
ESW5210/5211

27MHz FSK Receiver

**Product
Specification**

Doc. VERSION 1.0

ELAN MICROELECTRONICS CORP.


June 2008



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 © 2008 by ELAN Microelectronics Corporation

All Rights Reserved

Printed in Taiwan

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

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 specification. 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 specification 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 SPECIFICATION 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 308
Tel: +886 3 563-9977
Fax: +886 3 563-9966
<http://www.emc.com.tw>

Hong Kong:

Elan (HK) Microelectronics Corporation, Ltd.
Flat A, 19F., World Tech Centre
95 How Ming Street, Kwun Tong
Kowloon, HONG KONG
Tel: +852 2723-3376
Fax: +852 2723-7780

USA:

Elan Information Technology Group (U.S.A.)
P.O. Box 601
Cupertino, CA 95015
U.S.A.
Tel: +1 408 366-8225
Fax: +1 408 366-8225

Shenzhen:

Elan Microelectronics Shenzhen, Ltd.
3F, SSMEC Bldg., Gaoxin S. Ave. I
Shenzhen Hi-tech Industrial Park
(South Area), Shenzhen
CHINA 518057
Tel: +86 755 2601-0565
Fax: +86 755 2601-0500
elan-sz@elanic.com.cn

Shanghai:

Elan Microelectronics Shanghai, Ltd.
#23, Zone 115, Lane 572, Bibo Rd.
Zhangjiang Hi-Tech Park
Shanghai, CHINA 201203
Tel: +86 21 5080-3866
Fax: +86 21 5080-4600
elan-sh@elanic.com.cn



Contents

2	Feature Description	1
3	Application	1
4	Block Diagram	1
5	Pin Configuration	2
5.1	Pin Assignment	2
5.2	Pin Descriptions	2
6	Function Description	3
6.1	Mixer and Limiter	3
6.2	VCO	3
6.3	PLL	3
6.4	Channel Selections	4
6.4.1	ESW5210	4
6.4.2	ESW5211	4
6.4.3	Channel Clock Timing	5
7	Absolute Operation Maximum Ratings	5
8	DC/AC Electrical Characteristic	6
9	Application Circuit	7
9.1	ESW5210	7
9.1	ESW5211	8
10	Components List	9
11	Packaging Reference	10
12	Receiver Demo Board Introduction	11
12.1	Top View	11
12.2	Bottom View	12



Specification Revision History

Version	Revision Description	Date
1.0	Initial Release Edition	2000/06/05

1 Introduction

The ESW5210/5211 single-chip solution is an integrated circuit intended for use as a low cost FSK receiver to establish a frequency-agile RF link. The device is designed to provide a 10-channel receiver and intended for digital (FSK) modulated applications in the wireless Mouse and Keyboard. The chip operates at 2.7V minimum and is expressly designed for low power consumption. It offers synthesizer with a typical channel spacing of approximately 30KHz to allow narrow-band applications.

2 Feature Description

- On-Chip Phase-Locked Loop (PLL)
- Include oscillation circuit with external X-TAL (4.0MHz).
- Standby mode for power saving.
- 2.7 to 5.5V power supply range

3 Application

- Wireless Mouse
- Wireless Keyboard
- Wireless Communication Products

4 Block Diagram

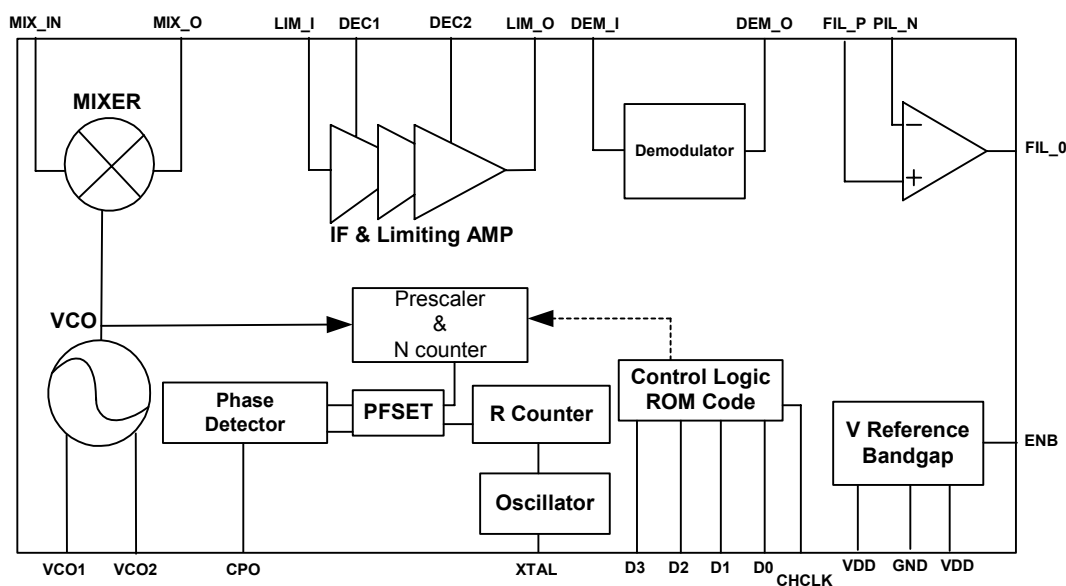


Figure 4-1 ESW5210/5211 Block Diagram