

Chapter 1

ABOUT THIS MANUAL

This chapter gives an overview of the contents of this manual, including the intended audience, how the manual is organized, terminology and conventions, and references.

1.1 AUDIENCE DEFINITION

The Quantum Fireball TM™1080/1280/1700/2110/2550/3200/3840AT Product Manual is intended for several audiences. These audiences include: the end user, installer, developer, original equipment manufacturer (OEM), and distributor. The manual provides information about installation, principles of operation, interface command implementation, and maintenance.

1.2 MANUAL ORGANIZATION

This manual is organized into the following chapters:

- Chapter 1 – *About This Manual*
- Chapter 2 – *General Description*
- Chapter 3 – *Installation*
- Chapter 4 – *Specifications*
- Chapter 5 – *Basic Principles of Operation*
- Chapter 6 – *IDE Bus Interface and ATA Commands*

1.3 TERMINOLOGY AND CONVENTIONS

In the Glossary at the back of this manual, you can find definitions for many of the terms used in this manual. In addition, the following abbreviations are used in this manual:

- ASIC application-specific integrated circuit
- ATA advanced technology attachment
- bpi bits per inch
- dB decibels
- dBA decibels, A weighted
- ECC error correcting code
- fci flux changes per inch
- Hz hertz

- KB kilobytes
- LSB least significant bit
- mA milliamperes
- MB megabytes (1 MB = 1,000,000 bytes when referring to disk storage and 1,048,576 bytes in all other cases)
- Mbit/s megabits per second
- MB/s megabytes per second
- MHz megahertz
- ms milliseconds
- MSB most significant bit
- mv millivolts
- ns nanoseconds
- tpi tracks per inch
- μ s microseconds
- V volts

The typographical and naming conventions used in this manual are listed below. Conventions that are unique to a specific table appear in the notes that follow that table.

Typographical Conventions:

- **Names of Bits:** Bit names are presented in initial capitals. An example is the Host Software Reset bit.
- **Commands:** Firmware commands are listed in all capitals. An example is WRITE LONG.
- **Register Names:** Registers are given in this manual with initial capitals. An example is the Alternate Status Register.
- **Parameters:** Parameters are given as initial capitals when spelled out, and are given as all capitals when abbreviated. Examples are Prefetch Enable (PE), and Cache Enable (CE).
- **Hexadecimal Notation:** The hexadecimal notation is given in 9-point subscript form. An example is 30_H.
- **Signal Negation:** A signal name that is defined as active low is listed with a minus sign following the signal. An example is RD₋.
- **Messages:** A message that is sent from the drive to the host is listed in all capitals. An example is ILLEGAL COMMAND.

Naming Conventions:

- **Host:** In general, the system in which the drive resides is referred to as the host.
- **Computer Voice:** This refers to items you type at the computer keyboard. These items are listed in 10-point, all capitals, Courier font. An example is `FORMAT C: /S.`

1.4 REFERENCES

For additional information about the AT interface, refer to:

- IBM Technical Reference Manual #6183355, March 1986.
- ATA Common Access Method Specification, Revision 4.0.

