

## Fireball™ ST

### Specifications

Fireball ST	1.6	2.1	3.2	4.3	6.4
Form Factor	3.5 inch (low profile)	3.5 inch (low profile)			
Interfaces	Ultra ATA	Ultra ATA Ultra SCSI-3	Ultra ATA Ultra SCSI-3	Ultra ATA Ultra SCSI-3	Ultra ATA Ultra SCSI-3
Formatted Capacity (MB <sup>1</sup> )	1,614	2,151	3,228	4,310	6,448
<b>Disk Drive Configuration</b>					
Recording Surfaces	2	3	4	6	8
AT Logical					
Cylinders	3,128	4,092	6,256	14,848	13,328
Heads	16	16	16	9	15
Sectors	63	63	63	63	63
<b>Performance Specifications</b>					
Typical Seek Times <sup>2</sup> (ms)					
Average				<10	
Track-to-Track				2	
Full Stroke				20	
Average Rotational Latency (ms)				5.56	
Rotational Speed (RPM)				5,400	
Internal Data Rate (Mb/sec)				Up to 132	
Data Transfer Rates (Buffer-to-Host)					
ATA(MB/sec)					
PIO Mode 4				16.6	
DMA Mode 2				16.6	
Ultra DMA/33				33.3	
Ultra SCSI-3 (Mb/sec)				20	
Buffer Size (KB)				128	
Typical Power On to Drive Ready (sec)				15	
<b>Reliability Specifications</b>					
Projected Field MTBF (hrs)				400,000	
Start/Stop Cycles (Ambient)				40,000	
Nonrecoverable Data Errors (per bits read)				<10 per 10 <sup>15</sup>	
Warranty <sup>3</sup> (years)				3	
<b>Physical Specifications</b>					
Dimensions - inches (mm)					

Width	4.00 (101.6)
Length	5.75 (146.1)
Height	1.00 (25.4)
Weight - pounds (kg)	<1.2 (<0.55)

**Environmental Limits**

Operating	
Temperature (oC)	5 to 55
Non-Condensing Humidity (%)	5 to 85
Shock (G, 11 ms)	10
Vibrations (G, 5 to 400 Hz, peak-to-peak)	1
Altitude (ft.)	-650 to 10,000
Non-operating	
Temperature (oC)	-40 to 65 .
Non-Condensing Humidity (%)	5 to 95
Shock (G, 11 ms)	70
Vibrations (G, 5 to 500 Hz, peak-to-peak)	2
Altitude (ft.)	-650 to 40,000
Idle Sound (typ) (Quantum Fireball ST 6.4)	
Pressure (dBA)	32
Power (bels)	3.8

**Power Specifications**

Nominal Voltage (V)	+5/+12
Voltage Margin (%)	±5/±10
Typical Power Draw (W) (Quantum Fireball ST 6.4)	
Standby/Sleep	1.0
Idle	6.0
Operating <sup>4</sup>	11.0
Peak Current (mA on +5V/+12V)	700/1,700

1. Quantum defines a megabyte (MB) as  $10^6$  or 1,000,000 bytes.
2. Seek times are at nominal conditions and include settling.
3. This warranty is standard when products are purchased directly through authorized Quantum distributors/dealers. Unless otherwise agreed, a one-year warranty is provided to all OEMs purchasing directly from Quantum. End-user warranties provided by computer manufacturers may vary.
4. Operating is defined as 40% seeking, 30% reading, 10% writing, and 20% idle.