



eSP Series

Application Notes

ELAN MICROELECTRONICS CORP.

Document Number : **AP-eSP-0036E-V1**

Date of Issue : **February 2006**

Issue Version : **1.0**


Supported Chips : **eSP020;**
eSP020A; eSP040A;
eSP080A

Applicable Software : **None**



Trademark Acknowledgments:

IBM is a registered trademark and PS/2 is a trademark of IBM.
Windows is a trademark of Microsoft Corporation.

ELAN and ELAN logo  are trademarks of ELAN Microelectronics Corporation.

Copyright © 2005 by ELAN Microelectronics Corporation

All Rights Reserved

Printed in Taiwan

The contents of this document are subject to change without further notice. ELAN Microelectronics assumes no responsibility concerning the accuracy, adequacy, or completeness of this document. ELAN Microelectronics makes no commitment to update, or to keep current the information and material contained in this document. Such information and material may change to conform to actual needs of the concerned product.

In no event shall ELAN Microelectronics be made responsible for any claims attributed to errors, omissions, or other inaccuracies in the information or material contained in this document. ELAN Microelectronics shall not be liable for direct, indirect, special incidental, or consequential damages arising from the use of such information or material.

The software (if any) described in this document is furnished under a license or nondisclosure agreement, and may be used or copied only in accordance with the terms of such agreement.

ELAN Microelectronics products are not intended for use in life support appliances, devices, or systems. Use of ELAN Microelectronics product in such applications is not supported and is prohibited.

NO PART OF THIS DOCUMENT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE EXPRESSED WRITTEN PERMISSION OF ELAN MICROELECTRONICS.



ELAN MICROELECTRONICS CORPORATION

Headquarters:

No. 12, Innovation Road 1
Hsinchu Science Park
Hsinchu, Taiwan 30077
Tel: +886 3 563-9977
Fax: +886 3 563-9966
<http://www.emc.com.tw>

Hong Kong:

Elan (HK) Microelectronics Corporation, Ltd.
Rm. 1005B, 10/F Empire Centre
68 Mody Road, Tsimshatsui
Kowloon, HONG KONG
Tel: +852 2723-3376
Fax: +852 2723-7780
elanhk@emc.com.hk

USA:

Elan Information Technology Group
1821 Saratoga Ave., Suite 250
Saratoga, CA 95070
USA
Tel: +1 408 366-8223
Fax: +1 408 366-8220

Europe:

Elan Microelectronics Corp. (Europe)

Siewerdtstrasse 105
8050 Zurich, SWITZERLAND
Tel: +41 43 299-4060
Fax: +41 43 299-4079
<http://www.elan-europe.com>

Shenzhen:

Elan Microelectronics Shenzhen, Ltd.

SSMEC Bldg., 3F, Gaoxin S. Ave.
Shenzhen Hi-Tech Industrial Park
Shenzhen, Guangdong, CHINA
Tel: +86 755 2601-0565
Fax: +86 755 2601-0500

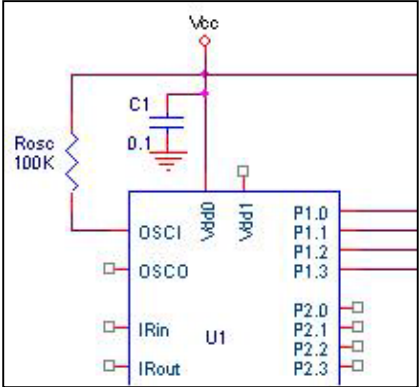
Shanghai:

Elan Microelectronics Shanghai Corporation, Ltd.

23/Bldg. #115 Lane 572, Bibo Road
Zhangjiang Hi-Tech Park
Shanghai, CHINA
Tel: +86 021 5080-3866
Fax: +86 021 5080-4600

1 What difference of eSPxxx/eSPxxxA:

- The eSP020 only support Fosc=3.58MHz & 4MHz with internal Rosc or Crystal.
- The eSP020A/eSP040A/eSP080A support Fosc=3.58MHz & 4MHz with internal Rosc or crystal ; & support Fosc=6MHz with external 100K Rosc or 6MHz Crystal.

| Fosc at project select | eSP020 | eSP020A eSP040A eSP080A |
|------------------------|--------------------------------|--|
| 3.58MHz | Internal Rosc (by code option) | Internal Rosc (by code option) |
| | 3.58MHz Crystal (external) | 3.58MHz Crystal (external) |
| 4MHz | Internal Rosc (by code option) | Internal Rosc (by code option) |
| | 4MHz Crystal (external) | 4MHz Crystal (external) |
| 6MHz | Not Support ! | <p>With External Rosc R=100K</p>  |
| | | 6MHz Crystal (external) |

2 eSP series power noise inhibition:

- eSP series provide the Low Power Reset function, So use at the low battery heave loading application (like drive motor/speaker at two AA Batteries). Please keep the Power line Noise inhibitive.
User can add a 10uF~100uF capacitor to absorb the noise by heave loading.

