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Digital Semiconductor AlphaPC 164 Motherboard Design Kit

Read Me First

Order Number: EC–QPFZA–TE

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Preliminary Information

ALPHA ™
GENERATION

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1 AlphaPC 164 Motherboard Design Kit Introduction

The AlphaPC 164 motherboard design kit (PN QR–21A04–12) is a collection of development and evaluation files and drawings, which introduces you to the Digital Semiconductor 21164 Alpha microprocessor and the companion Digital Semiconductor 21172 core logic chipset. The kit is intended to help you understand more about designing the chips into your products.

This document lists the contents of the AlphaPC 164 motherboard design kit. It is intended for users of the AlphaPC 164 motherboard design kit to help them assess the contents of the kit and the files on the design database diskettes.

1.1 AlphaPC 164 Motherboard Design Kit Contents

The AlphaPC 164 motherboard design kit contains the following:

- The Evaluation Board Software Developer's Kit and Firmware Update V2.1 (EBSDK) on CD–ROM (PN AG–QUTVB–BE). This kit contains the *Alpha Microprocessors Evaluation Board Software Design Tools User's Guide* (PN EC–QHUWB–TE).

- The AlphaPC 164 motherboard design database on five 3.5-inch diskettes.

- The AlphaPC 164 motherboard documentation set.

Note: Operating systems, such as Windows NT and Digital UNIX, are not included and must be purchased separately.

1.2 Documentation Provided

The following documentation is provided in the AlphaPC 164 motherboard design kit:

Title	Order Number
Alpha AXP Architecture Handbook	EC–QD2KA–TE
Digital Semiconductor AlphaPC 164 Motherboard Product Brief	EC–QUQKA–TE
Digital Semiconductor AlphaPC 164 Motherboard Digital UNIX Product Brief	EC–QZT6A–TE
Digital Semiconductor AlphaPC 164 Motherboard Digital UNIX Product Brief	EC–QZT6A–TE
Digital Semiconductor AlphaPC 164 Motherboard Technical Reference Manual	EC–QPFYA–TE
Digital Semiconductor AlphaPC 164 Motherboard Design Kit Read Me First	EC–QPFZA–TE
Digital Semiconductor 21164 (366 MHz Through 433 MHz) Alpha Microprocessor Data Sheet	EC–QP98A–TE
Digital Semiconductor 21164 (366 MHz Through 433 MHz) Alpha Microprocessor Hardware Reference Manual	EC–QP99A–TE
Digital Semiconductor 21172 Core Logic Chipset Product Brief	EC–QUQHA–TE
Digital Semiconductor 21172 Core Logic Chipset Technical Reference Manual	EC–QUQJA–TE

2 AlphaPC 164 Motherboard Design Database

This section lists the AlphaPC 164 motherboard design database contents. It also describes how to unpack the AlphaPC 164 motherboard design database from the diskettes.

2.1 Contents

The AlphaPC 164 motherboard design database is provided on five 3.5-inch diskettes. The database media includes:

- Viewlogic design database files
- Vendor's parts list
- Schematics in PostScript files
- Board fabrication data
- Application notes

Note: Regardless of how you access the design database, you must have a Viewlogic Powerview 5.1 (or later) license to use it.

2.2 Copying and Unpacking the Hardware Design Database from the Diskettes

The five 3.5-inch diskettes that contain the hardware design database files were archived using a public-domain compression utility. Each zip archive includes a category of design database files, which are described in the following table. You can access and read these files on an industry-standard personal computer with a 3.5-inch diskette drive. Use `unzip.exe` (included on each diskette) to unpack the files in each archive.

Files on the Diskettes

The hardware design database diskettes contain the following files:

Archive Name	Archive Contents
Diskette 1—PN AK–QWCJA–CA	
readme.txt	This file
unzip.exe	File decompression utility
pc164.zip	The complete Viewlogic database (schematics, symbols, JEDEC files, and so forth) for the AlphaPC 164 motherboard — when unzipping this file, use the -d switch to preserve the directory structure.
Diskette 2—PN AK–QWCKA–CA	
readme.txt	This file
unzip.exe	File decompression utility
24742c.zip	Data needed by the etch vendor (Gerber files, drill files, and so forth)
24742kpl.zip	Parts list
24742wr.zip	Wire list
24742sp.zip	Gerber files used for the solder stencil – side 1 and 2
24742ven.zip	Vendor bill of materials
24742ocf.zip	Onsertion file
Diskette 3—PN AK–QWCLA–CA	
readme.txt	This file
unzip.exe	File decompression utility
24742dxf.zip	DXF files for the UA, MD, and solder paste
pc164aps.zip	A-size PostScript files for the schematics
Diskette 4—PN AK–QWCMA–CA	
readme.txt	This file
unzip.exe	File decompression utility
24742bps.zip	B-size PostScript files for the UA, MD, and solder paste
Diskette 5—PN AK–R18AA–CA	
readme.txt	This file
unzip.exe	File decompression utility
2v2vdoc.zip	5-Volt to 2.5-Volt dc-to-dc convertor for 21164 microprocessor Microsoft Word format