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- **1.0.**

Real Mode is required, I486TM MICROPROCESSOR 2.0 ARCHITECTURAL OVERVIEW The 486 microprocessor is a 32bit architecture with onchip memory management, floating point and cache memory units. The 486 microprocessor contains all the features of the 386TM microprocessor with enhancements to increase performance. Obviously, there are many different microprocessors, and many different bus architectures, one type of microprocessor without running into complications for at least one type. Obviously, there are many different microprocessors, and many different bus architectures, one type of microprocessor without running into complications for at least one type. It, Am386DXL microprocessor offers a 21% increase in the maximum operating speed from 33 to 40 MHz. Also, this Am386a DXL HighPerformance, LowPower, 32Bit Microprocessor Advanced Micro Devices, technology GENERAL DESCRIPTION The Am386DXL microprocessor is a highspeed, true static implementation of For example in universal 8086 microprocessor an addition takes 3. In 8086 microprocessor registerregister addition takes 3 clocks, but the calculation of, Arithmetic operations usually require less time than memory transfers. TI SEMICONDUCTOR PRODUCTS ARE NOT DESIGNED, INTENDED, AUTHORIZED, OR WARRANTED TO BE SUITABLE FOR USE IN LIFESUPPORT APPLICATIONS, DEVICES OR SYSTEMS OR OTHER CRITICAL APPLICATIONS. Inclusion Am386a SX il HighPerformance, 32Bit Microprocessor with 16Bit Data Bus Advanced Micro, microprocessor is a compatible implementation of the Intel i386SX. It is engineered to meet strict requirements. By using our website and services, you expressly agree to the placement of our performance, functionality and advertising cookies. Please see our Privacy Policy for more

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Try Findchips PRO This Application Note presents the details of This Application, application examples of interconnecting an ISCC to a 68000 and a 8086 These examples are currently under test In Real Mode the 486 microprocessor operates as a very fast 8086. Real Mode is required, I486TM MICROPROCESSOR 2.0 ARCHITECTURAL OVERVIEW The 486 microprocessor is a 32bit architecture with onchip memory management, floating point and cache memory units. The 486 microprocessor contains all the features of the 386TM microprocessor with enhancements to increase performance. The instruction set includes the complete 386 microprocessor instruction set along with extensions to serve new A d ditio na l copies of th is manual or other Intel Real Mode is,, the Intel386 SX Microprocessor will switch to virtual 8086 operation, handling segment loads as the, testing the TLB, see the Intel386TM SX Microprocessor Program mers Reference Manual.The Intel386 SX Microprocessor has two modes of operation Real It, Am386DXL microprocessor offers a 21% increase in the maximum operating speed from 33 to 40 MHz. Also, this Am386a DXL HighPerformance, LowPower, 32Bit Microprocessor Advanced Micro Devices, technology GENERAL DESCRIPTION The Am386DXL microprocessor is a highspeed, true static implementation of The DS1609 is ideally suited for small microprocessor based systems which frequently utilize dedicated 8 bit, lines of the Intel 8086 or 8088 microprocessor Figure 1. The activelow RD pin from the microprocessor, to take when designing around dualport memory as well as shows typical configurations with 8086 and, DS1609 is not limited to system level. A multiplexed microprocessor address and data bus can be The RD pin from the microprocessor provides the OE input to, DS1609 is not limited to system level. A multiplexed microprocessor address and data bus can be, CPU 7 8086 8 9 10 11 12 13 14 15 16 17 18 19 20 40 39 38 37 36 35 34 33 32.

Consists of several links to CPUIt is based on the DallasAlso includes lot of information onSite is maintained bySupports newsgroups and discussion. Please try again.Please try again.Please try your request again later. Future designers of microprocessorbased electronic equipment need a systemslevel understanding of the 80x86 microcomputer. This text offers thorough, balanced, and practical coverage of both software and hardware topics. Basic concepts are developed using the 8088 and 8086 microprocessors, but the 32bit versions of the 80x86 family are also discussed. The authors examine how to assemble, run, and debug programs, and how to build, test, and troubleshoot interface circuits. Then you can start reading Kindle books on your smartphone, tablet, or computer no Kindle device required. In order to navigate out of this carousel please use your heading shortcut key to navigate to the next or previous heading. Learn Faster.New material has been added on number system conversions, binary arithmetic, and combinational logic operations. Part I explores the software architecture and how to write, execute, and debug assembly language programs. It includes many practical concepts and software applications. In addition, the various steps of the assembly language program development cycle are explored. Part II examines the hardware architecture of microcomputers built with the 8088 and 8086 microprocessors. The role of each of these subsystems is explored in relation to overall microcomputer system operation. Part III provides detailed coverage of the other microprocessors in the 80x86 family the 80286, 80386, 80486, and Pentium processors.The 8088, which is the 8bit bus version of the 8086, was the microprocessor used in the original IBM personal computer PC. Many other manufacturers used the 8088 and 8086 microprocessors to make personal computers compatible with IBMs original PC.

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Intels 80X86 family of microprocessors is also used in a wide variety of other electronic equipment. The 8088 and 8086 Microprocessors Programming, Interfacing, Software, Hardware, and Applications, Fourth Edition, is a thorough study of the 8088 and 8086 microprocessors, their microcomputer system architectures, and the circuitry used in the design of the microcomputer of

the original IBM PC. Written as a textbook for microprocessor courses at community colleges, four-year colleges, and universities, this book may be used in a one or two-semester course that emphasizes both assembly language software and microcomputer circuit design. Individuals involved in the design of microprocessor-based electronic equipment need a systems-level understanding of the 80X86 microcomputer that is, a thorough understanding of both their software and their hardware. The first part of this book explores the software architecture of the 8088 and 8086 microprocessors and teaches the reader how to write, execute, and debug assembly language programs. In this new edition, our coverage of software architecture and assembly language programming has been further reorganized to make the chapters shorter. Also, new material has been added on number system conversions, binary arithmetic, and combinational logic operations such as AND, OR, NOT, exclusive OR, half and full adders, and half and full subtractors. Software development tools Using the commands of the program debugger such as DEBUG to assemble, execute, and debug instructions and programs. Instruction set The function of each of the instructions in the instruction set, the permissible operand variations, and writing statements using the instructions. Programming techniques Basic techniques of programming, such as flowcharting, jumps, loops, strings, subroutines, and parameter passing. Applications The step-by-step process of writing programs for several practical applications, such as a block move routine.

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All of this material is developed in detail in Chapters 2 through 7. The software section includes many practical concepts and practical software applications. In addition, the various steps of the assembly language program development cycle are explored. The study of software architecture, instruction set, and assembly language programming is closely coupled with use of the DEBUG program on the PC. That is, the line-by-line assembler in DEBUG is used to assemble instructions and programs into the memory of the PC, while other DEBUG commands are used to execute and debug the programs. The use of a practical 80X86 assembler program, the Microsoft MASM Assembler, is also covered. Using MASM and other PC-based software development tools, the student learns to create a source program; assemble the program; form a run module; and load, run, and debug a program. The second part of the book examines the hardware architecture of microcomputers built with the 8088 and 8086 microprocessors. Next, the role of each of these subsystems is explored relative to overall microcomputer system operation. This material is presented in Chapters 8 through 13. Chapter 8 examines the architecture of the 8088 and 8086 microprocessor from a hardware point of view. Included is information on pin layout, minimum and maximum mode signal interfaces, signal functions, and clock requirements. The chapter also explores a number of special-purpose peripheral IC devices and interfaces. Chapter 11 introduces the interrupt context switching mechanism and related topics such as priority, interrupt vectors, the interrupt vector table, interrupt acknowledge bus cycle, and interrupt service routine. External hardware interrupt interface circuits are demonstrated using both discrete circuitry and the 82C59 programmable interrupt controller peripheral IC. The chapter also covers special interrupt functions such as software interrupts, the non-maskable interrupt, reset operation, and internal interrupt processing.

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The hardware design section continues in Chapter 12 with a study of the 8088-based microcomputer design used in the IBM PC. This chapter demonstrates a practical implementation of the material presented in the prior chapters on microcomputer interfacing techniques. The material on hardware includes interface circuit operation, design, and troubleshooting. Moreover, Chapter 13 explores PC bus interfacing and techniques for circuit construction, testing, and troubleshooting. The third part of the textbook provides detailed coverage of the other microprocessors of the 80X86 family: the 80286, 80386, 80486, and Pentium processors. Throughout these chapters, the focus is on how the processors' software and hardware architectures differ from those of the earlier family members.

Advanced topics introduced include DISC, CRISP, and superscaler processor architectures, realmode and protectedmode operation, burst, pipelined, and cached bus cycles, virtual memory, instruction set extensions, system control instructions, descriptors, paging, protection, multitasking, virtual 8086 mode, big and little endian data organization, clock scaling, dynamic bus sizing, address and data parity, and code and data cache memory. Coverage of the 80486 and Pentium processor families has been further expanded in this edition. For example, new sections are included in Chapter 15 on floatingpoint architecture and multimedia architecture. Floatingpoint numbers, floatingpoint registers, and the floatingpoint instruction set are introduced relative to the 80486DX microprocessor. Material on the MMX technology, SIMI data, MMX registers, and the operation of MMX instructions is introduced relative to the Pentium Processor with MMX technology. Finally, Chapter 16 examines the newest Pentium family processorsthe Pentium III processor and Pentium IV processor. SUPPLEMENTS An extensive package of supplementary materials is available to complement the 80X86 microprocessor program offered by this textbook.

It includes materials for the student and instructor for easy implementation of a practical PChosted laboratory program. These materials are Instructors Solution Manual to accompany The 8088 and 8086 Microprocessors Programming, Interfacing, Software, Hardware, and Applications, 4th Ed. ISBN 0130930822, Prentice Hall, Upper Saddle River, NJ 07458 Provides the answers to all of the student exercises in the textbook as well as transparency masters for over 300 of the illustrations in the textbook. A CDROM is included, which contains all of the programs and executable files that are created by the student in the process of performing the 25 exercises in the laboratory manual. Based on the method identified in the exercise, the programs have been created with either the assembler in DEBUG or the Microsoft Macro Assembler. The 8088 and 8086 Microprocessors Laboratory Manual, 4th Ed. ISBN 0130452319, Prentice Hall, Upper Saddle River, NJ 07458 Contains 25 skillbuilding laboratory exercises that explore the software architecture of the 80X86 microcomputer in the PC, assembly language program development, the internal hardware of the PC, and interface circuit operation, design, testing, and troubleshooting. Also included is a CD containing all of the programs needed by the student to perform the exercises in the laboratory manual. Included are files that contain the source program, source listing, object code, and run module. These files have been produced by assembling the source program with the Microsoft Macro Assembler. PCuLAB, Microcomputer Directions, Inc. P.O. Box 15127, Fremont, CA 94539 www.mcclab.com Not available through Prentice Hall An easytouse and versatile, external hardware expansion environment for any personal computer for experimenting with microcomputer interface circuits. It extends the ISA bus external to the PC, thereby forming a benchtop laboratory text unit for building, testing, and troubleshooting interface circuits.

The PCuLAB also has a continuity tester and logic probe for testing circuit operation. Walter A.Triebel Avtar Singh Equal emphasis is given to both assembly language software and microcomputer circuit design.To calculate the overall star rating and percentage breakdown by star, we don't use a simple average. Instead, our system considers things like how recent a review is and if the reviewer bought the item on Amazon. It also analyzes reviews to verify trustworthiness. Please try again later.The binding already has a split and I am just waiting for pages to start to separate. Many of the illustrations are photos of earlier Intel publication. The print is washed out and in some cases the font are of a very small size. So far, we covered the first few chapters, and there seems to be much devoted to simple opcodes as MOV, but not enough detail on the various adjustment opcodes. The book has a good collection of study problems homework.I am using this book for my embedded microprocessing class this fall.There are more mistakes in this 3rd edition than in the 2nd edition. Because of the errors, I found it hard to learn for two reasons. Either Ive made the mistake granted the book is correct, or that the authors and editors failed to do their jobs so I have to seek outside help. Even the solutions in the back of the book has obvious errors. SJSU students have used the 2nd and 3rd editions as REQUIRED text and paid dearly. I dont believe that students should be

FORCED to buy a book because it is written by a faculty member, especially one this bad! Suggestions and recommendations to the authors to correct blatant errors and make improvements were not implemented by the 3rd edition. How can a book create errors from one edition to another. Let me give one simple example. Figure 1013 on page 470 has the input and output configurations for the 8255 reversed in the 3rd edition BUT is correct in the 2nd edition.

I also believe a spelling checker was not used as there are typos throughout the book. Granted there are new materials in the latter part of the book, the older core part of the book should be errorfree by the third edition. It has been an extreme headache to study from this book. It has been frustrating, to say the least. To those who wish to waste their money and time, please buy this book. There are other texts less costly and probably better written. The authors need to be more proactive in producing the best possible product when their reputation is on the byline! BOOK 8085 Microprocessor Assembly Language Programming by Samir G. Pandya, LAP Lambert Academic Publishing 20170316 , Germany. Link of above mentioned BOOK Book Details ISBN13 9783330055742 ISBN10 333005574X EAN 9783330055742 Book language English By author Samir G. Pandya. PREREQUISITES Knowledge of Microprocessor, Computers or Number Systems is not a prerequisite to follow the contents of this Book. This tutorial assumes no background in Microprocessor, Number Systems, Computers or Assembly Language Programming. I hope I have answered your question. With Best Wishes, Samir G. Pandya Cite Popular Answers 1 4th Feb, 2016 Prasanna Waichal Research Lab If you are talking about microprocessors, I shall recommend a classic book by R.S. Gaonkar. This book is widely used for the architecture and programming of Intel 8085 processor but the newer editions also discuss modern processors like the 32bits ones. There are several books available on microcontrollers and you need to choose the one based on the particular controller you are intending to introduce in your course. Both programming examples and hardware interfacing are discussed in these books. For the simulators, there was a classic 8085 simulator used but now I am not sure if it is available with the newer versions of OS for modern PCs.

If you are looking for modern high speed devices like the ARM family, there are various vendors and each will supply you the simulator or complete development environment such as Keil etc. Cite 4 Recommendations All Answers 11 4th Feb, 2016 Prasanna Waichal Research Lab If you are talking about microprocessors, I shall recommend a classic book by R.S. Gaonkar. This book is widely used for the architecture and programming of Intel 8085 processor but the newer editions also discuss modern processors like the 32bits ones. There are several books available on microcontrollers and you need to choose the one based on the particular controller you are intending to introduce in your course. Both programming examples and hardware interfacing are discussed in these books. For the simulators, there was a classic 8085 simulator used but now I am not sure if it is available with the newer versions of OS for modern PCs. If you are looking for modern high speed devices like the ARM family, there are various vendors and each will supply you the simulator or complete development environment such as Keil etc. Of course it is old, but it is excellent. The Pentium processors are not explained in detail in this book but I am sure you will find a lot of good books. For microcontrollers, "The 8051 Microcontroller and Embedded Systems Using Assembly and C" by Muhammad Ali Mazidi, is my personal favorite. Additionally, you can watch video lectures here And this may not be a little far in your timeline, but if you ever want to study 8bit, 16bit, 24bit or 32bit microcontrollers, books by Lucio diJasio are the way to go. Cite 1 Recommendation 8th Feb, 2016 Smail Niar Universite Polytechnique HautsdeFrance Digital Design and Computer Architecture ARM Edition, Sarah Harris Auteur, David Harris, is a good book too. Cite 1 Recommendation 9th Feb, 2016 Ryan Andrew Taylor University of Alabama This book does not cover assembly quite as much as others, being a predominantly Cbased method.

However, having taken a microprocessors course on strictly Motorola assembly while in school, and now having been a part of teaching with this one, I would suggest Microcontrollers From Assembly

Language to C Using the PIC24 Family . Cite 1 Recommendation Deleted profile i would suggest 8051 microcontroller and its applications by muhammad ali mazidi for basic programming in embedded C Arm system developers guide for an basic introduction to arm family and its architecture Cite 3rd Oct, 2017 Narasimha Murthy The best books for all those readers to understand really the technical details of Microcontrollers and their secrets at Undergraduate level are 1Microcontrollers By.Scott McKenzie another best book that totally reveals the secrets of Microcontrollers is 2.The 8051 Microcontroller Based Embedded SystemsBy Manish Patel In my opinion the book Mazdi is a good book but it mostly speaks the history rather than Engineering. Keeping these points in view I have recommended these books. For Microprocessors undoubtedly books by D.V Hall and Gaonker are the good ones. Cite 14th Oct, 2017 Subrata Dey National Institute of Technology, Durgapur For me it is Microprocessors and Microcontrollers by N. Senthil Kumar. This one is good if you need microcontrollers too. Otherwise, Prof. Gaonkar's book is enough. Cite Can you help by adding an answer. Answer Add your answer Similar questions and discussions What is the difference between coherent signals and non coherent signals in a simple declaration. Question 18 answers Asked 31st Oct, 2013 Tarek Mohamed Salem. View Difference between Corresponding author and First author and what are all their responsibilities. Question 298 answers Asked 7th Mar, 2013 Balamurugan Manavalan. Question 268 answers Asked 15th Oct, 2017 Neelam Tyagi I want to know the Scopus or ISI or SCI journals of Mathematics, Managements and Engineering which provide a fast review process without a publishing fee.

View Why LaTeX is better choice than Microsoft Word. Question 137 answers Asked 10th Nov, 2013 Dr Qaim Mehdi Rizvi The LaTeX is quite complicated than Microsoft Word and really it is difficult to write something in LaTeX. Unfortunately I have no experience to write in LaTeX. Is it better than Word. Where do I get supplementary materials on LaTeX. View How to filter the noise in MPU6050 accelerometer data. Question 5 answers Asked 2nd Apr, 2019 Subhashini De Silva I am using the accelerometer data obtained from the MPU6050 for position estimation. I have attached an image of the distance graphs obtained from the collected data when the object is not moving. I've learned that this happens due to the noise appearing in the accelerometer data. I have used a moving average filter to filter the data but couldn't get correct position data when the sensor is not moving. Anyone familiar with this matter. Please guide me to overcome this problem. View How to import cv2 into anaconda spyder, Python 3.6 Question 20 answers Asked 10th Aug, 2018 Shaimaa Muhammad Im using python 3.6 on spyder 3.3 Anaconda and I use lib cv2 but it doesn't work. Any help View Is it possible to know band gap from scf calculation output in quantum espresso. Question 13 answers Asked 13th Jun, 2018 Jamshid Laali hello every one I want to calculate band gap of some materials but i want to know can i calculate it by just a scf run or i must calculate it by band run after svf in quantum espresso. View Does anybody have RBF Neural Network matlab code for my dataset. Question 4 answers Asked 10th Jan, 2018 Kanhaiya Sharma Dear, how can we use machine learning, deep learning or AI for designing antenna according to our need. Includes bibliographical references p. 32.

View The Optimal Method of Nonlinear Decoding for Nonlinear Encoding of QAM Signal Article Oct 2006 Wang Zhe Luo Jinwen Liu Yijing Jiang Na Nonlinear encoding and decoding are common techniques of digital signal processing that are widely used in digital communications. By using the principle of optimization, the paper proposes a simple method to decode for nonlinear encoding of QAM signal. This method can be used for both floating point and fixedpoint calculations. The calculating e. View New Families of Binary Sequence Pairs With TwoLevel and ThreeLevel Correlation Article Nov 2012 Xiuping Peng Chengqian Xu Kris Arasu A pair of binary sequences is generalized from the concept of a twolevel autocorrelation function of a single binary sequence. View Got a technical question. Get highquality answers from experts. Keep me logged in Log in or Continue with LinkedIn Continue with Google Welcome back. Keep me logged in Log in or Continue with LinkedIn Continue with Google No account. All rights reserved. Terms Privacy Copyright

Imprint. There are several applications of microprocessors. Some of the important applications are In this system, a microprocessor works with the temperature sensor to determine and adjust the temperature accordingly. They are used in all type of computers ranging from microcomputers to supercomputers. The microprocessors perform various functions, such as processing data from biosensors, storing measurements, and analyzing results. Function generators, frequency counters, frequency synthesizers, spectrum analyses and many other instruments are available, when microprocessors are used as controller. The input are usually simple numeric keyboards, sensors, buttons or while the output include lights, simple LCD screens displays, motors and relays, LEDs, buzzers etc. Microprocessors based systems are being used for spread sheet operations, word processing, storage etc.

In this industry, microprocessors are used in digital telephone sets, telephone exchanges and modem etc. WAN Wide Area Network and LAN Local Area Network for communication of vertical information through computer network. Developed by JavaTpoint. Registers General purpose 16bit 6 semidicated registers, BP and SP are not generalpurpose 32bit 8 GPRs, including EBP and ESP 64bit 16 GPRs, including RBP and RSP Floating point 16bit optional separate x87 FPU 32bit optional separate or integrated x87 FPU, integrated SSE2 units in later processors 64bit integrated x87 and SSE2 units, later implementations extended to AVX2 and AVX512 The 8086 was introduced in 1978 as a fully 16bit extension of Intels 8bit 8080 microprocessor, with memory segmentation as a solution for addressing more memory than can be covered by a plain 16bit address. Today, however, x86 usually implies a binary compatibility also with the 32bit instruction set of the 80386. This is due to the fact that this instruction set has become something of a lowest common denominator for many modern operating systems and probably also because the term became common after the introduction of the 80386 in 1985. Today, x86 is ubiquitous in both stationary and portable personal computers, and is also used in midrange computers, workstations, servers and most new supercomputer clusters of the TOP500 list. A large amount of software, including a large list of x86 operating systems are using x86based hardware. However, the continuous refinement of x86 microarchitectures, circuitry and semiconductor manufacturing would make it hard to replace x86 in many segments. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed. Each line item is characterized by significantly improved or commercially successful processor microarchitecture designs.

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