

Grand Prix™

Specifications

	Grand Prix	XP34301	XP32151
Form Factor		3.5 inch	
Height		1.6 inch	
Interface			
Fast SCSI-31		50-pin Connector ²	
Fast Wide Single-Ended SCSI-3		68-Pin Connector ²	
Fast Wide Differential SCSI-3		68-Pin Connector ²	
Fast Wide Single-Ended SCSI-3		80-Pin SCA	
Unformatted Capacity (MB)		5,238	2,619
Formatted Capacity ³ (MB)		4,300	2,150
Disk Drive Configuration			
Disks		10	5
Heads/Recording Surfaces		20	10
Tracks per Surface		4,066	
Sectors per Track (max)		118	
Bytes per Sector ⁴		512	
Track Density (tpi)		4,000	
Recording Density (bpi)		79,600	
Encoding Method		PRML 0,4,4	
Performance Specifications			
Typical Seek Times ⁵ (ms)			
Average Seek (read)		8.6	
Average Seek (write)		10.6	
Full Stroke		16.0	
Internal Data Rate (Mb/sec)		46.7 to 77.6	
Data Transfer Rates (Buffer-to-Host)			
Fast SCSI-3 (MB/sec)		10	
Fast Wide SCSI-3 (MB/sec)		20	
Ultra SCSI-3 (MB/sec)		20	
WideUltra SCSI-3 (MB/sec)		40	
Rotational Speed (RPM)		7,200	

Average Rotational Latency (ms)	
Without ORCA	4.17
With ORCA	3.34
Command Overhead	
Sequential Reads/Writes (μs)	150
Buffer Size ⁶ (KB)	512

Reliability Specifications

Projected Field MTBF (hours)	800,000
Preventative Maintenance	Not Required
Data Errors (bits per read)	
Recoverable	1 in 10 ¹⁰
Nonrecoverable	1 in 10 ¹⁴
Error Correction Method	Reed Solomon
Warranty ⁷ (years)	5

Physical Specifications

Dimensions—inches (mm)		
Width	4.0 (101.6)	
Length	5.75 (146.1)	
Height	1.63 (41.4)	
Weight—pounds (kg)	2.2 (1.0)	1.78 (0.8)

Environmental Limits

Operating	
Temperature (°C)	0 to 55
Non-Condensing Humidity (%)	5 to 85
Maximum Wet Bulb (°C)	26
Shock (G, 11ms)	10
Vibration (G, base-to-peak)	0.5
Non-Operating	
Temperature (°C)	-40 to 75
Non-Condensing Humidity (%)	5 to 95
Maximum Wet Bulb (°C)	40
Shock (G, 11ms)	60
Vibration (G, base-to-peak)	2.0

Power Specifications

Power Requirements		
+5V DC ±5% (A, typ)	0.72	0.72
+12V DC ±5% (A, typ)	0.87	0.53

+12V DC (A, max)	3.0	2.0
Power Draw (W, Idle)	14	10

1. SCSI-3 SPI compliant.

2. Also available in Ultra SCSI-3.

3. Quantum defines a megabyte (MB) as 10^6 or 1,000,000 bytes.

4. Other sector sizes available.

5. Seek times are at nominal environmental conditions and include settling.

6. 128 KB used for firmware.

7. This warranty is standard for distributors, OEMs, and end users.