10/100 MBIT/S ETHERNET SWITCH ERRATA

PM3351

ELAN 1X100

10/100 MBIT/S ETHERNET SWITCH

REVISION B DEVICE ERRATA

ISSUE 1: APRIL 1998
PRELIMINARY



10/100 MBIT/S ETHERNET SWITCH ERRATA

CONTENTS

1	ISSL	JE 1 ERRATA	1
2	FUNCTIONAL DISCREPANCIES OVERVIEW		
3	HAR	DWARE ERRATA	3
	3.1	NONE KNOWN	3
4	DATASHEET ERRATA		
	4.1	FEATURES – PAGE 6	5
	4.2	DPO WINDOWED REGISTER DESCRIPTION – PAGE 248	6
5	CON	ITACTING PMC-SIERRA, INC	7

PMC-Sierra, Inc.

ERRATA PMC-980356

ISSUE 1

10/100 MBIT/S ETHERNET SWITCH ERRATA

1 ISSUE 1 ERRATA

This document is the errata notice for Revision B of the ELAN 1x100 (PM3351-RA) and issue 3 ELAN 1x100 datasheet. The issue 3 ELAN 1x100 datasheet (PMC-970113) and issue 1 errata supersede all prior editions and versions of the datasheet.



10/100 MBIT/S ETHERNET SWITCH ERRATA

FUNCTIONAL DISCREPANCIES OVERVIEW

This section outlines the known functional discrepancies between the PM3351 ELAN 1x100 revision B device and the Issue 3 ELAN 1x100 datasheet. The errata are explained in more detail in following sections. Please note that the errata contained in this document are preliminary.

FUNCTIONAL DISCREPANCIES LIST Table 1

Hardware Errata					
#	Discrepancy	Workaround?	Performance without workaround		
3.1	None known	N/A			

Datasheet Errata		
#	Errata	
4.1	Features	



10/100 MBIT/S ETHERNET SWITCH ERRATA

3 **HARDWARE ERRATA**

This section contains errata which reflects chip level discrepancies.

ISSUE 1

3.1 **None Known**

Description

None known

Software Workaround:

N/A

Performance With Workaround:

N/A



10/100 MBIT/S ETHERNET SWITCH ERRATA

4 DATASHEET ERRATA

The section contains errata in the issue 3 ELAN 1x100 datasheet.

Datasheet Errata Legend

- 1. Unaltered text is unchanged to add context to changes
- 2. New material is bold and italicized
- 3. Obsolete material is struck out
- 4. Comments specific to this document are in italics



10/100 MBIT/S ETHERNET SWITCH ERRATA

4.1 Features – page 6

- Implements the Link Partition function to isolate malfunctioning segments or hosts.
- IEEE 802.1d compliant spanning-tree transparent bridging supported on-chip, with Factory configurable aging time and packet lifetime control.

Aging is implemented with firmware version 2.12. The remainder of 802.1d will be implemented in a future release and will run on a companion PM3350.

• Flow control supported for both full duplex and half duplex operation: supports IEEE 802.3x PAUSE frame flow control in full duplex mode, and Supports user factory enabled backpressure flow control in half duplex mode with configurable buffer thresholds and limits.

Backpressure is implemented with firmware version 2.12. Full duplex flow control will available in a future firmware release. User control of backpressure will be available with the release of the Enterprise MIB scheduled for a future firmware release.

 Configuration, management, MIB statistics and diagnostics available in-band or out of band.

Management capability is not implemented with firmware version 2.12. SNMP will be implemented in a future release but will only run on a companion PM3350.

Maintains and collects per-port and per-host statistics at wire rates, allowing a network switch comprised of PM3351 and PM3350 chips to implement RMON statistics (EtherStats and HostStats) using an external CPU. PMC supplied on-chip firmware.

The statistics identified above are collected in firmware release 2.12. No on-chip firmware is planned to run RMON. These statistics can be made available to an external CPU for RMON processing. A future firmware release will implement this functionality.

Note: All other references in the datasheet to the features discussed above should be interpreted to reflect the above comments and edits.

10/100 MBIT/S ETHERNET SWITCH ERRATA

4.2 DPO Windowed Register Description - page 248

RSIZE[3:0] (DPO windowed: one per transfer ring): size of the transfer ring. This register value must be static during switch operation and is initialized by the Switch Processor.

<u>Value</u>	Size of Ring
<u>4'd0</u>	32
<u>4'd1</u>	<u>64</u>
4'd2	<u>128</u>
<u>4'd3</u>	<u> 256</u>
<u>4'd4</u>	<u>512</u>
<u>4'd5</u>	1024 (1K)
<u>4'd6</u>	2048 (2K)
<u>4'd7</u>	<u>4K</u>
4'd8	-8K
<u>4'd9</u>	-16K
4'd10	32K
<u>4'd11</u>	-64K
4'd12	-64K
4'd13	-64K
4'd14	64K
4'd15	64K

<u>4'd8</u>	<u>Illegal</u>
4'd9	Illegal
4'd10	Illegal
4'd11	Illegal
4'd12	Illegal
4'd13	Illegal
4'd14	Illegal
4'd15	Illegal

ERRATA PMC-980356

ISSUE 1

10/100 MBIT/S ETHERNET SWITCH ERRATA

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