

ICOP-4087

PC/104 Solid State Disk Module

User's Manual

(Version1.1)

Copyright Notice

This document is copyrighted, 2000 by ICOP Technology Inc. All rights are reserved. The information in the manual is subject to change without notice in order to improving products.

No part of this manual may be reproduced, copied, translated or transmitted in any form or by any means without the prior written permission of the manufacturer.

ICOP Technology Inc. assumes no responsibility for any inaccuracies that may be contained in this document. ICOP Technology Inc. makes no commitment to update or to keep current the information contained in this manual.

©Copyright 2000 by ICOP Technology Inc.
All rights reserved. Ver.1.1 2006,
Printed in Taiwan

Trademarks Acknowledgments

All brand names and trademarks are the properties and registered brands of their respective owners.

T a b l e o f C o n t e n t s

Chapter 0	Packing List	1
Chapter 1	Specifications	2
Chapter 2	Jumper Settings	5
Chapter 3	Connectors	6
Chapter 4	Installation guide	7
Warranty		19

Chapter 0

Packing List

Function	Function	Package
ICOP-4087	PC/104 Solid State Disk Module	<ul style="list-style-type: none">● ICOP-4087 PC/104 Solid State Disk Module x 1● Screw Kit x 1

Chapter 1

Specifications

Features	ICOP-4086
Emulate Drive	A or B
Bootable Drive	A
Bus Interface	PC/104 8 bit standard compliant
Memory Sockets	4 (32 Pin DIP socket)
Power Requirement	+5V @120mA
Board Weight	80g
Board Size	96mm X 90 mm (3.54 x 3.77 inches)
Storage Temperature	0 ~ +60°C

Description

Emulates drive A, B,

Bootable from Drive A or Drive B simulation

Flash Disk:

Support SRAM / NVSRAM memory up to 4 sockets

Maximum capacity: 512KB x 4=2M byte by SRAM / NVSRAM Memory.

Type supported:

SRAM: Sony CX581000AP-70LL (128K)

HITACHI HM628512LFP-7 (512K)

NVSRAM: Dallas-DS1245Y-100 (128K)

Dallas-DS1245Y-120 (128K)

Dallas-DS1250Y-100 (512K)

Note: (1) Stack on 4 pcs ICOP-4087 in maximum, to extend 4 times capacity. Compatible with BIOS level, without program modification or driver requirement.

(2)Memory Address: **D0000~DFFFF**

Bus Interface: PC/104 8 bit standard compliant

Socket: 4 sockets for SRAM / NVSRAM memory

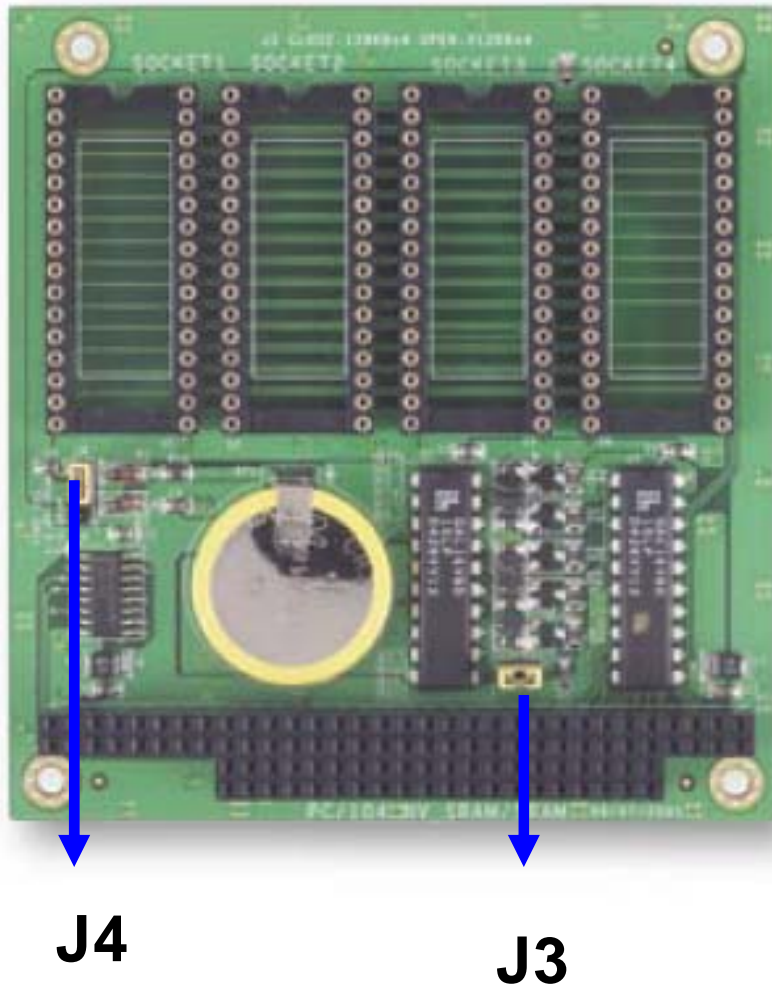
Power Requirements: single +5V @ 120 mA

Dimensions: 90 (L) x 96 (W) mm.

Weight: 80 g

Operating Temperature: 0 ~ +60 °C

Component Location



Chapter 2

Jumper Setting

J3: Size Select

Pin#	Signal Name
Close	128K x 4
Open	512K x 4

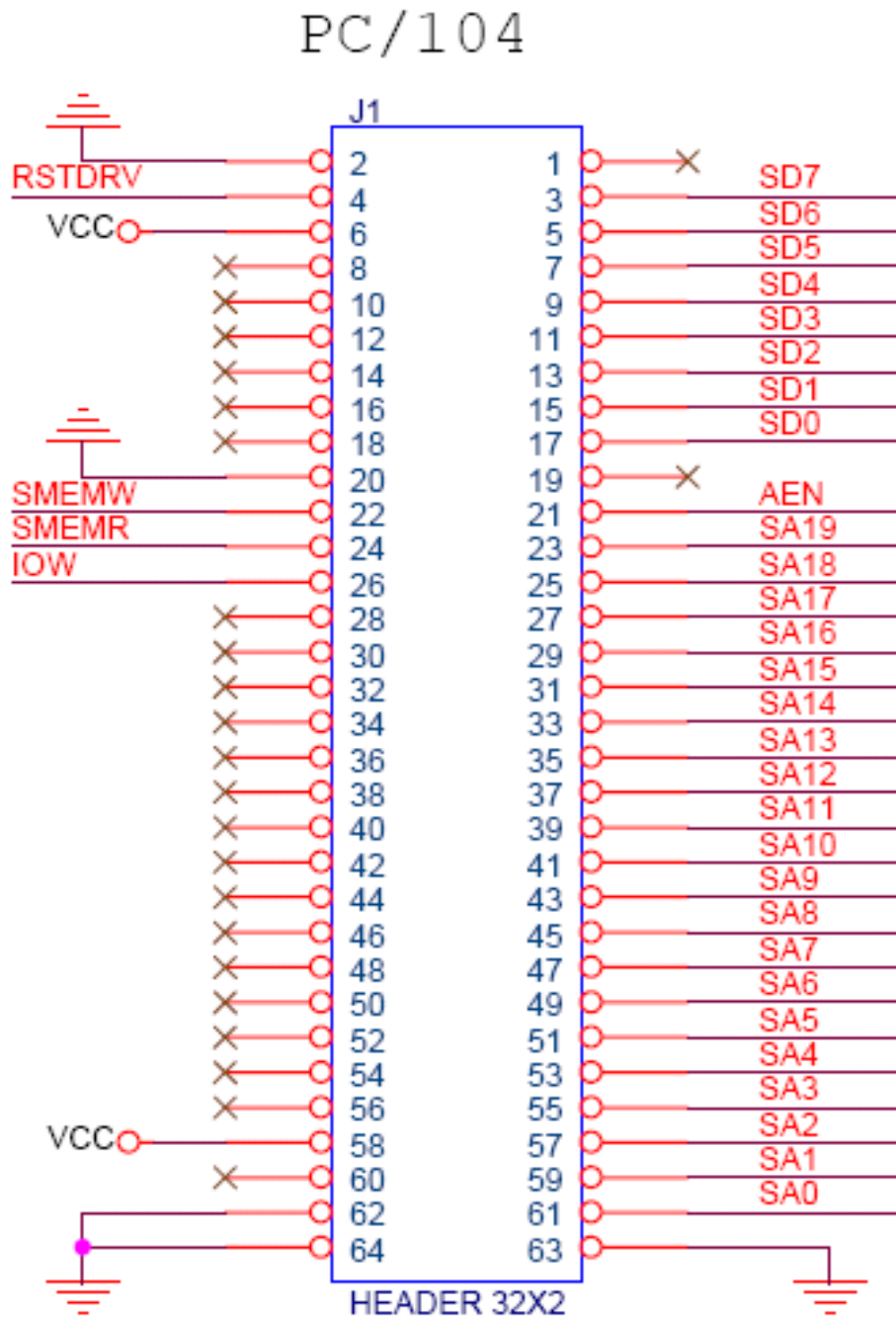
J3: Type Select

Memory Type	1-2	2-3
NV_SRAM	●	
SRAM		●

Chapter 3

Connectors

J1: PC/104 connector





DMP

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 器 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

Technical Data Sheet

Product Name	ICOP-4087 DM27	Doc.No.	QMT950037R00
Product Description	PC/104 NV_SRAM / SRAM 128KB / 512KB * 4	Doc. Category	Confidential
		Issued Date	03-31-2006

Production Test Procedure (測試指導書)

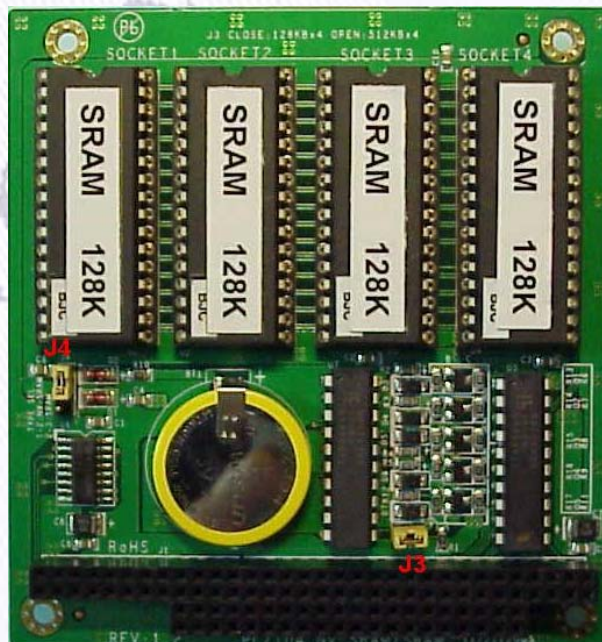
Jumper setting & Test procedure

A. SRAM 128K

A-1. Jumper setting

FLASH DISK Type		J3	J4
✓	SRAM 128K	Short	2-3
	SRAM 512K	Open	2-3
	NVSRAM 128K	Short	1-2
	NVSRAM 512K	Open	1-2

SRAM 128K in U1.U2.U3.U4 and Item is Sony CX581000AP-70LL





DM&P

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 譽 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

A-2. Test procedure

- i. Operate **SRAMCARD.EXE** , Emulates drive B , Please see as below .
(If you want to Emulates drive A , drive number can choose [1] A :)

```
C:\TEST\TESTDATA\4087>srancard
DM&P SRAM card programmer Ver.Nov 1 2005
Copyright (C) 2005 by DM&P Group. All rights reserved.

Please select SRAM/NUSRAM size:
[1] 128K*8 [2] 512K*8
[1 - 2]:: 1 --> 128K*8 ..... SRAM size please choose 128K * 8

Please select number pcs SRAM/NUSRAM installed:
[1] 1pcs [2] 2pcs [3] 3pcs [4] 4pcs
[1 - 4]:: 4 --> 4pcs ..... SRAM quantity please choose 4 pcs

Please select the simulate drive number:
[1] A: [2] B:
[1 - 2]:: 2 --> B: ..... driver number can choose
simulate [1] A: or [2] B:

MAX cylinder size = 62
Check sum = 80
Completed!
```

- ii. Reboot and Operate **Format B : / S / U** , Please see as below .

```
C:\TEST\TESTDATA\4087>format b:/s/u
Insert new diskette for drive B: ..... If you want to Emulates drive A
and press ENTER when ready... Operate Format A : / S / U

Formatting 504K ..... SRAM capacity is 504K
Format complete.
System transferred

Volume label (11 characters, ENTER for none)?

505,344 bytes total disk space
200,704 bytes used by system
304,640 bytes available on disk

512 bytes in each allocation unit.
595 allocation units available on disk.

Volume Serial Number is 3047-1ADC

Format another (Y/N)?_
```



DMP

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 營 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

iii. Operate SRAMTEST.EXE and do the SRAM Read / Write test ◦

After you execute SRAMTEST.EXE file ◦ the original data of SRAM will be cleaned ◦

Hardware define 64K as 1 page ◦ So 512K bytes SRAM will divide into 8 Pages ◦

Finally ◦ you will see the test complete on the screen ◦

```
C:\TEST\TESTDATA\4087>scramtest
DMP SRAM card tester Ver.Apr 25 2005
Copyright (C) 2005 by DMP Group. All rights reserved.

Please select SRAM/MUSRAM size:
[1] 128K*8 [2] 512K*8
[1 - 2]:: 1 --> 128K*8 ..... SRAM size please choose 128K * 8

Please select number pcs SRAM/MUSRAM installed:
[1] 1pcs [2] 2pcs [3] 3pcs [4] 4pcs
[1 - 4]:: 4 --> 4pcs ..... SRAM quantity please choose 4 pcs

Do quick test?
[1] No [2] Yes ..... If you don't want to do quick test
[1 - 2]:: you can choose [1] No

Press Ctrl-Break to Stop.
Testing Page 0
Checking D000:0000
Testing Page 1
Checking D000:0000
Testing Page 2
Checking D000:0000
Testing Page 3
Checking D000:0000
Testing Page 4
Checking D000:0000
Testing Page 5
Checking D000:0000
Testing Page 6
Checking D000:0000
Testing Page 7
Checking D000:0000
Test complete!
```




DMP

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 器 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

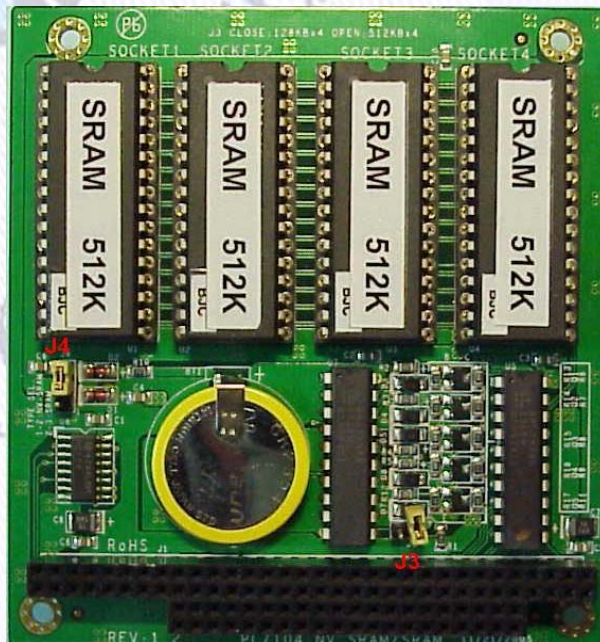
Jumper setting & Test procedure

B. SRAM 512K

B-1. Jumper setting

FLASH DISK Type		J3	J4
SRAM	128K	Short	2-3
✓ SRAM	512K	Open	2-3
NVSRAM	128K	Short	1-2
NVSRAM	512K	Open	1-2

SRAM 512K in U1.U2.U3.U4 and Item is [HITACHI HM628512LFP-7](#)





DM&P

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 譽 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

B-2. Test procedure

i. Operate **SRAMCARD.EXE** , Emulates drive A , Please see as below .

(If you want to Emulates drive B , drive number can choose [2] B :)

```
C:\TEST\TESTDATA\4087>srancard
DM&P SRAM card programmer Ver.Nov 1 2005
Copyright (C) 2005 by DM&P Group. All rights reserved.

Please select SRAM/NUSRAM size:
[1] 128K*8 [2] 512K*8
[1 - 2]:: 2 --> 512K*8 ..... SRAM size please choose 512 K * 8

Please select number pcs SRAM/NUSRAM installed:
[1] 1pcs [2] 2pcs [3] 3pcs [4] 4pcs
[1 - 4]:: 4 --> 4pcs ..... SRAM quantity please choose 4 pcs

Please select the simulate drive number:
[1] A: [2] B:
[1 - 2]:: 1 --> A: ..... driver number can choose
simulate [1] A: or [2] B:

MAX cylinder size = 254
Check sum = c1
Completed!
```

ii. Reboot and Operate **Format A : / S / U** , Please see as below .

```
C:\TEST\TESTDATA\4087>format a:/s/u
Insert new diskette for drive A: ..... If you want to Emulates drive B,
and press ENTER when ready... Operate Format B : / S / U

Formatting 2.04M
Format complete. .... SRAM capacity is 2.04M
System transferred

Volume label (11 characters, ENTER for none)?

2,068,992 bytes total disk space
200,704 bytes used by system
1,868,288 bytes available on disk

512 bytes in each allocation unit.
3,649 allocation units available on disk.

Volume Serial Number is 3C81-17FF

Format another (Y/N)?_
```




DM&P

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 營 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

iii. Operate SRAMTEST.EXE and do the SRAM Read / Write test .

After you execute SRAMTEST.EXE file , the original data of SRAM will be cleaned ,

Hardware define 64K as 1 page , So 2M bytes SRAM will divide into 32 Pages .

Finally , you will see the test complete on the screen .

```
C:\TEST\TESTDATA\4087>srantest
DM&P SRAM card tester Ver.Apr 25 2005
Copyright (C) 2005 by DM&P Group. All rights reserved.

Please select SRAM/NUSRAM size:
[1] 128K*8 [2] 512K*8
[1 - 2]:: 2 --> 512K*8
SRAM size please choose 512 K * 8

Please select number pcs SRAM/NUSRAM installed:
[1] 1pcs [2] 2pcs [3] 3pcs [4] 4pcs
[1 - 4]:: 4 --> 4pcs
SRAM quantity please choose 4 pcs

Do quick test?
[1] No [2] Yes
[1 - 2]::
If you don't want to do quick test
you can choose [1] No

Press Ctrl-Break to Stop.
Testing Page 0
Checking 0000:0000
Testing Page 1
Checking 0000:0000
Testing Page 2
Checking 0000:0000
Testing Page 3
Checking 0000:0000
Testing Page 4
Checking 0000:0000
Testing Page 5
Checking 0000:0000
Testing Page 6
Checking 0000:0000
Testing Page 7
Checking 0000:0000
Testing Page 8
Checking 0000:0000
Testing Page 9
Checking 0000:0000
Testing Page 10
Checking 0000:0000
Testing Page 11
Checking 0000:0000
Testing Page 12
Checking 0000:0000
Testing Page 13
Checking 0000:0000
Testing Page 14
Checking 0000:0000
Testing Page 15
Checking 0000:0000
Testing Page 16
Checking 0000:0000
Testing Page 17
Checking 0000:0000
Testing Page 18
Checking 0000:0000
Testing Page 19
Checking 0000:0000
Testing Page 20
Checking 0000:0000
Testing Page 21
Checking 0000:0000
Testing Page 22
Checking 0000:0000
Testing Page 23
Checking 0000:0000
Testing Page 24
Checking 0000:0000
Testing Page 25
Checking 0000:0000
Testing Page 26
Checking 0000:0000
Testing Page 27
Checking 0000:0000
Testing Page 28
Checking 0000:0000
Testing Page 29
Checking 0000:0000
Testing Page 30
Checking 0000:0000
Testing Page 31
Checking 0000:0000
Test complete!
```




DMP

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 器 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

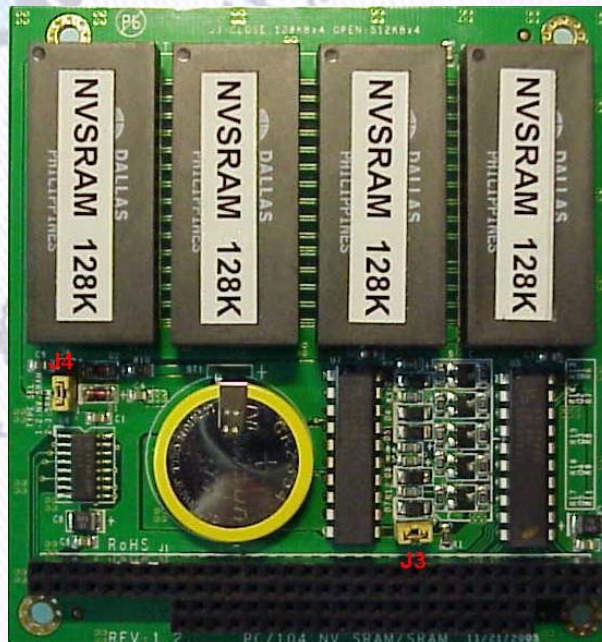
Jumper setting & Test procedure

C. NVSRAM 128K

C-1. Jumper setting

FLASH DISK Type		J3	J4
SRAM	128K	Short	2-3
SRAM	512K	Open	2-3
✓ NVSRAM	128K	Short	1-2
NVSRAM	512K	Open	1-2

NVSRAM 128K in U1.U2.U3.U4 and Item is [Dallas-DS1245Y-100](#)





DM&P

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 營 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

C-2. Test procedure

- i. Operate **SRAMCARD.EXE** , Emulates drive B , Please see as below .
(If you want to Emulates drive A , drive number can choose [1] A :)

```
C:\TEST\TESTDATA\4087>srancard
DM&P SRAM card programmer Ver.Nov  1 2005
Copyright (C) 2005 by DM&P Group. All rights reserved.

Please select SRAM/NVRAM size:
[1] 128K*8 [2] 512K*8
[1 - 2]:: 1 --> 128K*8

Please select number pcs SRAM/NVRAM installed:
[1] 1pcs [2] 2pcs [3] 3pcs [4] 4pcs
[1 - 4]:: 4 --> 4pcs

Please select the simulate drive number:
[1] A: [2] B:
[1 - 2]:: 2 --> B:

MAX cylinder size = 62
Check sum = 80
Completed!
```

- ii. Reboot and Operate **Format B : / S / U** , Please see as below .

```
C:\TEST\TESTDATA\4087>format b:/s/u
Insert new diskette for drive B:
and press ENTER when ready...

Formatting 504K
Format complete.
System transferred

Volume label (11 characters, ENTER for none)?

505,344 bytes total disk space
200,704 bytes used by system
304,640 bytes available on disk

512 bytes in each allocation unit.
595 allocation units available on disk.

Volume Serial Number is 3047-1ADC

Format another (Y/N)?_
```




DM&P

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 營 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

iii. Operate SRAMTEST.EXE and do the NVSRAM Read / Write test ◦

After you execute SRAMTEST.EXE file ◦ the original data of NVSRAM will be cleaned ◦

Hardware define 64K as 1 page ◦ So 512K bytes NVSRAM will divide into 8 Pages ◦

Finally ◦ you will see the test complete on the screen ◦

```
C:\TEST\TESTDATA\4087>srantest
DM&P SRAM card tester Ver.Apr 25 2005
Copyright (C) 2005 by DM&P Group. All rights reserved.

Please select SRAM/MUSRAM size:
[1] 128K*8 [2] 512K*8
[1 - 2]:: 1 --> 128K*8 ..... NVSRAM size please choose 128K * 8

Please select number pcs SRAM/MUSRAM installed:
[1] 1pcs [2] 2pcs [3] 3pcs [4] 4pcs
[1 - 4]:: 4 --> 4pcs ..... NVSRAM quantity please choose 4 pcs

Do quick test?
[1] No [2] Yes ..... If you don't want to do quick test
[1 - 2]:: you can choose [1] No

Press Ctrl-Break to Stop.
Testing Page 0
Checking D000:8000
Testing Page 1
Checking D000:8000
Testing Page 2
Checking D000:8000
Testing Page 3
Checking D000:8000
Testing Page 4
Checking D000:8000
Testing Page 5
Checking D000:8000
Testing Page 6
Checking D000:8000
Testing Page 7
Checking D000:8000
Test complete!
```



DMP

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 器 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

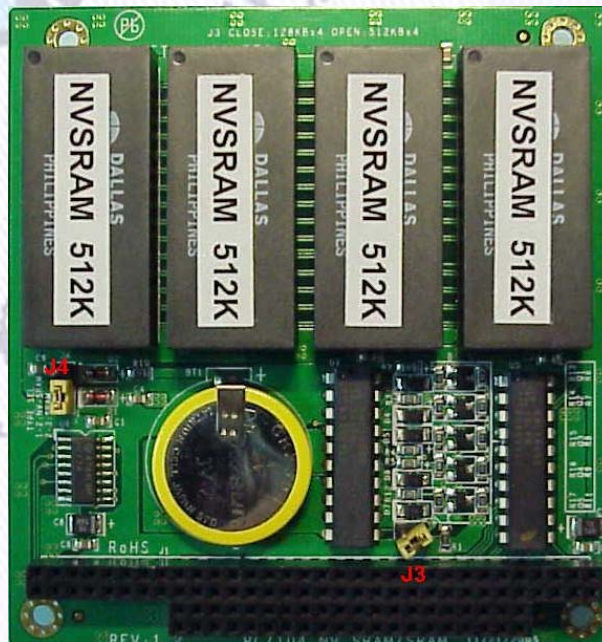
Jumper setting & Test procedure

D. NVSRAM 512K

D-1. Jumper setting

FLASH DISK Type		J3	J4
SRAM	128K	Short	2-3
SRAM	512K	Open	2-3
NVSRAM	128K	Short	1-2
▼	NVSRAM 512K	Open	1-2

NVSRAM 512K in U1.U2.U3.U4 and Item is Dallas-DS1250Y-100





DM&P

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 營 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

D-2. Test procedure

i. Operate **SRAMCARD.EXE** , Emulates drive A , Please see as below .

(If you want to Emulates drive B , drive number can choose [2] B :)

```
C:\TEST\TESTDATA\4087>srancard
DM&P SRAM card programmer Ver.Nov 1 2005
Copyright (C) 2005 by DM&P Group. All rights reserved.

Please select SRAM/NUSRAM size:
[1] 128K*8 [2] 512K*8
[1 - 2]:: 2 --> 512K*8 .....> NVSRAM size please choose 512 K * 8

Please select number pcs SRAM/NUSRAM installed:
[1] 1pcs [2] 2pcs [3] 3pcs [4] 4pcs
[1 - 4]:: 4 --> 4pcs .....> NVSRAM quantity please choose 4 pcs

Please select the simulate drive number:
[1] A: [2] B:
[1 - 2]:: 1 --> A: .....> driver number can choose
simulate [1] A: or [2] B:

MAX cylinder size = 254
Check sum = c1
Completed!
C:\TEST\TESTDATA\4087>
```

ii. Reboot and Operate **Format A : / S / U** , Please see as below .

```
C:\TEST\TESTDATA\4087>format a:/s/u
Insert new diskette for drive A: .....> If you want to Emulates drive B,
and press ENTER when ready... Operate Format B : / S / U

Formatting 2.04M
Format complete. ....> NVSRAM capacity is 2.04M
System transferred

Volume label (11 characters, ENTER for none)?

2,068,992 bytes total disk space
208,704 bytes used by system
1,860,288 bytes available on disk

512 bytes in each allocation unit.
3,649 allocation units available on disk.

Volume Serial Number is 3C81-17FF

Format another (Y/N)?_
```




DM&P

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 營 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

iii. Operate SRAMTEST.EXE and do the NVSRAM Read / Write test ◦

After you execute SRAMTEST.EXE file ◦ the original data of SRAM will be cleaned ◦

Hardware define 64K as 1 page ◦ So 2M bytes NVSRAM will divide into 32 Pages ◦

Finally ◦ you will see the test complete on the screen ◦

```
C:\TEST\TESTDATA\4087>srantest
DM&P SRAM card tester Ver.Apr 25 2005
Copyright (C) 2005 by DM&P Group. All rights reserved.

Please select SRAM/NVRAM size:
[1] 128K*8 [2] 512K*8
[1 - 2]:: 2 --> 512K*8
NVSRAM size please choose 512 K * 8

Please select number pcs SRAM/NVRAM installed:
[1] 1pcs [2] 2pcs [3] 3pcs [4] 4pcs
[1 - 4]:: 4 --> 4pcs
NVSRAM quantity please choose 4 pcs

Do quick test?
[1] No [2] Yes
[1 - 2]::
If you don't want to do quick test
you can choose [1] No
Press Ctrl-Break to Stop.
Testing Page 0
Checking D000:0000
Testing Page 1
Checking D000:0000
Testing Page 2
Checking D000:0000
Testing Page 3
Checking D000:0000
Testing Page 4
Checking D000:0000
Testing Page 5
Checking D000:0000
Testing Page 6
Checking D000:0000
Testing Page 7
Checking D000:0000
Testing Page 8
Checking D000:0000
Testing Page 9
Checking D000:0000
Testing Page 10
Checking D000:0000
Testing Page 11
Checking D000:0000
Testing Page 12
Checking D000:0000
Testing Page 13
Checking D000:0000
Testing Page 14
Checking D000:0000
Testing Page 15
Checking D000:0000
Testing Page 16
Checking D000:0000
Testing Page 17
Checking D000:0000
Testing Page 18
Checking D000:0000
Testing Page 19
Checking D000:0000
Testing Page 20
Checking D000:0000
Testing Page 21
Checking D000:0000
Testing Page 22
Checking D000:0000
Testing Page 23
Checking D000:0000
Testing Page 24
Checking D000:0000
Testing Page 25
Checking D000:0000
Testing Page 26
Checking D000:0000
Testing Page 27
Checking D000:0000
Testing Page 28
Checking D000:0000
Testing Page 29
Checking D000:0000
Testing Page 30
Checking D000:0000
Testing Page 31
Checking D000:0000
Test complete!
```



DMP

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 器 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

Technical Data Sheet

Product Name	ICOP-4087 DM27	Doc.No.	QMT950037R00
Product Description	PC/104 NV_SRAM / SRAM 128KB / 512KB * 4	Doc. Category	Confidential
		Issued Date	03-31-2006

Production Test Procedure (測試指導書)

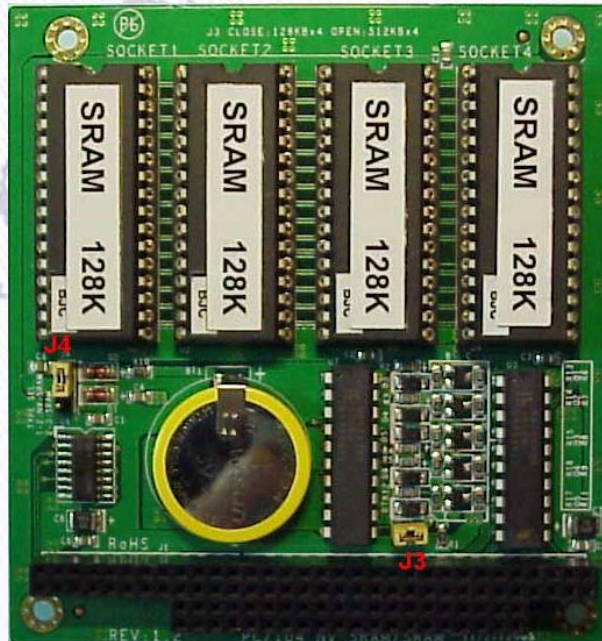
Jumper setting & Test procedure

A. SRAM 128K

A-1. Jumper setting

FLASH DISK Type		J3	J4
✓	SRAM 128K	Short	2-3
	SRAM 512K	Open	2-3
	NVSRAM 128K	Short	1-2
	NVSRAM 512K	Open	1-2

SRAM 128K in U1.U2.U3.U4 and Item is Sony CX581000AP-70LL





DM&P

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 譽 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

A-2. Test procedure

- i. Operate **SRAMCARD.EXE** , Emulates drive B , Please see as below .
(If you want to Emulates drive A , drive number can choose [1] A :)

```
C:\TEST\TESTDATA\4087>srancard
DM&P SRAM card programmer Ver.Nov 1 2005
Copyright (C) 2005 by DM&P Group. All rights reserved.

Please select SRAM/NUSRAM size:
[1] 128K*8 [2] 512K*8
[1 - 2]:: 1 --> 128K*8 ..... SRAM size please choose 128K * 8

Please select number pcs SRAM/NUSRAM installed:
[1] 1pcs [2] 2pcs [3] 3pcs [4] 4pcs
[1 - 4]:: 4 --> 4pcs ..... SRAM quantity please choose 4 pcs

Please select the simulate drive number:
[1] A: [2] B:
[1 - 2]:: 2 --> B: ..... driver number can choose
simulate [1] A: or [2] B:

MAX cylinder size = 62
Check sum = 80
Completed!
```

- ii. Reboot and Operate **Format B : / S / U** , Please see as below .

```
C:\TEST\TESTDATA\4087>format b:/s/u
Insert new diskette for drive B: ..... If you want to Emulates drive A
and press ENTER when ready... Operate Format A : / S / U

Formatting 504K ..... SRAM capacity is 504K
Format complete.
System transferred

Volume label (11 characters, ENTER for none)?

505,344 bytes total disk space
200,704 bytes used by system
304,640 bytes available on disk

512 bytes in each allocation unit.
595 allocation units available on disk.

Volume Serial Number is 3847-1ADC

Format another (Y/N)?_
```




DMP

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 營 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

iii. Operate SRAMTEST.EXE and do the SRAM Read / Write test ◦

After you execute SRAMTEST.EXE file ◦ the original data of SRAM will be cleaned ◦

Hardware define 64K as 1 page ◦ So 512K bytes SRAM will divide into 8 Pages ◦

Finally ◦ you will see the test complete on the screen ◦

```
C:\TEST\TESTDATA\4087>scramtest
DMP SRAM card tester Ver.Apr 25 2005
Copyright (C) 2005 by DMP Group. All rights reserved.

Please select SRAM/MUSRAM size:
[1] 128K*8 [2] 512K*8
[1 - 2]:: 1 --> 128K*8 ..... SRAM size please choose 128K * 8

Please select number pcs SRAM/MUSRAM installed:
[1] 1pcs [2] 2pcs [3] 3pcs [4] 4pcs
[1 - 4]:: 4 --> 4pcs ..... SRAM quantity please choose 4 pcs

Do quick test?
[1] No [2] Yes ..... If you don't want to do quick test
[1 - 2]:: you can choose [1] No

Press Ctrl-Break to Stop.
Testing Page 0
Checking D000:0000
Testing Page 1
Checking D000:0000
Testing Page 2
Checking D000:0000
Testing Page 3
Checking D000:0000
Testing Page 4
Checking D000:0000
Testing Page 5
Checking D000:0000
Testing Page 6
Checking D000:0000
Testing Page 7
Checking D000:0000
Test complete!
```



DMP

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 器 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

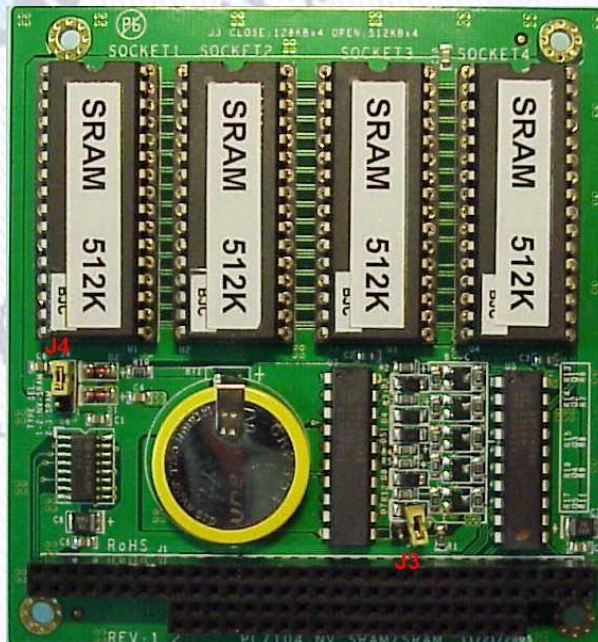
Jumper setting & Test procedure

B. SRAM 512K

B-1. Jumper setting

FLASH DISK Type		J3	J4
SRAM	128K	Short	2-3
✓ SRAM	512K	Open	2-3
NVSRAM	128K	Short	1-2
NVSRAM	512K	Open	1-2

SRAM 512K in U1.U2.U3.U4 and Item is [HITACHI HM628512LFP-7](#)





DM&P

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 譽 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

B-2. Test procedure

- i. Operate **SRAMCARD.EXE** , Emulates drive A , Please see as below .
(If you want to Emulates drive B , drive number can choose [2] B :)

```
C:\TEST\TESTDATA\4087>srancard
DM&P SRAM card programmer Ver.Nov 1 2005
Copyright (C) 2005 by DM&P Group. All rights reserved.

Please select SRAM/NUSRAM size:
[1] 128K*8 [2] 512K*8
[1 - 2]:: 2 --> 512K*8 ..... SRAM size please choose 512 K * 8

Please select number pcs SRAM/NUSRAM installed:
[1] 1pcs [2] 2pcs [3] 3pcs [4] 4pcs
[1 - 4]:: 4 --> 4pcs ..... SRAM quantity please choose 4 pcs

Please select the simulate drive number:
[1] A: [2] B:
[1 - 2]:: 1 --> A: ..... driver number can choose
simulate [1] A: or [2] B:

MAX cylinder size = 254
Check sum = c1
Completed!
```

- ii. Reboot and Operate **Format A : / S / U** , Please see as below .

```
C:\TEST\TESTDATA\4087>format a:/s/u
Insert new diskette for drive A: ..... If you want to Emulates drive B,
and press ENTER when ready... Operate Format B : / S / U

Formatting 2.04M
Format complete. .... SRAM capacity is 2.04M
System transferred

Volume label (11 characters, ENTER for none)?

2,068,992 bytes total disk space
200,704 bytes used by system
1,868,288 bytes available on disk

512 bytes in each allocation unit.
3,649 allocation units available on disk.

Volume Serial Number is 3C81-17FF

Format another (Y/N)?_
```




DM&P

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 營 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

iii. Operate SRAMTEST.EXE and do the SRAM Read / Write test .

After you execute SRAMTEST.EXE file , the original data of SRAM will be cleaned ,

Hardware define 64K as 1 page , So 2M bytes SRAM will divide into 32 Pages .

Finally , you will see the test complete on the screen .

```
C:\TEST\TESTDATA\4087>srantest
DM&P SRAM card tester Ver.Apr 25 2005
Copyright (C) 2005 by DM&P Group. All rights reserved.

Please select SRAM/NUSRAM size:
[1] 128K*8 [2] 512K*8
[1 - 2]:: 2 --> 512K*8
SRAM size please choose 512 K * 8

Please select number pcs SRAM/NUSRAM installed:
[1] 1pcs [2] 2pcs [3] 3pcs [4] 4pcs
[1 - 4]:: 4 --> 4pcs
SRAM quantity please choose 4 pcs

Do quick test?
[1] No [2] Yes
[1 - 2]::
If you don't want to do quick test
you can choose [1] No

Press Ctrl-Break to Stop.
Testing Page 0
Checking 0000:0000
Testing Page 1
Checking 0000:0000
Testing Page 2
Checking 0000:0000
Testing Page 3
Checking 0000:0000
Testing Page 4
Checking 0000:0000
Testing Page 5
Checking 0000:0000
Testing Page 6
Checking 0000:0000
Testing Page 7
Checking 0000:0000
Testing Page 8
Checking 0000:0000
Testing Page 9
Checking 0000:0000
Testing Page 10
Checking 0000:0000
Testing Page 11
Checking 0000:0000
Testing Page 12
Checking 0000:0000
Testing Page 13
Checking 0000:0000
Testing Page 14
Checking 0000:0000
Testing Page 15
Checking 0000:0000
Testing Page 16
Checking 0000:0000
Testing Page 17
Checking 0000:0000
Testing Page 18
Checking 0000:0000
Testing Page 19
Checking 0000:0000
Testing Page 20
Checking 0000:0000
Testing Page 21
Checking 0000:0000
Testing Page 22
Checking 0000:0000
Testing Page 23
Checking 0000:0000
Testing Page 24
Checking 0000:0000
Testing Page 25
Checking 0000:0000
Testing Page 26
Checking 0000:0000
Testing Page 27
Checking 0000:0000
Testing Page 28
Checking 0000:0000
Testing Page 29
Checking 0000:0000
Testing Page 30
Checking 0000:0000
Testing Page 31
Checking 0000:0000
Test complete!
```



DMP

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 器 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

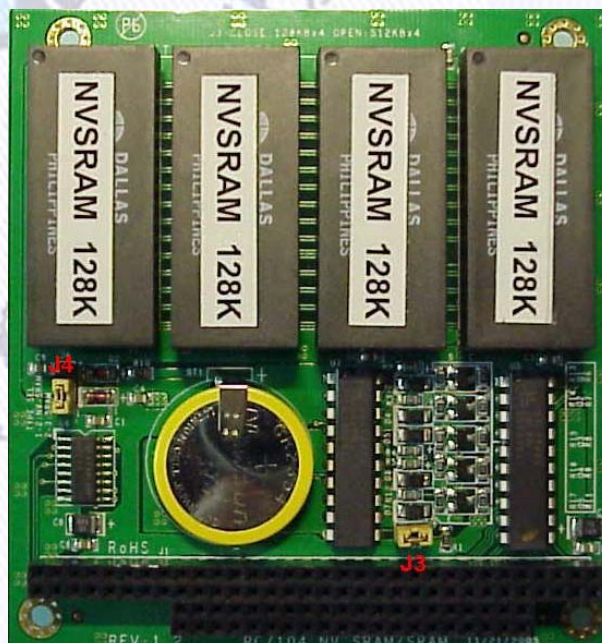
Jumper setting & Test procedure

C. NVSRAM 128K

C-1. Jumper setting

FLASH DISK Type		J3	J4
SRAM	128K	Short	2-3
SRAM	512K	Open	2-3
✓ NVSRAM	128K	Short	1-2
NVSRAM	512K	Open	1-2

NVSRAM 128K in U1.U2.U3.U4 and Item is [Dallas-DS1245Y-100](#)





DM&P

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 營 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

C-2. Test procedure

- i. Operate **SRAMCARD.EXE** , Emulates drive B , Please see as below .
(If you want to Emulates drive A , drive number can choose [1] A :)

```
C:\TEST\TESTDATA\4087>srancard
DM&P SRAM card programmer Ver.Nov 1 2005
Copyright (C) 2005 by DM&P Group. All rights reserved.

Please select SRAM/NVRAM size:
[1] 128K*8 [2] 512K*8
[1 - 2]:: 1 --> 128K*8

Please select number pcs SRAM/NVRAM installed:
[1] 1pcs [2] 2pcs [3] 3pcs [4] 4pcs
[1 - 4]:: 4 --> 4pcs

Please select the simulate drive number:
[1] A: [2] B:
[1 - 2]:: 2 --> B:

MAX cylinder size = 62
Check sum = 80
Completed!
```

- ii. Reboot and Operate **Format B : / S / U** , Please see as below .

```
C:\TEST\TESTDATA\4087>format b:/s/u
Insert new diskette for drive B:
and press ENTER when ready...

Formatting 504K
Format complete.
System transferred

Volume label (11 characters, ENTER for none)?

505,344 bytes total disk space
200,704 bytes used by system
304,640 bytes available on disk

512 bytes in each allocation unit.
595 allocation units available on disk.

Volume Serial Number is 3047-1ADC

Format another (Y/N)?_
```



DM&P

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 營 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

iii. Operate SRAMTEST.EXE and do the NVSRAM Read / Write test ◦

After you execute SRAMTEST.EXE file ◦ the original data of NVSRAM will be cleaned ◦

Hardware define 64K as 1 page ◦ So 512K bytes NVSRAM will divide into 8 Pages ◦

Finally ◦ you will see the test complete on the screen ◦

```
C:\TEST\TESTDATA\4087>srantest
DM&P SRAM card tester Ver.Apr 25 2005
Copyright (C) 2005 by DM&P Group. All rights reserved.

Please select SRAM/MUSRAM size:
[1] 128K*8 [2] 512K*8
[1 - 2]:: 1 --> 128K*8 ..... NVSRAM size please choose 128K * 8

Please select number pcs SRAM/MUSRAM installed:
[1] 1pcs [2] 2pcs [3] 3pcs [4] 4pcs
[1 - 4]:: 4 --> 4pcs ..... NVSRAM quantity please choose 4 pcs

Do quick test?
[1] No [2] Yes ..... If you don't want to do quick test
[1 - 2]:: you can choose [1] No

Press Ctrl-Break to Stop.
Testing Page 0
Checking D000:8000
Testing Page 1
Checking D000:8000
Testing Page 2
Checking D000:8000
Testing Page 3
Checking D000:8000
Testing Page 4
Checking D000:8000
Testing Page 5
Checking D000:8000
Testing Page 6
Checking D000:8000
Testing Page 7
Checking D000:8000
Test complete!
```




DMP

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 器 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

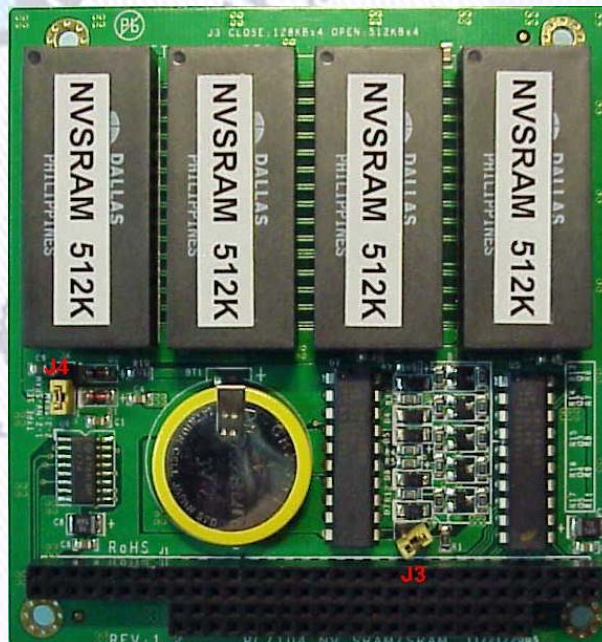
Jumper setting & Test procedure

D. NVSRAM 512K

D-1. Jumper setting

FLASH DISK Type		J3	J4
SRAM	128K	Short	2-3
SRAM	512K	Open	2-3
NVSRAM	128K	Short	1-2
▼	NVSRAM 512K	Open	1-2

NVSRAM 512K in U1.U2.U3.U4 and Item is Dallas-DS1250Y-100





DM&P

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 營 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

D-2. Test procedure

- i. Operate **SRAMCARD.EXE** , Emulates drive A , Please see as below .
(If you want to Emulates drive B , drive number can choose [2] B :)

```
C:\TEST\TESTDATA\4087>srancard
DM&P SRAM card programmer Ver.Nov 1 2005
Copyright (C) 2005 by DM&P Group. All rights reserved.

Please select SRAM/NUSRAM size:
[1] 128K*8 [2] 512K*8
[1 - 2]:: 2 --> 512K*8 .....> NVSRAM size please choose 512K*8

Please select number pcs SRAM/NUSRAM installed:
[1] 1pcs [2] 2pcs [3] 3pcs [4] 4pcs
[1 - 4]:: 4 --> 4pcs .....> NVSRAM quantity please choose 4 pcs

Please select the simulate drive number:
[1] A: [2] B:
[1 - 2]:: 1 --> A: .....> driver number can choose
simulate [1] A: or [2] B:

MAX cylinder size = 254
Check sum = c1
Completed!
C:\TEST\TESTDATA\4087>
```

- ii. Reboot and Operate **Format A : / S / U** , Please see as below .

```
C:\TEST\TESTDATA\4087>format a:/s/u
Insert new diskette for drive A: .....> If you want to Emulates drive B,
and press ENTER when ready... Operate Format B : / S / U

Formatting 2.04M
Format complete. ....> NVSRAM capacity is 2.04M
System transferred

Volume label (11 characters, ENTER for none)?

2,068,992 bytes total disk space
208,704 bytes used by system
1,860,288 bytes available on disk

512 bytes in each allocation unit.
3,649 allocation units available on disk.

Volume Serial Number is 3C81-17FF

Format another (Y/N)?_
```




DM&P

JAN YIN CHAN ELECTRONICS CO., LTD

瞻 營 全 電 子 股 份 有 限 公 司

8F, No.12, Wu-Quan 7 Rd., Wu-Gu Industrial Park, Wu Gu Xiang, Taipei #248, Taiwan, R.O.C.

iii. Operate SRAMTEST.EXE and do the NVSRAM Read / Write test ◦

After you execute SRAMTEST.EXE file ◦ the original data of SRAM will be cleaned ◦

Hardware define 64K as 1 page ◦ So 2M bytes NVSRAM will divide into 32 Pages ◦

Finally ◦ you will see the test complete on the screen ◦

```
C:\TEST\TESTDATA\4087>srantest
DM&P SRAM card tester Ver.Apr 25 2005
Copyright (C) 2005 by DM&P Group. All rights reserved.

Please select SRAM/NVRAM size:
[1] 128K*8 [2] 512K*8
[1 - 2]:: 2 --> 512K*8
NVSRAM size please choose 512 K * 8

Please select number pcs SRAM/NVRAM installed:
[1] 1pcs [2] 2pcs [3] 3pcs [4] 4pcs
[1 - 4]:: 4 --> 4pcs
NVSRAM quantity please choose 4 pcs

Do quick test?
[1] No [2] Yes
[1 - 2]::
If you don't want to do quick test
you can choose [1] No
Press Ctrl-Break to Stop.
Testing Page 0
Checking D000:0000
Testing Page 1
Checking D000:0000
Testing Page 2
Checking D000:0000
Testing Page 3
Checking D000:0000
Testing Page 4
Checking D000:0000
Testing Page 5
Checking D000:0000
Testing Page 6
Checking D000:0000
Testing Page 7
Checking D000:0000
Testing Page 8
Checking D000:0000
Testing Page 9
Checking D000:0000
Testing Page 10
Checking D000:0000
Testing Page 11
Checking D000:0000
Testing Page 12
Checking D000:0000
Testing Page 13
Checking D000:0000
Testing Page 14
Checking D000:0000
Testing Page 15
Checking D000:0000
Testing Page 16
Checking D000:0000
Testing Page 17
Checking D000:0000
Testing Page 18
Checking D000:0000
Testing Page 19
Checking D000:0000
Testing Page 20
Checking D000:0000
Testing Page 21
Checking D000:0000
Testing Page 22
Checking D000:0000
Testing Page 23
Checking D000:0000
Testing Page 24
Checking D000:0000
Testing Page 25
Checking D000:0000
Testing Page 26
Checking D000:0000
Testing Page 27
Checking D000:0000
Testing Page 28
Checking D000:0000
Testing Page 29
Checking D000:0000
Testing Page 30
Checking D000:0000
Testing Page 31
Checking D000:0000
Test complete!
```

Warranty

This product is warranted to be in good working order for a period of one year from the date of purchase. Should this product fail to be in good working order at any time during this period, we will, at our option, replace or repair it at no additional charge except as set forth in the following terms. This warranty does not apply to products damaged by misuse, modifications, accident or disaster. Vendor assumes no liability for any damages, lost profits, lost savings or any other incidental or consequential damage resulting from the use, misuse of, or inability to use this product. Vendor will not be liable for any claim made by any other related party. Return authorization must be obtained from the vendor before returned merchandise will be accepted. Authorization can be obtained by calling or faxing the vendor and requesting a Return Merchandise Authorization (RMA) number. Returned goods should always be accompanied by a clear problem description.