## Legal Notice

This CD contains documentation and other information related to products and services of Altera Corporation ("Altera") which is provided as a courtesy to Altera's customers and potential customers. By copying or using any information contained on this CD, you agree to be bound by the terms and conditions described in this Legal Notice.

The documentation, software, and other materials contained on this CD are owned and copyrighted by Altera and its licensors. Copyright © 1994, 1995, 1996, 1997, 1998 Altera Corporation, 101 Innovation Drive, San Jose, California 95134, USA and its licensors. All rights reserved.

Acrobat\* Reader Copyright © 1987-1998 Adobe Systems Incorporated. All rights reserved. Adobe and Acrobat are trademarks of Adobe Systems Incorporated which may be registered in certain jurisdictions.

You are licensed to download and copy documentation and other information from this CD provided you agree to the following terms and conditions: (1) You may use the materials for informational purposes only. (2) You may not alter or modify the materials in any way. (3) You may not use any graphics separate from any accompanying text. (4) You may distribute copies of the documentation available on this CD only to customers and potential customers of Altera products. However, you may not charge them for such use. Any other distribution to third parties is prohibited unless you obtain the prior written consent of Altera. (5) You may not use the materials in any way that may be adverse to Altera's interests. (6) All copies of materials that you copy from this CD must include a copy of this Legal Notice.

ACAP, ACCESS, Altera, AMPP, APEX, ASCEND, BitBlaster, ByteBlaster, Classic, ClockBoost, ClockLock, EPF10K250A, EPF10K250B, EPF10K180B, EPF10K130V, EPF10K130B, EPF10K100, EPF10K100A, EPF10K100B, EPF10K100B, EPF10K50, EPF10K50, EPF10K50V, EPF10K40, EPF10K30, EPF10K30B, EPF10K30A, EPF10K30A, EPF10K10, EPF10K10A, EPM9560, EPM9560A, EPM9480, EPM9480A, EPM9400, EPM9320, EPM9320A, EPF81500A, EPF818188A, EPF8820A, EPF8452A, EPF8282AV, EPF8282A, EPF6024A, EPF6016A, EPF6016, EPC1, EPC1441, EPC1213, EPC1064, EPC1064V, EPM71024A, EPM7512A, EPM7512A, EPM7384A, EPM7256S, EPM7256A, EPM77925A, EPM7192E, EPM7109E, EPM7106B, EPM7128S, EPM7128E, EPM7128A, EPM7096, EPM7064S, EPM7064, EPM7064A, EPM7032S, EPM7032A, EPM7032V, EPM5192, EPM5130, EPM5128, EPM5064, EPM5032, EP1810, EP9101, EP910, EP6101, EP610, FastFLEX, FastTrack Interconnect, FLEX, FLEX 10KA, FLEX 10KB, FLEX 8000, FLEX 8000A, FLEX 6000, Jam, MAX, MAX 9000, MAX 9000A, MAX 7000B, MAX 7000S, MAX 7000A, MAX 5000, MAX+PLUS, MAX+PLUS II, MegaCore, MultiVolt, OpenCore, OptiFLEX, Turbo Bit, µPitch are trademarks and/or service marks of Altera Corporation in the United States and other countries. Product design elements and mnemonics used by Altera Corporation are protected by copyright and/or trademark laws.

Altera Corporation acknowledges the trademarks of other organizations for their respective products or services mentioned in this document, including the following: Acugen is a registered trademark of Acugen Software, Incorporated. Aldec is a trademark of Aldec, Incorporated. Verilog is a registered trademark of Cadence Design Systems, Incorporated. Data I/O and FutureNet are registered trademarks and ABEL and ABEL-FPGA are trademarks of Data I/O Corporation. Exemplar Logic is a registered trademark of Exemplar Logic, Inc. Flynn Systems is a trademark of Flynn Systems Corp. GenRad is a trademark of GenRad, Inc. VeriBest is a registered trademark of VeriBest Incorporated. HP is a registered trademark of Hewlett-Packard Company. IBM and AT are registered trademarks and IBM PC-AT is a trademark of International Business Machines Corporation. ISDATA is a registered trademark of ISDATA GmbH. Logical Devices is a trademark of Logical Devices, Inc. Operation. MACH is a trademark of Advanced Micro Devices, Inc. X Windows System is a trademark of Massachusetts Institute of Technology. Mentor Graphics is a registered trademark of Mentor Graphics Corporation. Microsoft is a registered trademark and Windows is a trademark of Microsoft Corporation. MINC and PLDesigner are registered trademarks and PLDesigner-XL is a trademark of MINC Incorporated. Motif is a registered trademark of Open Software Foundation, Incorporated. OrCAD is a trademark of OrCAD Incorporated. CADAT, System Expert, and Visula are trademarks of Racal-Redac. pLSI and ispLSI are trademarks of SPARC International, Inc. and is licensed exclusively to Sun Microsystems, Inc. Sun and OpenWindows are trademarks of Sun Microsystems, Inc. Sun and OpenWindows are trademarks of Sun Microsystems, Inc. Synopsys is a registered trademark of Xilinx, Inc.

Altera reserves the right to make changes, without notice, in the devices or the device specifications identified in this document. Altera advises its customers to obtain the latest version of device specifications to verify, before placing orders, that the information being relied upon by the customer is current. Altera warrants performance of its semiconductor products to current specifications in accordance with Altera's standard warranty. Testing and other quality control techniques are used to the extent Altera deems such testing necessary to support this warranty. Unless mandated by government requirements, specific testing of all parameters of each device is not necessarily performed. In the absence of written agreement to the contrary, Altera assumes no liability for Altera applications assistance, customer's product design, or infringement of patents or copyrights of third parties by or arising from use of semiconductor devices described herein. Nor does Altera warrant or represent any patent right, copyright, or other intellectual property right of Altera covering or relating to any combination, machine, or process in which such semiconductor devices might be or are used.

Altera's products are not authorized for use as critical components in life support devices or systems without the express written approval of the president of Altera Corporation. As used herein:

- 1. Life support devices or systems are devices or systems that (a) are intended for surgical implant into the body or (b) support or sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury to the user.
- 2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

Products mentioned in this document are covered by one or more of the following U.S. patents: 5,705,939; 5,699,020; 5,699,312; 5,696,455; 5,693,540; 5,694,058; 5,691,653; 5,689,195; 5,668,771; 5,680,061; 5,672,985; 5,670,895; 5,659,717; 5,650,734; 5,649,163; 5,642,262; 5,642,082; 5,633,830; 5,631,576; 5,621,312; 5,614,840; 5,612,642; 5,608,337; 5,606,276; 5,606,266; 5,604,453; 5,598,109; 5,598,108; 5,592,106; 5,592,102; 5,590,305; 5,583,749; 5,581,501; 5,748,93; 5,572,717; 5,572,148; 5,572,067; 5,570,040; 5,567,177; 5,565,793; 5,563,592; 5,561,757; 5,557,217; 5,555,214; 5,550,842; 5,550,842; 5,5548,228; 5,543,732; 5,543,730; 5,541,530; 5,537,057; 5,525,917; 5,525,827; 5,523,706; 5,523,247; 5,517,186; 5,498,975; 5,498,182; 5,493,519; 5,490,266; 5,488,586; 5,487,143; 5,486,775; 5,485,103; 5,485,102; 5,483,178; 5,481,486; 5,477,474; 5,473,266; 5,463,328; 5,444,394; 5,332,940; 5,359,046; 5,350,954; 5,349,255; 5,341,308; 5,341,048; 5,341,044; 5,329,487; 5,317,212; 5,317,210; 5,315,172; 5,301,416; 5,294,975; 5,220,214; 5,200,920; 5,187,392; 5,166,604; 5,162,680; 5,144,167; 5,138,576; 5,128,565; 5,121,066; 5,111,423; 5,097,208; 5,091,661; 5,066,873; 5,045,772; 4,969,121; 4,930,107; 4,930,098; 4,930,097; 4,912,342; 4,903,223; 4,899,070; 4,899,067; 4,871,930; 4,864,161;

4.831,573; 4,785,423; 4,774,421; 4,713,792; 4,677,318; 4,617,479; 4,609,986; 4,020,469 and certain foreign patents.

U.S. and foreign patents pending.

