



Release Notes

InfiniScale MT43132 Firmware

Rev 5.6.0 (Corrected on 26-Mar-2006)

Mellanox Technologies

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InfiniScale MT43132 Firmware Release Notes

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1 Introduction

The firmware in this package complements the InfiniScale MT43132 chip architecture with a set of advanced features, enabling easy and remote management of all its relevant blocks. The set of features provided in this package covers not only the mandatory requirements defined by the IBTA regarding SMA and GSA services, but also includes some optional and vendor specific services beyond the specification.

Note: This firmware release supports only the InfiniScale MT43132 switch chip.

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2 Tested Switch Systems

The following table lists the switches that were tested with this firmware release and were approved by the MQAS (Mellanox QA System).

Table 1 - Switch Systems Tested

Board Name	Make	Description
F-X430066 (Stallion)	Flextronics	8 4X IB port switch system
MTS9600 (Gazelle)	Mellanox Technologies	96 4X IB port switch system

- The switch type is selected either by clicking the autodetect button in the EMT tool or by selecting the appropriate board from the boards list tab of EMT^{1, 2}.
- Under the “boards/images” directory you will find pre-built images for Stallion and Gazelle.

3 Major Changes and Supported New Features

- Activity port LEDs of the Stallion (8 port) Switch will now blink upon data transfer through the ports.

1. The default boards list in EMT contains only the BUFFALO board. The other systems can be found in an XML file located in this release package under “boards/boards.xml”. Use the advance tab widget in EMT to load the boards configuration file.

2. It is possible to use MFT to burn both switches as well.

4 UnSupported Features

The following features are not supported in this release:

- Baseboard Management Agent (BMA)

5 Required Hardware

- Supported I2C-compatible Bus Master devices: *MTUSB-1 Dimux* or *ISA Calibre*

6 Required Mellanox Tools

The following are the requirements for the MST tools running on switch platforms based on the InfiniScale MT43132 device.

- MST 1.4.4 and above

The Mellanox eburn tool additionally runs on the PPC_8XX and PPC platforms. For complete information about the requirements for Mellanox Software tools, see the Mellanox Software Tools Release Notes for MST version 1.4.8.¹

7 SMA/GSA Attributes

The following tables summarize the attributes supported by the management agents provided in this release.

Table 2 - SMA Supported Attributes

Attribute	Support
Notice	X
NodeDescription	X
NodeInfo	X
SwitchInfo	X
GUIDInfo	X
PortInfo	X
Partition Key Table	X
SLtoVLMappingTable	X
VLArbtration	X
LinearForwardingTable	X
RandomForwardingTable	
MulticastForwardingTable	X
SMInfo	
VendorDiag	X

1. The document can be accessed via <http://docs.mellanox.com> under 'Code Releases/ Tools/ Archive'

Table 2 - SMA Supported Attributes (Continued)

Attribute	Support
LedInfo	X

Table 3 - Performance Management Supported Attributes

Attribute	Support
ClassPortInfo	X
PortSamplesControl	X
PortSamplesResult	X
PortCounters	X

Note: Table 4 (supported BMA attributes) is removed in this corrected file.

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8 Fixed Bugs

None.

9 Known Issues

1 : OpVL Change and Flow Control Update Watchdog

Keywords: OpVL watchdog errata

Description:

Whenever PortInfo:OperationalVLs is modified (by sending PortInfo.Set() SMP) such that the number of operational VLs is reduced, the corresponding InfiniBand port does not disable the flow control watchdog timers for the inactive VLs. For example, if the number of operational VLs is reduced from 8 to 4, the flow control watchdog timers for VLs4-7 remain active.

Impact:

Whenever PortInfo:OperationalVLs is modified (by sending PortInfo.Set() SMP) such that the number of operational VLs is reduced, the corresponding InfiniBand port will continuously retrain the link.

Workaround:

The flow control update watchdog on all ports is disabled.

Internal Reference: 10336

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