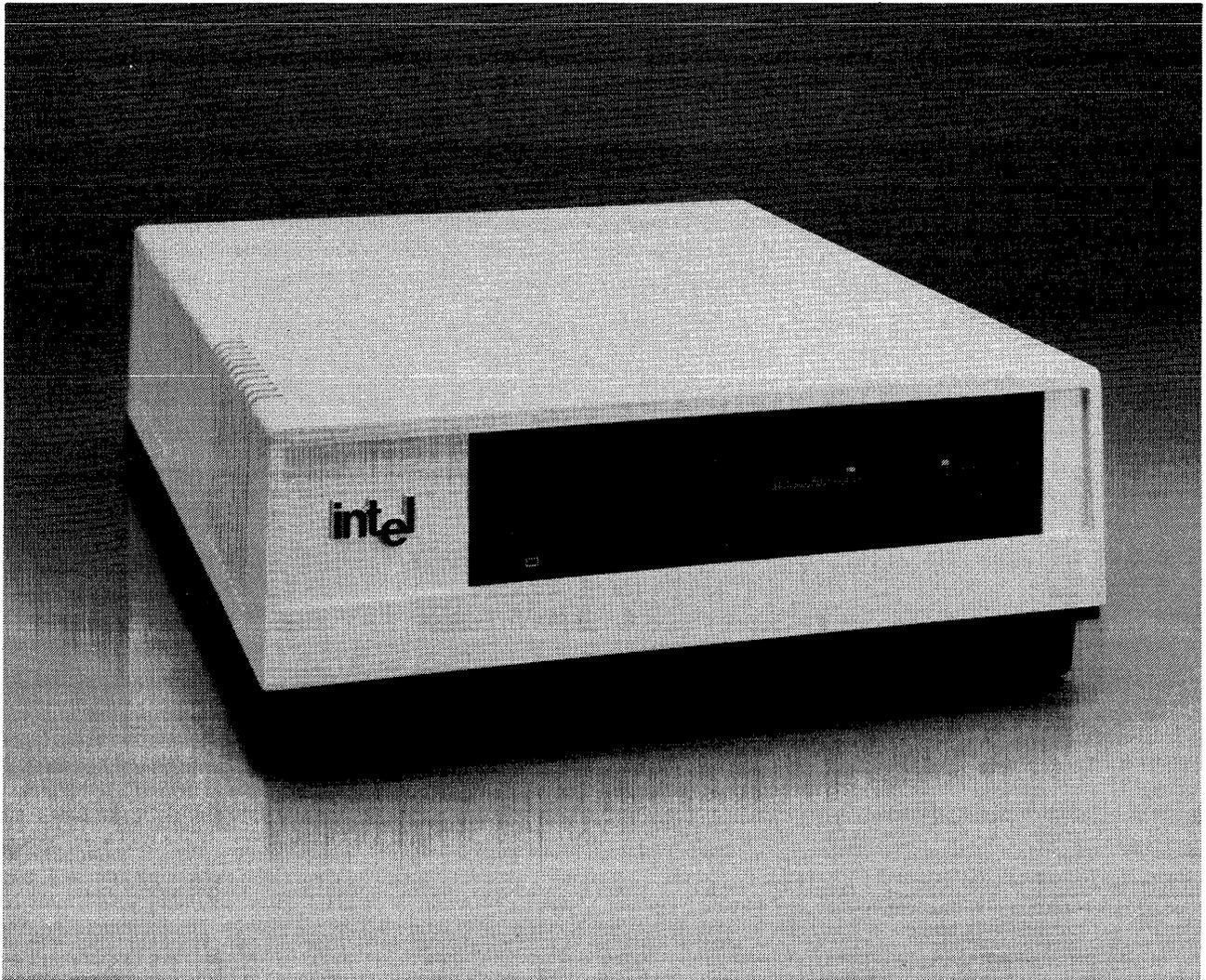




# SYSTEM 310 PUBLICATIONS GUIDE



# **SYSTEM 310 PUBLICATIONS GUIDE**

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-001	Original issue	10/83





This manual is a compendium of the technical material associated with the System 310. It is divided into three chapters covering hardware manuals, software manuals, and miscellaneous manuals. Each chapter consists of separate entries for individual manuals. Entries include the title of the material, the Intel order number, a brief description of the material, and the intended audience for the material.

#### **THE CHAPTERS AT A GLANCE**

##### **Chapter 1**

Provides descriptions of the hardware manuals associated with the System 310. Includes a section for system manuals, covering the system as a whole, and a section for hardware reference manuals, covering individual components that go into the system.

##### **Chapter 2**

Provides descriptions of the manuals provided with the iRMX™ and XENIX\* Operating Systems. Covers only those iRMX Operating System manuals written specifically for System 86/300 Series Microcomputers.

##### **Chapter 3**

Provides descriptions of manuals, handbooks, and catalogues containing information that is pertinent to the System 310. Includes specification manuals, cable installation guides, and product catalogues.

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**SYSTEM MANUALS**

**ORDER NUMBER**

<i>Introduction to the System 310 Microcomputer</i>	173202
Provides an introduction to the System 310 microcomputer. Includes information about the system hardware, software, peripherals, and diagnostic tests. Written for the system designer, purchaser, and user.	
<i>System 310 Installation and Operation Guide</i>	173211
Contains the information necessary to unpack, set up, and operate the System 310 microcomputer for the first time. Includes information concerning the initial running of the System Confidence Test. Written for the user.	
<i>System 310 Hardware Integration Guide</i>	173203
Presents information needed to successfully integrate hardware into the System 310. This manual is aimed at the system designer interested in modifying standard System 310 configurations.	
<i>System 310 Processor Configuration Guide: iSBC® 86/30 Single Board Computer</i>	173205
Provides a synopsis of the System 310 86/30 processor board functions and explains the functions of available expansion boards. Details jumper and component changes to each processor board for use in the System 310. Written for the system designer and technician.	
<i>System 310 Processor Configuration Guide: iSBC 286/10 Single Board Computer</i>	173442
Provides a synopsis of the System 310 286/10 processor board functions and explains the functions of available expansion boards. Details jumper and component changes to the processor board for use in the System 310. Written for the system designer and technician.	
<i>System 310 Memory Configuration Guide: 86-Based Systems</i>	173206
Discusses random access memory (RAM) in 86-based System 310's. Outlines the system memory map and provides jumper configuration and installation instructions for the iSBC 012B, 056A, and 304 memory boards used in the System 310. Written for the system designer and technician.	

*System 310 Memory Configuration Guide:**286-Based Systems*

173443

Discusses random access memory (RAM) in 286-based System 310's. Outlines the system memory map and provides instructions for jumper configuration and installation of the memory boards used with 286-based systems. Written for system designers and technicians.

*System 310 Disk Configuration Guide*

173207

Provides information needed to configure, install, and remove 5 $\frac{1}{4}$ -inch disk drive systems in the System 310. Covers flexible diskette drives, Winchester drives, the iSBX™ 218A controller board, the iSBC® 215G controller board, the i213A Winchester Data Separator board, and the scrambler board. Written for system designers.

*System 310 Hardware Maintenance Manual*

173208

Provides the necessary information for field servicing the System 310. Contains component descriptions, system specifications, parts lists, schematic diagrams, and wiring diagrams. Includes preventive maintenance procedures, removal and replacement procedures, and troubleshooting information. Written for the service technician.

*System 300 Series Diagnostic Software User's Guide*

173477

Describes the diagnostic software tools supplied with the System 300 Series Microcomputers (including the System 310). Provides operating instructions for the System Confidence Test and the System Diagnostic Tests. Presents necessary information for analyzing results of diagnostic tests. Written for the technician and user.

**HARDWARE REFERENCE MANUALS**

These manuals describe the individual components that may be used in the System 310 microcomputer.

**PROCESSOR BOARD MANUALS***iSBC 86/14 and 86/30 Single Board Computer**Hardware Reference Manual*

144044

Provides general information about the iSBC 86/14 and 86/30 Single Board Computers. Includes principles of operation; instructions for setting up, installing, and using the boards; programming guidelines for on-board programmable devices; and service information. Written for the system designer, programmer, and technician.

- iSBC 86/14 and 86/30 Hardware Reference Manual  
Change Notice* 144052  
Update of the information contained in the 86/14 and 86/30 hardware reference manual.
- Guide to Using the iSBC 286/10 Single Board Computer* 146271  
Describes the use of the iSBC 286/10 Single Board Computer. Includes board specifications, instructions for jumper configuration, and programming techniques. Written for the system designer, programmer, and technician.
- iSBC 337 MULTIMODULE™ Numeric Data Processor  
Hardware Reference Manual* 142887  
Provides general information about the iSBC 337 MULTIMODULE Numeric Data Processor board and describes the principles of operation. Contains installation instructions, programming information, and service information. Written for the system designer, programmer, technician, and user.
- MEMORY BOARD MANUALS**
- iSBC 016A/032A/064A/028A/056A RAM Board  
Hardware Reference Manual* 143572  
Provides general information about the 016A/032A/064A/028A/056A RAM board. Includes principles of operation, installation instructions, programming information, and service information. Written for the system designer and technician.
- iSBC 028C/056C/012C RAM Board  
Hardware Reference Manual* 145183  
Provides general information about the iSBC 028C/056C/012C RAM board. Includes principles of operation, installation instructions, programming information, and service information. Written for the system designer and technician.
- iSBC 028CX/056CX/012CX RAM Board  
Hardware Reference Manual* 145158  
Provides general information about the iSBC 028CX/056CX/012CX RAM boards. Includes principles of operation, installation instructions, programming information, and service information. Written for the system designer and technician.
- iSBC 028CX/056CX/012CX RAM Board  
Hardware Reference Manual Change Notice* 146094  
Update of the information contained in the iSBC 028CX/056CX/012CX RAM Board Hardware Reference Manual.

*iSBC 012B RAM Board Hardware Reference Manual* 112748  
 Contains a general description of the iSBC 012B RAM board. Includes theory of operation, installation and operation instructions, preventive maintenance procedures, and service information. Written for the system designer and technician.

#### **COMMUNICATIONS BOARD MANUALS**

*iSBC 534 Four-Channel Communications Expansion Board Hardware Reference Manual* 980450  
 Provides general information, principles of operation, installation instructions, programming information, and service information for the iSBC 534 Four-Channel Communications Expansion board. Written for the system designer, programmer, technician, and user.

*iSBC 544 Intelligent Communications Controller Board Hardware Reference Manual* 980616  
 Provides general information, principles of operation, installation instructions, programming information, and service information for the iSBC 544 Intelligent Communications Controller board. Written for the system designer, programmer, technician, and user.

*iSBC 88/45 Advanced Data Communications Processor Board Hardware Reference Manual* 143824  
 Provides general information, principles of operation, installation instructions, programming information, and service information for the iSBC 88/45 Advanced Data Communications board. Written for the system designer, programmer, technician, and user.

#### **PERIPHERALS MANUALS**

*iSBC 208 Flexible Disk Drive Controller Hardware Reference Manual* 143078  
 Provides general information, principles of operation, installation instructions, programming information, and service information for the iSBC 208 Flexible Disk Drive Controller. Written for the system designer, programmer, technician, and user.

*i213A Data Separator Installation Manual (title pending)* pending  
 Contains instructions for installing the i213A Data Separator in System 300 Series Microcomputers. Written for the technician.

- iSBC 215 Generic Winchester Disk Controller  
Hardware Reference Manual* 144780  
Provides general information, principles of operation, installation instructions, programming information, and service information for the iSBC 215 Generic Winchester Disk Controller. Written for the system designer, programmer, technician, and user.
- iSBX™ 217 Magnetic Cartridge Tape Interface  
MULTIMODULE Board Hardware Reference Manual* 145497  
Provides general information, principles of operation, installation instructions, programming information, and service information for the iSBX 217 Magnetic Cartridge Tape Interface. Written for the system designer, programmer, technician, and user.
- iSBX 218A Flexible Diskette Controller Board  
Hardware Reference Manual* 145911  
Provides general information, principles of operation, installation instructions, programming information, and service information for the iSBX 218A Flexible Diskette Controller board. Written for the system designer, programmer, technician, and user.
- iSBC 220 SMD Disk Controller Hardware  
Reference Manual* 501600  
Provides general information, principles of operation, installation instructions, programming information, and service information for the iSBC 220 SMD Disk Controller. Written for the system designer, programmer, technician, and user.
- 5.25-inch Winchester Disk Drive (CMI) Service Manual* 133252  
Contains operation and service information for the Computer Memories, Inc., CM5412 5¼-inch Winchester disk drive. Written for system designers and technicians.
- iSBX 351 Serial I/O MULTIMODULE Board  
Hardware Reference Manual* 983190  
Provides general information, principles of operation, installation instructions, programming information, and service information for the iSBX 351 Serial I/O MULTIMODULE board. Written for the system designer, programmer, technician, and user.

*iSBC 550 Ethernet\* MULTIMODULE Board**Hardware Reference Manual*

121746

Provides general information, principles of operation, installation instructions, programming information, and service information for the iSBC 550 Ethernet MULTIMODULE board. Written for the system designer, programmer, technician, and user.

*iSBC 308/309 Memory Manager and Protection**MULTIMODULE Board Hardware Reference Manual*

144686

Provides general information, principles of operation, installation instructions, programming information, and service information for the iSBC 308/309 Memory Manager and Protection MULTIMODULE board. Written for the system designer, programmer, technician, and user.

\*Ethernet is a trademark of Xerox Corporation.



**iRMX™ 86 RELEASE 5 FOR SYSTEM 86/300  
SERIES MICROCOMPUTERS MANUALS**

- Guide to Installing the iRMX 86 Release 5 Operating System on System 86/300 Series Microcomputer Systems* 172762  
Contains the necessary information for installing the iRMX 86 Release 5 Operating System on System 300 Series Microcomputers. Includes procedure for transferring operating system from flexible diskettes to Winchester disks. Written for the programmer and user.
- iRMX 86 Release 5 Configuration Guide for System 86/300 Series Microcomputer Systems* 172765  
Provides the necessary information for configuring the iRMX 86 Release 5 Operating System on a System 300 Series Microcomputer. Includes an overview of the operating system and describes the features of the operating system's segments. Written for the system programmer.
- iRMX 86 Release 5 Operator's Manual for System 86/300 Series Microcomputer Systems* 172764  
Contains operating procedures for the iRMX 86 Operating System. Includes explanations of human interface commands and functions. Written for the programmer and user.
- iRMX 86 Release 5 Operator's Manual for System 86/300 Series Microcomputer Systems Change Notice* 173545  
Contains an update of the material found in the iRMX 86 Release 5 Operator's Manual for system 300 Series Microcomputer.
- iRMX 86 Release 5 Basic I/O System Reference Manual for System 86/300 Series Microcomputer Systems* 172766  
Provides detailed descriptions of system calls for the BASIC I/O system of the iRMX 86 Operating System. Written for programmers.
- iRMX 86 Release 5 Extended I/O System Reference Manual for System 86/300 Series Microcomputer Systems* 172767  
Provides detailed descriptions of system calls for the EXTENDED I/O system of the iRMX 86 Operating System. Describes differences between the BASIC I/O and EXTENDED I/O systems so that the programmer can choose which system to implement. Written for programmers.

**XENIX\* MANUALS**

*XENIX Operating System Documentation*

173258

Provides comprehensive documentation of all aspects of the XENIX Operating System. Describes features and utilities of the XENIX system. Includes instructions for installation and use. Written for the system programmer and user.

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- iSXM™ 951 Terminal Communications Installation Guide  
for System 86/310 Microcomputers* 173074  
Provides complete instructions for installing cables from optional terminal communications boards (like the iSXM 534) to the System 310. Written for the system designer and technician.
- iSDM™ 286 System Debug Monitor Reference Manual* 145804  
Aids user in debugging iAPX 286-based applications. Allows debugging of real addressing mode and protected virtual addressing mode applications on iAPX 286-based systems. Written for the system analyst.
- Intel iLBX™ Bus Specification* 145695  
Describes the operation protocol of the iLBX bus and defines the electrical and mechanical requirements of the iLBX bus. Provides guidelines for implementing the iLBX bus in a system. Written for the system designer and system analyst.
- MULTIBUS® Specification* 980683  
Describes the operation protocol of the MULTIBUS and defines the electrical and mechanical requirements of the MULTIBUS interface. Provides guidelines for implementing the MULTIBUS interface in a system. Written for the system designer and system analyst.
- iSBX Bus Specification* 142686  
Describes the operation protocol of the iSBX bus and defines the electrical and mechanical requirements of the iSBX bus. Provides guidelines for implementing the iSBX bus interface in a system. Written for the system designer and system analyst.
- OEM Systems Handbook* 210941  
Contains all application notes, article reprints, and data sheets for OEM boards and systems. Written for the system designer.
- Memory Components Handbook* 210830  
Contains all application notes, article reprints, data sheets, and other design information on RAMs, DRAMs, EPROMs, E<sup>2</sup>PROMs, and Bubble Memories. Written for the system designer.

- Microprocessor and Peripheral Handbook* 210844  
Contains data sheets for all microprocessors and peripherals. Written for the system designer.
- Introduction to the iAPX 286* 210308  
Provides an overview of the major features of the iAPX 286 architecture. Includes a discussion of the execution model, address space, and command set. programming guidelines and commands. Written for the system designer, system analyst, and programmer.
- iAPX 286 Programmer's Reference Manual* 210498  
Contains detailed information about the iAPX 286 architecture and operation. Includes basic and extended instruction sets, memory management facilities, and protection mechanisms. Written for the system analyst and programmer.
- iSBC Applications Handbook (1981)*  
Contains all current application notes, reliability reports, magazine articles, and professional journal reprints about the products in the iSBC product family. Includes sections on iSBC hardware, iSBC software, and iCS™ products. Written for the system designer and technician.
- MULTIBUS OEM Products 1983 Configuration Guide* 210515  
Provides specifications and describes features of MULTIBUS OEM products. Includes sections for single board computers, memory expansion boards, I/O expansion boards, peripherals/graphics controllers, communications controllers, and microsystem software. Written for system designers and purchasing agents.

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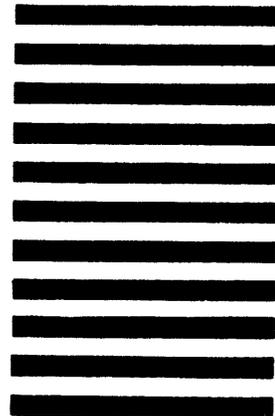
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