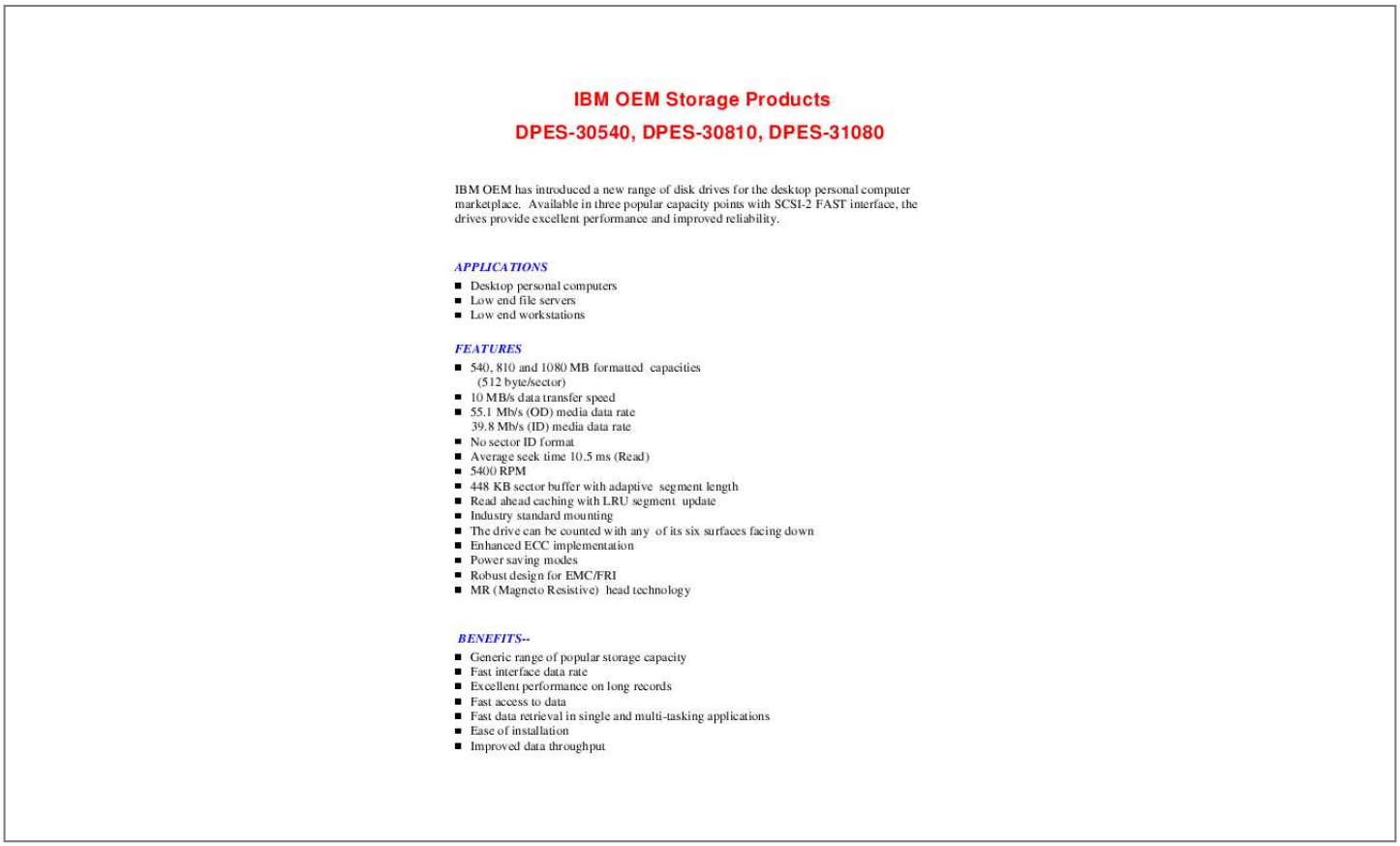

IBM OEM Storage Products

DPES-30540, DPES-30810, DPES-31080

IBM OEM has introduced a new range of disk drives for the desktop personal computer marketplace. Available in three popular capacity points with SCSI-2 FAST interface, the drives provide excellent performance and improved reliability.

APPLICATIONS

- Desktop personal computers
- Low end file servers
- Low end workstations

FEATURES

- 540, 810 and 1080 MB formatted capacities (512 byte/sector)
- 10 MB/s data transfer speed
- 55.1 Mb/s (OD) media data rate
  39.8 Mb/s (ID) media data rate
- No sector ID format
- Average seek time 10.5 ms (Read)
- 5400 RPM
- 448 KB sector buffer with adaptive segment length
- Read ahead caching with LRU segment update
- Industry standard mounting
- The drive can be counted with any of its six surfaces facing down
- Enhanced ECC implementation
- Power saving modes
- Robust design for EMC/FRI
- MR (Magneto Resistive) head technology

BENEFITS--

- Generic range of popular storage capacity
- Fast interface data rate
- Excellent performance on long records
- Fast access to data
- Fast data retrieval in single and multi-tasking applications
- Ease of installation
- Improved data throughput

Manual abstract:

@@Other electrical contact may degrade error rate performance. As a result of this it is recommended that there should be no metal contact to the hard disk drive except at the mounting holes or the side rails into which the mounting holes are tapped. OPTION BLOCK Jumper Setting Jumper position and function are as shown below. Pin pitch is 2 mm. The jumpers control SCSI Device ID, Auto Spin Up, Unit Attention, SCSI Terminator Connection, and Target Initiated Synchronous Negotiation. Disable Unit Attention Disable TI Negotiation Device ID JP1 1 2 JP2 3 4 JP3 5 6 JP4 7 8 JP5 9 10 JP6 11 12 JP7 13 14 Disable Auto Spin-up Enable Terminator Notes: 1. The jumper position of JP1, 2, and 3 define SCSI ID of the drive If JP1,JP2,JP3 are Off,Off,Off the SCSI ID is 0 (shipping default) If JP1,JP2,JP3 are On,Off,Off the SCSI ID is 1 If JP1,JP2,JP3 are Off,On,Off the SCSI ID is 2 If JP1,JP2,JP3 are On,On,Off the SCSI ID is 3 If JP1,JP2,JP3 are Off,Off,On the SCSI ID is 4 If JP1,JP2,JP3 are On,Off,On the SCSI ID is 5 If JP1,JP2,JP3 are Off,On,On the SCSI ID is 6 (set at shipping) If JP1,JP2,JP3 are On,On,On the SCSI ID is 7 2. If JP4 is Off, the drive will spin up automatically after power on reset. If JP4 is On, the drive will not spin up unless the host system issues a start command to the drive with the start bit set to one. 3.
If JP5 is On, Unit Attention after power on reset or SCSI bus reset is disabled. 4. If JP6 is On, the internal SCSI active terminator works. 5. If JP7 is On, Target Initiated Synchronous Negotiation is disabled, and then the Initiator is required to start a negotiation handshake if Synchronous SCSI transfers are desired.
DEFAULT SETTING The default jumper setting at shipment is as follows. OPERATING ENVIRONMENT Operating Conditions Temperature 5 to 55 degrees C Relative Humidity 8 to 90% non-condensing Maximum Wet Bulb Temperature 29.4 degrees C non-condensing Maximum Temperature Gradient 15 C/Hour Altitude -300 to 3048m Non-Operating Conditions Temperature -40 to 65 degrees C Relative Humidity 5 to 95% non-condensing Maximum Wet Bulb Temperature 35 degrees C non-condensing Maximum Temperature Gradient 15 C/Hour Altitude -300 to 12,000m Note* The system is responsible to provide sufficient air movement to maintain surface temperature below 60 C at the center of top cover of the drive. Operating Shock The hard disk drive meets the following criteria while operating in respective conditions described below. @@@@@@@@@@@@There is no special power on/off sequencing required. @@(2) The maximum ripple is measured at input of the drive. @@@@@@@@@@@@@@Refer to the DPES-3XXXX Interface Specification for a detailed definition of Mode Select parameters. The changeable parameters are: Page 0 Vendor Unique Parameters UQE - Untagged Queuing Enable (1) DWD - Disable Write Disconnect (0) UAI - Unit Attention Inhibit (0) ASDPE - Additional Save Data Pointer Enable (0) CMDAC - Command Activated (LED) (0) RPFAE - Report Failure Analysis Error (0) CPE - Concurrent Processing Enable (1) TCC - Thermal Compensation (0) DSN - Disable Target Initiated Synchronous Negotiation (0) FRDD - Format Degraded (1) DPSDP - Data Phase Save Data Pointer (0) CAEN - Command Age Limiter Enable (1) LITF - Idle Time Function (0) ADC - Adaptive Cache Enable (1) QEMC - Queue Error Management Control (0) DRD - Disable Read Disconnect (1) LED - Not supported (0) Command Aging Limit (48) DRRT - Disable Read Reassign Target (0) DNR - Disable Nested Reassigns (1) Page 1 Read-Write Error Recover Parameters AWRE - Automatic Write Reallocation Enable (1) ARRE - Automatic Read Reallocation Enable (1) TB - Transfer Block (0) PER - Post Error (0) DTE - Disable Transfer on Error (0) DCR - Disable Correction (0) Read Retry Count (01h) Write Retry Count (01h) Page 2 Disconnect/Reconnect Parameters Read buffer Full Ratio (00h) Write Buffer Empty Ratio (00h) Page 7 Verify Error Recovery Parameters PER (0) DCR (0) Verify Retry Count (01h) Page 8 Caching Parameters WCE - Write Cache Enable (1) RCD - Read Cache Disable (0) MF - Multiplication Factor (0) Disable Pre-Fetch Transfer Length (0) Minimum Pre-Fetch (0) Maximum Pre-Fetch (0) Maximum Pre-Fetch Ceiling (0) Number of Cache Segments (7) Page A Control Mode Page Parameters Queue Algorithm Modifier (0) QErr - Queue Error (00h) DQue - Disable Queing (0) Page 0D Power Condition Standby (0) Standby Timer (00h) Note: (xx) default options at Shipment MECHANICAL DATA Dimensions Height 25.4 +/-0.4 mm Width 101.6 +/-0.4 mm Depth 146.0 +/-0.6 mm Weight 530 g maximum Mounting Orientation The drive can be mounted in any axis (6 directions) 146 /- 0 .4 +/- 0.*

6 101 .6 + 60. 3+ /-0 .2 41.6 (6x) UNC 6-32 (4X) UNC 6-32 2 Back Front 60.3 44.4 25.4+/-0.4 101.6 +/- 0.
4 LEFT FRONT The maximum allowable penetration of the mounting screws is (1) 3.5 mm (2) 6 mm ELECTROMAGNETIC COMPATABILITY 146 +/- 0.6 The drive meets the following EMC requirements when installed in the user system and exercised with a random accessing routine at maximum data rate: United States Federal Communication Commission (FCC) Rules and Regulations Part 15, Subject J - Computer Devices "Class B Limits". European Economic Community (EEC) directive #76/889 related to the control of radio frequency interference and the Verband Deutscher Elektrotechniker (VDE) requirements of Germany (GOP). AMP is a trademark of AMP Incorporated.
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Questions regarding IBM's warranty terms or methodology used to derive this data should be referred to your IBM OEM representative. Data subject to change without notice. WARNING: This disk drive can be damaged by Electro-Static Discharge, please follow recommended ESD procedures before unpacking or handling the drive. @@@@.