

LAN8742A/LAN8742Ai Silicon Errata and Data Sheet Clarification

This document describes known anomalies for functional revision A and B of the LAN8742A/LAN8742Ai device. The functional revision can be determined by its top marking as indicated in [Figure 1](#) and [Figure 2](#).

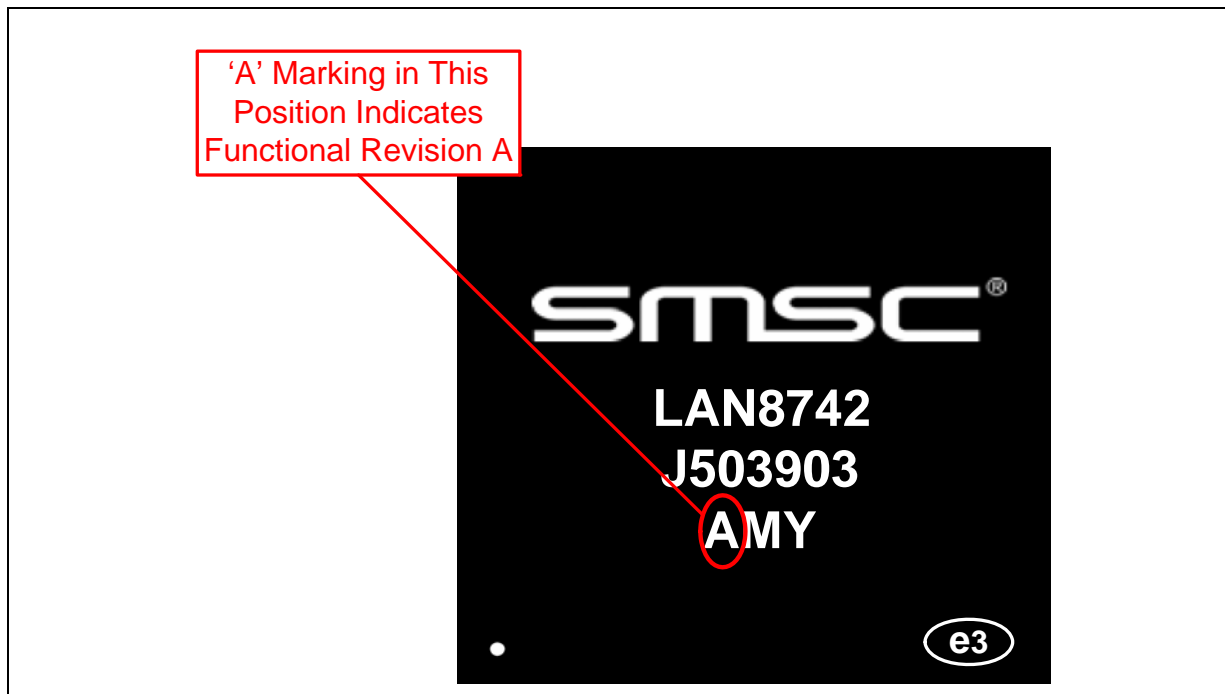
TABLE 1: HARDWARE ERRATAS SUMMARY

HARDWARE FUNCTIONAL REV		DESCRIPTION
A	B	
X		Section Module 1 ; "Cable Diagnostics Incorrectly Returns "Open" Cable Condition for Terminated Cable"

Note: X = Applicable to the Functional Rev.

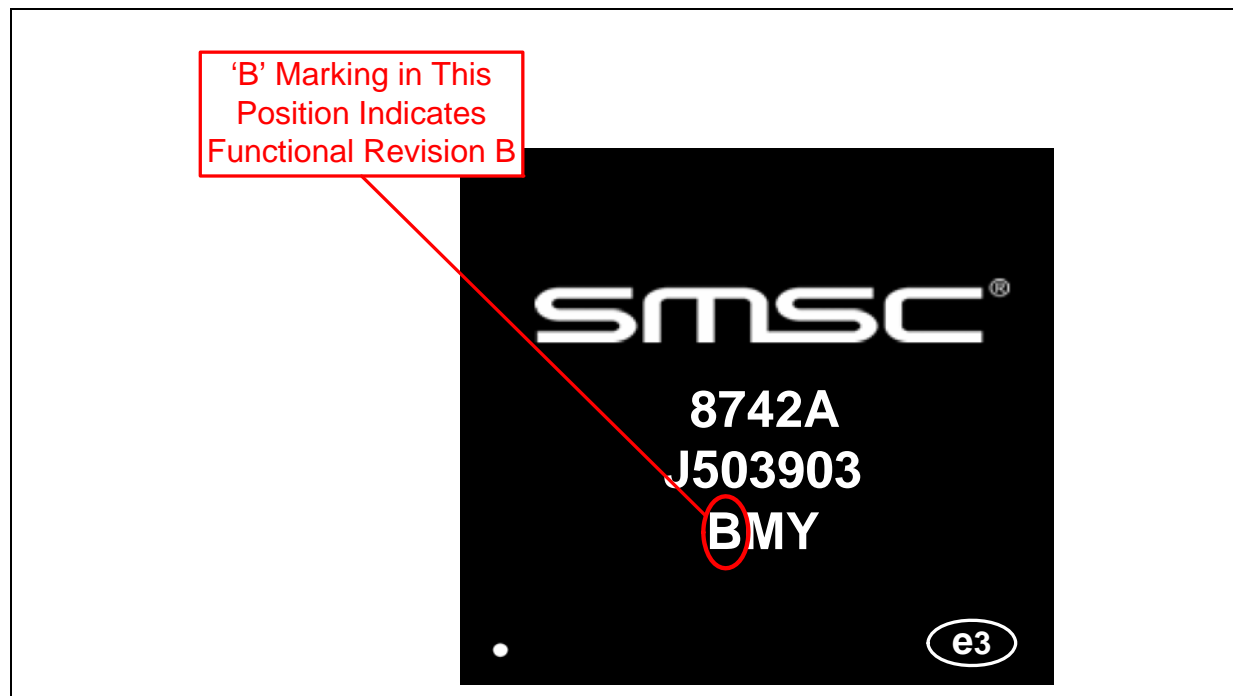
For the purposes of this anomaly sheet, the part number indicated throughout the document includes an "A". Though only functional revision B parts contain an "A" in the device part number, this anomaly sheet also applies to the LAN8742 parts. The "A" in the part number is not indicative of the functional revision. Refer to [Figure 1](#) and [Figure 2](#) for the proper identification of the functional revision of a given device.

FIGURE 1: TOP MARKING FOR FUNCTIONAL REVISION A DEVICE



LAN8742A/LAN8742AI

FIGURE 2: TOP MARKING FOR FUNCTIONAL REVISION B DEVICE



Note: Figure 1 and Figure 2 detail the top markings of example parts. Other than the highlighted revision marking, other top marking values may differ (manufacture date, lot codes, industrial temperature part, etc.)

Module 1: Cable Diagnostics Incorrectly Returns “Open” Cable Condition for Terminated Cable

DESCRIPTION

The TDR Control/Status register bits [10:9] (TDR Channel Cable Type) return 10b indicating an “Open” condition when the cable is properly terminated (connected to a link partner). For a properly terminated cable, this field should return 11b (Match condition).

END USER IMPLICATIONS

The TDR does not return 11b for a properly terminated cable. Short and Open conditions are detected and reported correctly. There are no functional implications associated with this anomaly.

Work around

The following sequence of PHY register writes may be used as a work-around:

Write PHY Register 0x18: 0x9B9D

Write PHY Register 0x0D: 0x001E

Write PHY Register 0x0E: 0x000B

Write PHY Register 0x0D: 0x401E

Write PHY Register 0x0E: 0x0249

Write PHY Register 0x0D: 0x001E

Write PHY Register 0x0E: 0x000C

Write PHY Register 0x0D: 0x401E

Write PHY Register 0x0E: 0x0132

PLAN

This anomaly has been fixed in functional revision B and newer devices.

LAN8742A/LAN8742Ai

APPENDIX A: LAN8742A/LAN8742Ai DOCUMENT REVISION HISTORY

REVISION LEVEL AND DATE	DESCRIPTION
DS80000679A (12-3-15)	Rev A replaces the previous SMSC version Rev. 1.2
Rev. 1.2 (06-03-13)	Added functional revision B information.
Rev. 1.1 (10-17-12)	Updated Section Module 1 ; "Cable Diagnostics Incorrectly Returns "Open" Cable Condition for Terminated Cable," on page 3 including solution information. Co-branded document with Microchip logo, modified legal disclaimer.
Rev. 1.0 (05-14-12)	Initial release

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