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An Interface Between Two 8088-Based Microcomputers

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**AN INTERFACE
BETWEEN TWO
8088-BASED MICROCOMPUTERS**

by

Scott E. Plant

April 18, 1985

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TABLE OF CONTENTS

	Page
List of Illustrations	ii
Abstract	iii
INTRODUCTION	
1.1 Statement of the Problem	1
1.1.1 Description of Receiver/Exciter Module	2
1.1.2 Description of IBM Personal Computer	3
1.2 Purpose of Document	3
DESIGN AND OPERATION OF IBM PC EXTERNAL INTERFACE BOARD	
2.1 Purpose of External Interface Board.....	4
2.2 IBM PC I/O Channel	4
2.3 Address/Data Bus Buffers	4
2.4 Address Decoding Network	5
DESIGN AND OPERATION OF INTERFACE BOARD	
3.1 Description of Interface Box	6
3.2 Decoding Network	7
3.3 I/O Ports	8
3.4 Serial Data Ports	8
3.4.1 UART's	10
3.4.2 Line Drivers	10
3.5 Keyboard Encoder Testing Circuit	11
3.5.1 Choosing a Switch	11
3.5.2 Operation	11
CHOOSING A POWER SUPPLY AND CLOCK SOURCE	
4.1 Power Supply	13
4.2 Timing Board	14
SOFTWARE	
5.1 Test Software	15
5.1.1 Software for I/O Ports	15
5.1.2 Software for UART's	18
5.1.3 Software for Keyboard Tester	19
5.2 Complete Software	19
SUMMARY	
6.1 Mechanism in Use	21
6.2 Recommendations	21
6.3 Conclusion	22
Bibliography	23
Appendix A: Proposal	24
Appendix B: IBM PC Prototype Expansion Card	28
Appendix C: I/O Channel	33
Appendix D: System Memory Map	37
Appendix E: 82C52 UART	39
Appendix F: Power Supply Board	51
Appendix G: Timing Board	53
Appendix H: Software listings	55

List of Illustrations

	Page
1) RE/PC Interface Configuration	1
2) Receiver/Exciter Module	2
3) PC Ext. Interface Decoding Circuit	5
4) RE/PC Interface	6
5) RE/PC Interface Decoding Circuit	7
6) Bidirectional Bus	8
7) Serial Data Port Circuit	9
8) Keyboard Simulator	12
9) Flowchart for Handshake Program	16
10) Flowchart for UART Test Routines	18

Abstract
of
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This project is an interface between an IBM PC and an 8088-based microcomputer called an R/E Module. The Interface enables the IBM PC to monitor all 58 output lines and stimulate all 49 input lines of the R/E Module as well as test the serial data ports and keyboard encoder of the Module. The interface is comprised of two separate components. One of these is a board that plugs into the I/O Channel inside the PC in order to bring out buffered versions of the PC's bus lines. The other component is an external fixture that contains the circuitry necessary for testing the R/E Module. This circuitry consists of a decoding network to enable the ports at addresses 300-31FH. It also includes 15 input and output latches, two UART's to test the serial data ports, and a circuit to simulate the keyboard of the R/E module. This fixture also contains a power regulator and a 10 kHz clock generator. The software for the interface runs on the PC automatically on power-up, providing the user with a quick and easy way to test the functions of the R/E Module.