

DOC-on-PCMCIA Evaluation Board
User Manual

AUGUST 2003
91-UM-0803-00

DOCUMENT CONTROL INFORMATION

DCO No.:

	Title	Name	Date
Issued by:	Product Management Engineer	Liran Lanir	August 1, 2003

TABLE OF CONTENTS

1. Scope	4
2. Product Overview.....	4
2.1. DiskOnChip	4
2.2. PCMCIA	4
3. DOC-on-PCMCIA Evaluation Board.....	5
4. Operating The DOC-on-PCMCIA EVB via the DOS Usage Utility	7
How to Contact Us	8

1. SCOPE

The DOC-on-PCMCIA Evaluation Board (EVB) is a removable EVB that provides a quick, easy way to debug DiskOnChip using the laptop PCMCIA slot (and a DOS environment). A Usage Utility program is provided.

The DOC-on-PCMCIA EVB has Mictor connectors, which enables assembling any kind of DiskOnChip device using the available DiskOnChip adapters.

2. PRODUCT OVERVIEW

2.1. DiskOnChip

M-Systems' DiskOnChip family of products is comprised of high-performance, single-chip flash disks that provide full hard drive emulation for all major operating systems and platforms. This unique product line offers a complete data storage solution for applications in which mechanical hard drives cannot be used, such as embedded systems, Internet access devices, network computers and mobile systems.

2.2. PCMCIA

The PCMCIA standard addresses the harsh and rugged environments of both mobile computing and the office. In addition to removable applications, the standard supports embedded uses. The PCMCIA software architecture realizes a BIOS level software interface that provides a method for accessing computer PCMCIA slots. Another software component creates the management interface that enables the allocation of system resources (such as memory and interrupts) once the card has been inserted.

3. DOC-ON-PCMCIA EVALUATION BOARD

Figure 1 illustrates the DOC-on-PCMCIA EVB.

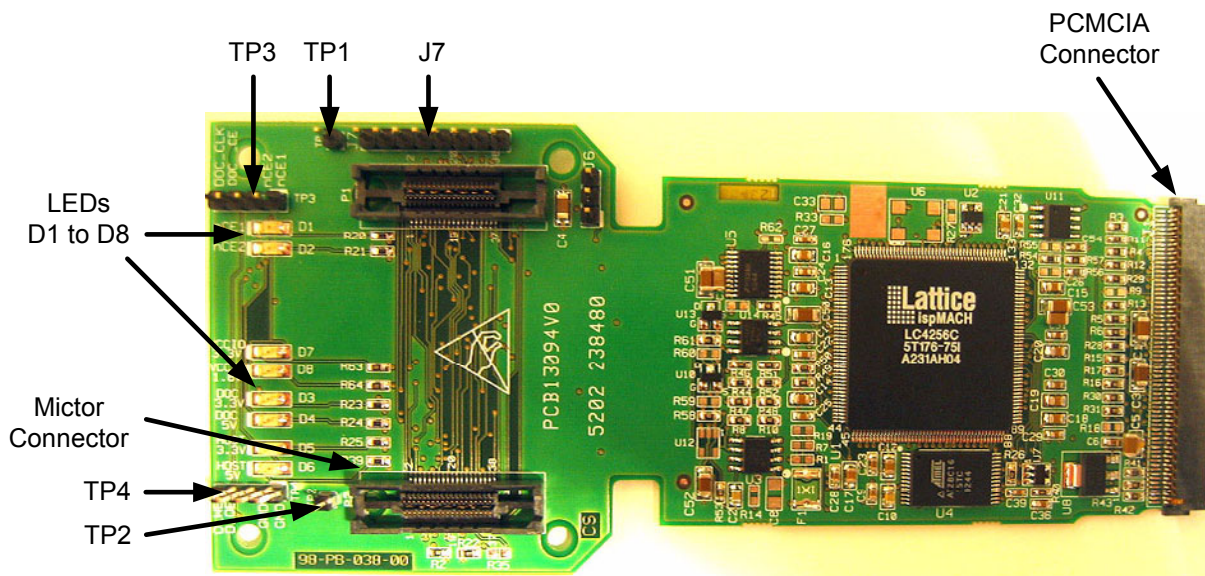


Figure 1: DOC-on-PCMCIA Evaluation Board

Table 1, Table 2 and Table 3 describe the jumpers, LEDs and test points on the DOC-on-PCMCIA EVB.

Table 1: Jumper Description

Jumper	Description	Configuration
JP7	CPLD Programming Header	

Table 2: LED Description

LED	Description
D1	PCMCIA CE1#
D2	PCMCIA CE2#
D3	DiskOnChip 3.3V (Core)
D4	DiskOnChip 5V (Core)
D5	Host 3.3V (DOC-on-PCMCIA is not supported)
D6	Host 5V (correct voltage for DOC-on-PCMCIA)
D7	DiskOnChip 3.3V (VCC I/O)
D8	DiskOnChip 1.8V (VCC I/O)

Table 3: Test Point Description

Test Points	Description
TP1	GND
TP2	DiskOnChip VCC Core
TP3	PCMCIA CE1# PCMCIA CE2# DiskOnChip CE# DiskOnChip Clock
TP4	GND GND DiskOnChip OE# DiskOnChip WE#

4. OPERATING THE DOC-ON-PCMCIA EVB VIA THE DOS USAGE UTILITY

M-Systems provides the Usage Utility for operating the DOC-on-PCMCIA EVB in a DOS environment. This is an executable file that does not require any installation procedures, and is supplied with the product. A list of Usage Utility flags (switches) is provided below.

Note: The DOC-on-PCMCIA EVB is referred to by the nickname PortaDOC in the software code.

Usage Utility Syntax

```
PortaDOC {/ON | /OFF} [flags]
```

Usage Utility Flags

/ON | /OFF – Sets the power ON or OFF

/S:Socket – Sets the socket number (default = both sockets)

/U:Version – Sets the device version (default = 1)

/P:Device – Sets the PCI bus device number

/W:Window – Sets the memory window address (default = D000)

/B:Width – Sets the PCMCIA bus width /B: 8 = 8 bits, and /B: 16 = 16 bits (default = 8 bits)

/V:Voltage – Sets the socket voltage (default = 3V)

/Z:Wait – Sets the wait states (default = 0)

/H | /? – Set this flag to print this help

Usage Utility Sample Use:

```
PortaDOC /on /b:16 /s:0 /w:C800 /v:5 /z:3
```

This turns on the DOC-on-PCMCIA EVB, sets it to 16-bit bus width, and assigns socket no 0, address c800, 5V socket voltage and three wait states.

Note: The current version of the Usage Utility does not support NOR programming for MCP devices.

HOW TO CONTACT US

USA

M-Systems Inc.
8371 Central Ave, Suite A
Newark CA 94560
Phone: +1-510-494-2090
Fax: +1-510-494-5545

Japan

M-Systems Japan Inc.
Asahi Seimei Gotanda Bldg., 3F
5-25-16 Higashi-Gotanda
Shinagawa-ku Tokyo, 141-0022
Phone: +81-3-5423-8101
Fax: +81-3-5423-8102

Taiwan

M-Systems Asia Ltd.
Room B, 13 F, No. 133 Sec. 3
Min Sheng East Road
Taipei, Taiwan
R.O.C.
Tel: +886-2-8770-6226
Fax: +886-2-8770-6295

China

M-Systems China Ltd.
25A International Business Commercial Bldg.
Nanhu Rd., Lou Hu District
Shenzhen, China 518001
Phone: +86-755-2519-4732
Fax: +86-755-2519-4729

Europe

M-Systems Ltd.
7 Atir Yeda St.
Kfar Saba 44425, Israel
Tel: +972-9-764-5000
Fax: +972-3-548-8666

Internet

<http://www.m-sys.com>

General Information

info@m-sys.com

Sales and Technical Information

techsupport@m-sys.com

This document is for information use only and is subject to change without prior notice. M-Systems Flash Disk Pioneers Ltd. assumes no responsibility for any errors that may appear in this document. No part of this document may be reproduced, transmitted, transcribed, stored in a retrievable manner or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, without prior written consent of M-Systems.

M-Systems products are not warranted to operate without failure. Accordingly, in any use of the Product in life support systems or other applications where failure could cause injury or loss of life, the Product should only be incorporated in systems designed with appropriate and sufficient redundancy or backup features.

Contact your local M-Systems sales office or distributor, or visit our website at www.m-sys.com to obtain the latest specifications before placing your order.

©2003 M-Systems Flash Disk Pioneers Ltd. All rights reserved.

M-Systems, DiskOnChip, DiskOnChip Millennium, DiskOnKey, DiskOnKey MyKey, FFD, Fly-By, iDiskOnChip, iDOC, mDiskOnChip, mDOC, Mobile DiskOnChip, Smart DiskOnKey, SuperMAP, TrueFFS, uDiskOnChip and uDOC are trademarks or registered trademarks of M-Systems Flash Disk Pioneers, Ltd. Other product names or service marks mentioned herein may be trademarks or registered trademarks of their respective owners and are hereby acknowledged. All specifications are subject to change without prior notice.