

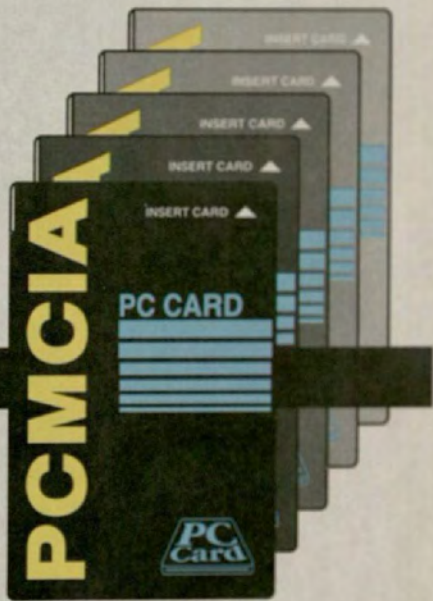
PERSONAL  
COMPUTER  
MEMORY CARD  
INTERNATIONAL  
ASSOCIATION

PC CARD  
STANDARD 2.01

SOCKET SERVICES  
SPECIFICATION 2.0

RECOMMENDED  
CARD SERVICES  
SPECIFICATION 2.0

PCMCIA STANDARDS



CLEVELAND PUBLIC LIBRARY  
SCIENCE & TECHNOLOGY DEPT.

JUL 28 1994

STANDARDS

## Release Record

Edition	Date Published
Release 1.0	November, 1990
Release 2.0	September, 1991
Release 2.01	November, 1992
Release 2.1	July, 1993

NOTICE: THIS MATERIAL MAY BE PROTECTED BY  
COPYRIGHT LAW (TITLE 17 U.S. CODE)

### Published by:

Personal Computer Memory Card International Association  
1030 East Duane Avenue  
Suite G  
Sunnyvale, CA 94086  
Tel: (408) 720-0107  
Fax: (408) 720-9416

Copyright © 1992, 1993 by Personal Computer Memory Card International Association (PCMCIA).  
All Rights reserved. No part of this publication may be reproduced or transmitted in any form or  
by any other means without the prior written permission of PCMCIA.



**Personal Computer Memory Card International Association**  
1030 East Duane Avenue, Suite G, Sunnyvale, CA 94086

Printed in the United States of America.



Printed on recycled paper.

The interconnect system shall pass all requirements of subsection 3.4 (Connector Reliability) and subsection 3.5 (Connector Durability).

If a connector ejector mechanism is used, it is recommended the ejector mechanism pass all requirements for reliability and durability, as applicable, in subsections 3.4 and 3.5.

### 3.3 PC Card Guidance

The PC Card shall be guided by the host connector for a minimum distance of 0.394" (10.0) before the socket connector bottoms on the host (pin) connector (Figure 3-15).

To ensure alignment of the PC Card to connectors, the PC Card should be guided for a minimum distance of 1.570" (40.0) before engagement.

### 3.4 Connector Reliability

The interconnect system as specified in subsection 3.2 shall meet or exceed all reliability test requirements of this subsection. Unless otherwise specified, all test and measurements shall be made at:

Temperature	15°C to 35°C
Air pressure	650 to 800 mm mercury (860 to 1060 mbar)
Relative humidity	25% to 85%

If conditions must be closely controlled in order to obtain reproducible results, the parameters shall be:

Temperature	23°C +/- 1°C
Air pressure	650 to 800 mm mercury (860 to 1060 mbar)
Relative humidity	50% +/- 2%

PC CARD ATA  
SPECIFICATION 1.01

AIMC  
SOCKET SERVICES  
SPECIFICATION 2.0

RECOMMENDED  
CARD SERVICES  
SPECIFICATION 2.0

**3.4.1 Mechanical Performance**

The interconnect system mechanical performance is specified as follows:

**3.4.1.1 Office Environment**

STANDARD	TESTING
Guaranteed number of insertions/ejections = 10,000 min.	Paragraph 3.5.1

**3.4.1.2 Harsh Environment**

STANDARD	TESTING
Guaranteed number of insertions/ejections = 5,000 min.	Paragraph 3.5.2

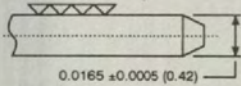
**3.4.1.3 Total Insertion Force**

STANDARD	TESTING
8.8lbs (4kg) max.	Insert and extract at speed of 1" (25mm)/min.

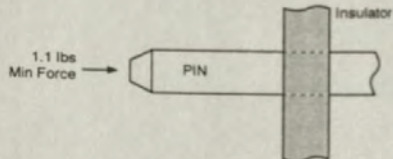
**3.4.1.4 Total Pulling Force**

STANDARD	TESTING
1.5lbs (.68kg) min.	Insert and extract at speed of 1" (25mm)/min.

**3.4.1.5 Single Pin Pulling Force**

STANDARD	TESTING
0.022lbs (10g) minimum initial value only.  Gauge: Material - Tool making steel Hardness - HRC = 50 to 55	Pull the gauge pin shown to left at speed of 1" (25mm)/min. Gauge pin's surface must be wiped clean of dirt and lubrication oil.

**3.4.1.6 Single Pin Holding Force**

STANDARD	TESTING
Pin shall not push out of the insulator when 2.2lbs (1kg) minimum force is applied to the pin.	Push pin on the axis with 2.2 lbs (1kg) minimum force while holding insulator rigid. 

PC CARD  
STANDARD 2.01

#### 4.3.2 Data BUS (D0-D15)

Signals D0 through D15 constitute the bidirectional data bus. The most significant bit is D15. Bit number (and significance) decrease downward to D0.

#### 4.3.3 Card Enable (-CE1 & -CE2)

The -CE1 and -CE2 lines are active-low, card-enable, input signals. The -CE1 input enables even-numbered-address bytes and -CE2 enables odd-numbered-address bytes. A multiplexing scheme based on A0, -CE1 and -CE2 allows 8-bit hosts to access all data on D0 through D7 if desired. See Table 4-7.

To ensure data retention on battery-backed-up SRAM cards, and permit power-up initialization of peripheral cards, a minimum of 20 milliseconds must elapse after:

1. the application of Vcc to the card, or
  2. the end of the RESET signal to the card (in systems which support the RESET signal),
- whichever event occurs latest.

The card enables are used to access both Common and Attribute Memory, and to access I/O.

Refer to Section 4.7 for additional information on Common Memory Read Functionality.

Refer to Section 4.14 for additional information regarding I/O Read and Write Functionality.

#### 4.3.4 Output Enable (-OE)

The -OE line is the active-low, input signal used to gate Memory Read data from the memory card. SRAM memory cards fall into two categories:

1. cards where the -OE signal must be negated during write operations, and
2. cards that do not use the -OE signal during write operations and allow the signal to be in either state.

Hosts must negate the -OE signal during write operations.

#### 4.3.5 Write Enable/Program (-WE/-PGM)

The -WE/-PGM input signal is used for strobing Memory Write data into the memory card. This line is also used for memory cards employing programmable-memory technologies. See Section 5.2.6 for identification of Programmable Memory Technology cards.

#### 4.3.6 Ready/Busy (+RDY/-BSY)

The Ready/Busy function is provided by the +RDY/-BSY signal when the card and the host socket are configured for the Memory-Only Interface. When a host socket and the card inserted into it are both configured for the I/O interface, the +RDY/-BSY function is provided by the +RDY/-BSY status bit in the card's Pin Replacement Register. When the Pin Replacement Register is not implemented on a card configured for the I/O Interface, the +RDY/-BSY function is continuously in the Ready condition. The following descriptions of the +RDY/-BSY signal apply equally to both the +RDY/-BSY signal of the Memory-Only Interface and to the +RDY/-BSY bit in the Pin Replacement Register of a card configured for the I/O Interface. See Section 4.14.3 for a description of the Pin Replacement Register.

# 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.