-6X) 900 mA (10.3-24X)
600 mA (10.3-24X) 900 mA (10.3-24X) 950 mA (10.3-24X) 1,650 mA 760 mA (CD-R/RW) 820 mA
(High Speed CD-RW) Delete the TBD SR-C8002 Rev.1.0...