
IOC Datasheet

Part No 0460,018
Issue No 1.0
30 September 1986

© Copyright Acorn Computers Limited 1986

Neither the whole nor any part of the information contained in, or the product described in, this manual may be adapted or reproduced in any material form except with the prior written permission of the copyright holder.

The product described in this manual is subject to continuous developments and improvements. All particulars of the product and its use contained in this manual are given by Acorn Computers in good faith. However, all warranties implied or expressed, including but not limited to implied warranties or merchantability or fitness for purpose, are excluded.

This manual is intended only to assist the reader in the use of the product. Acorn Computers shall not be liable for any loss or damage arising from the use of any information in this manual, or any error or omission in such information, or any incorrect use of the product.

ISBN 1 85250 026 3

Published by:

Acorn Computers Limited, Fulbourn Road, Cherry Hinton, Cambridge CB1 4JN, UK

Contents

1. Introduction	2
2. Block diagram	3
3. Functional Diagram	4
4. Description of Signals	5
5. Programming Model	7
5.1 Access Speed	8
5.2 Addresses	8
5.3 Data	8
6. Internal Registers	9
6.1 Control Register	10
6.1.1 Control register read	10
6.1.2 Control register write	10
6.2 Keyboard Asynchronous Receiver Transmitter (KART)	11
6.2.1 Serial Tx Data register write	11
6.2.2 Serial Rx Data read	11
6.2.3 Initialisation	11
6.2.4 Receive Interrupt	11
6.3 Interrupt Registers	12
6.3.1 Internal Interrupt Events	12
6.3.2 External Interrupt Events	12
6.3.3 Level Interrupts	12
6.3.4 Latched Interrupts	12
6.3.5 Synchronisation	12
6.3.6 IRQ Status A register read	13
6.3.7 IRQ Status B register read	13
6.3.8 FIQ Status register read	14
6.3.9 IRQ Clear register write	14
6.3.10 Interrupt Request registers read	15
6.3.11 Interrupt Mask registers read/write	15
6.4 Counters	16
6.4.1 Register actions	16
6.4.2 Counter schematic	16
6.4.3 Counter Registers	17
6.4.4 Counters 0 and 1	17
6.4.5 Counter 2 (BAUD)	17
6.4.6 Counter 3 (KART)	17
7. Peripherals	18
8. ARM/IO Interface	19
8.1 Peripheral Address and Data	19
8.1.1 Peripheral Write Cycles	19
8.1.2 Peripheral Read Cycles	19
8.2 Peripheral Select Lines	19
8.3 Multiple IO Controllers	19
8.4 IO Grant Line	19
9. Reset and Power-on	20
10. IO-Cycle State Machine	21
11. DC Parameters	22
11.1 Absolute Maximum Ratings	22
11.2 DC Operating Conditions	23

11.3 DC Characteristics	24
12. AC Parameters	26
12.1 Internal Register Read Timings	28
12.2 Internal Register Write Timings	29
12.3 General Timing For Cycle Types 0, 1 and 2	30
12.4 General Timings for Cycle Type 3 (Synchronous)	31
12.5 Cycle Types 0, 1, 2 Common timing	32
12.5.1 Cycle Start	32
12.5.2 Cycle End	33
12.6 Read and Write Buffer Enables	34
13. Appendix A	35
1 Cycle Type 0 Read	35
2 Cycle Type 0 Write	35
3 Cycle Type 1 Read	36
4 Cycle Type 1 Write	36
5 Cycle Type 2 Read	37
6 Cycle Type 2 Write	37
7 Cycle Type 3 Read	38
8 Cycle Type 3 Write	39
14. Packaging	40

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.