

Silicon Errata and Data Sheet Clarification

Hardware Erratas

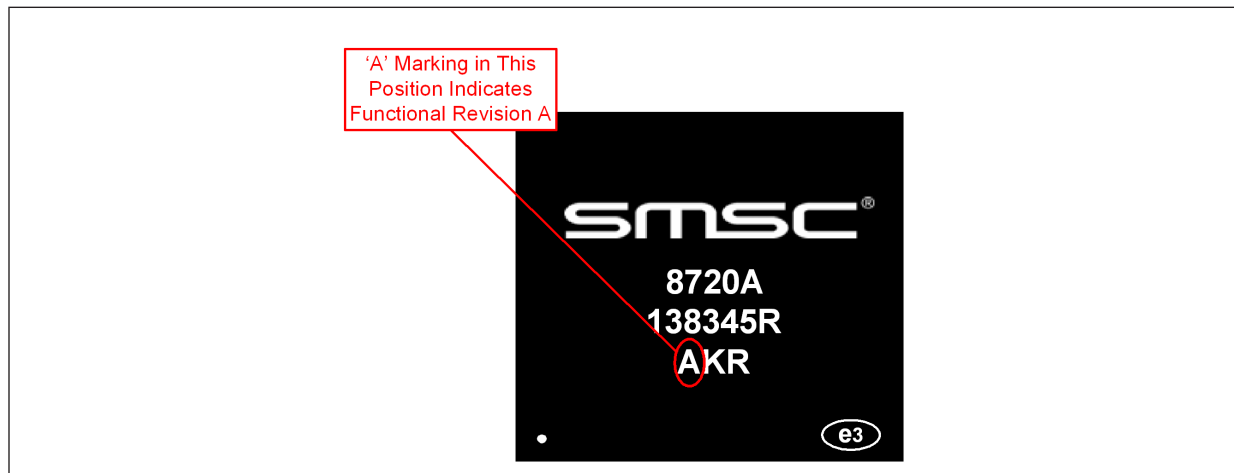
This document describes known anomalies for functional revisions A and B of the LAN8720A/LAN8720Ai device. The functional revision can be determined by its top marking as indicated in [Figure 1](#) and [Figure 2](#).

TABLE 1: HARDWARE ERRATAS SUMMARY

HARDWARE FUNCTIONAL REVS		DESCRIPTION
A	B	
X	X	Anomaly 1 : "Connectivity/Link Issue in Manual Mode"
X	X	Anomaly 2 : "Fast Link Pulse Max Transmit Length Exceeded"

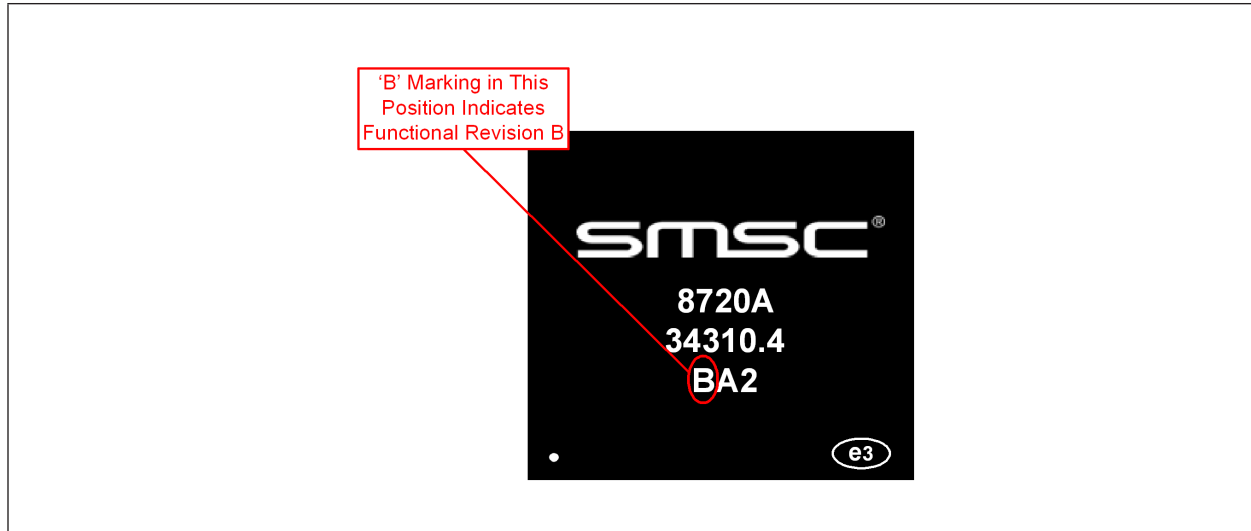
Note: X = Applicable to the Functional Rev.

FIGURE 1: TOP MARKING FOR FUNCTIONAL REVISION A DEVICE



LAN8720A/LAN8720AI

FIGURE 2: TOP MARKING FOR FUNCTIONAL REVISION B DEVICE



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

Anomaly 1: Connectivity/Link Issue in Manual Mode

Description

When the device is in manual 100BASE-TX or 10BASE-T modes with Auto-MDIX enabled, the PHY does not link to a link partner that is configured for auto-negotiation.

End User Implications

The device will not link with an auto-negotiation PHY when auto-MDIX is enabled and the device is configured to be limited to 100BASE-TX or 10BASE-T.

Work around

If the device is configured to be limited to 100BASE-TX or 10BASE-T, ensure that auto-MDIX is disabled via bit 15 of SMI register 27 and that the correct TX and RX channels are selected via bit 13 of register 27.

Plan

This will not be addressed in a future stepping of the device.

Anomaly 2: Fast Link Pulse Max Transmit Length Exceeded

Description

UNH compliance testing observes transmissions from the MDI-X channel of the Device Under Test (DUT). To pass this portion of the test, the DUT must transmit Fast Link Pulses (FLPs) on a single channel for no longer than 704ms. The LAN8720A/LAN8720Ai was observed to occasionally transmit in MDI-X mode for up to 722.199ms.

End User Implications

Since FLPs are sent continuously until the transmit and receive channels are established, this anomaly has no impact on any end user application.

Work around

None.

Plan

This will not be addressed in a future stepping of the device.

APPENDIX A: DOCUMENT REVISION HISTORY

Revision Level & Date	Section/Figure/Entry	Correction
Note: DS80000626A replaces the previous SMSC version, revision 1.1 (11-28-12)		

LAN8720A/LAN8720AI

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