



# ATCA-7360

Release Notes

6806800J09D

January 2011

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## Abbreviations

Abbreviation	Description
ATCA AdvancedTCA	Advanced Telecommunications Computing Architecture
CPU	Central Processing Unit
EMC	Electromagnetic Compatibility
ETSI	European Telecommunications Standards Institute
FRU	Field Replaceable Unit
HDD	Hard Disk Drive
IP	Internet Protocol
IPMC	Intelligent Platform Management Controller
IPMI	Intelligent Platform Management Interface
LED	Light Emitting Diode
OS	Operating System
PICMG	PCI Industrial Computer Manufacturers Group
PCB	Printed Circuit Board
RTM	Rear Transition Module
SAS	Serial Attached SCSI
ShMC	Shelf Management Controller
SOL	Serial over LAN
SSD	Solid State Disk

## Summary of Changes

Part Number	Publication Date	Description
6806800J09D	January 2011	Updated Release Notes for ATCA-7360
6806800J09C	March 2010	Release Notes for GA Removed RTM release notes
6806800J09B	February 2010	Updated GA version
6806800J09A	January 2010	Release Notes for GA

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# 1 Introduction

This document refers to the ATCA-7360 and all related products. Please read it carefully before installing and using it.

Please be aware of the following known limitations and important information associated with the ATCA-7360 at the time of the release of this product.

## 1.1 Purpose of this Document

This document describes the release notes for ATCA-7360 General Availability release.

## 1.2 Format of the Delivery

The ATCA-7360 is delivered including BIOS and IPMI firmware.

For a description of the packages please refer to [Content of the Release](#).

## 2 Content of the Release

### 2.1 Hardware Content

These Release Notes are applicable to the following blades and components:

Table 1 Hardware Content

Product Name	Description
ATCA-7360-0GB	ATCA processor blade, dual L5518 quad-core (2.13 GHz), 0GB, 10G support
ATCA-7360-12GB	ATCA processor blade, dual L5518 quad-core (2.13 GHz), 6X 2GB, 10G support
ATCA-7360-24GB	ATCA processor blade, dual L5518 quad-core (2.13 GHz), 6X 4GB, 10G support
ATCA-7360-48GB	ATCA processor blade, dual L5518 quad-core (2.13 GHz), 6X 8GB, 10G support
RTM-ATCA-7360	RTM for the ATCA-736X product series, 6x GBE, 2x SAS, 1x optional HDD
RTM-ATCA-7360-L	RTM for the ATCA-736X product series, 2x GBE, 2x SAS, 1x optional HDD
RTM-ATCA-7360-FC	RTM for the ATCA-736X product series, 6x GBE, 2x SAS, 2x FC
ATCA-7360-MEM-2G	2 GB DDR3 VLP memory module for ATCA-736X product series
ATCA-7360-MEM-4G	4 GB DDR3 VLP memory module for ATCA-736X product series
ATCA-7360-MEM-8G	8 GB DDR3 VLP memory module for ATCA-736X product series
ATCA7360-HDD1-SAS	147 GB SAS HDD for the RTM-ATCA-7360
ATCA7360-HDD2-SAS	300 GB SAS HDD for the RTM-ATCA-7360
ATCA7360-HDD3-SATA	80 GB SATA HDD (ext. temp.) for the RTM-ATCA-7360
ATCA7360-MMOD-SATA1	32 GB on-board solid state disk at SATA for ATCA-736X product series
ATCA7360-MMOD-SATA2	64 GB on-board solid state disk at SATA for ATCA-736X product series
ATCA7360-SFMMOD	Reset persistent memory, 16MB SRAM, 64MB Flash for the ATCA-736X product series



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## 2.2 Firmware Content

This section describes the versions of firmware and programmable devices.

*Table 2 Firmware Content*

Firmware	Version
BIOS	1.3.1
IPMI (Front Blade)	2.01.00000006
FPGA	13

### 3 Dependency Notes

- BIOS upgrade via **ipmitool** and hpm.1 BIOS image is supported with IPMI firmware version 2.01.00000006 or newer.  
Older IPMI firmware versions are not compatible with the hpm.1 BIOS file format. A BIOS upgrade with ipmitool on boards with older IPMI firmware versions can result in a corrupt BIOS flash content. One known indication of a corrupt BIOS flash image is a missing front panel Ethernet device.  
Please ensure upgrading first the IPMI firmware before upgrading the BIOS firmware.
- BIOS version 1.3.0 needs for support of extended IPMI error logging IPMI version 2.01.00000005 or later.  
For the extended error logging features BIOS version 1.3.0 needs the IPMI sensors 'Memory', 'Battery' and 'Critical Interrupt'. In older IPMI versions before version 2.01.00000005 these sensors are not present, the extended BIOS error logging features are not available.

## 4 Known Limitations

Table 3 Known Issues

IR	Component	Issue	Description
IR00097123	IPMI (Front Blade)	Cross definition between base channel and SOL channel.	<p><b>Problem:</b> The IPMI LAN channel 5 is attached to base channel 1 and the IPMI LAN channel 6 is attached to base channel 0.</p> <p><b>Implication:</b> None</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with IPMC version 2.01.00000001</p>
IR00099464	IPMI (Front Blade)	Get Partial SEL Entry returns always 16 bytes.	<p><b>Problem:</b> The return count of Get Partial SEL Entry is always 16 bytes.</p> <p><b>Implication:</b> None</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Under Investigation</p>
IR00099465	IPMI (Front Blade)	IPMB Physical sensor doesn't send events on Set Event Receiver.	<p><b>Problem:</b> On IPMI command Set Event Receiver, the IPMB physical sensor doesn't resend the event.</p> <p><b>Implication:</b> None</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with IPMC version 2.00.00000010.</p>
IR00099469	IPMI (Front Blade)	Set FRU Activation (Deactivate) for M3->M6 returns wrong completion code.	<p><b>Problem:</b> For IPMI command Set FRU Activation (Deactivate) in FRU state M3, the IPMC returns a wrong return code.</p> <p><b>Implication:</b> The right hot swap state is already assigned but the return code doesn't reflect this.</p> <p><b>Workaround:</b> None</p>

			<b>Status:</b> Under Investigation
IR00099470	IPMI (Front Blade)	Event Byte 3 of PWR Entry Status sensor differs from the specification.	<p><b>Problem:</b> The third event byte of the PWR Entry Status sensor differs from the specification.</p> <p><b>Implication:</b> None</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with IPMC version 2.00.00000010.</p>
IR00099495	IPMI (Front Blade)	Get Power Level returns Power Draw values 0 for Early Power Draw Levels.	<p><b>Problem:</b> The IPMI Get Power Level command for Power Type 0x02 (Early power draw levels) returns correct Power Level 0x00 after board has powered, but returns 0x00 for the Power Multiplier and both Power Draw values.</p> <p><b>Implication:</b> None</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Under Investigation</p>
IR00099499	BIOS	Loading BIOS defaults with DIP switch settings SW4-3 OFF and SW4-4 ON is not working.	<p><b>Problem:</b> Loading BIOS setup defaults via DIP switch is not working.</p> <p><b>Implication:</b> User cannot load BIOS defaults in case the board is not coming up because of bad BIOS settings.</p> <p><b>Workaround:</b> If BIOS hangs during startup, switch to the alternative BIOS flash bank.</p> <p><b>Status:</b> Fixed with BIOS version 1.3.0.</p>
IR00099500	BIOS	BIOS Recovery mode is not entered with DIP switch settings SW4-3 ON and SW4-4 OFF	<p><b>Problem:</b> BIOS recovery can be used to reprogram a corrupted BIOS image. Entry of the BIOS recovery using the DIP switch is not working.</p> <p><b>Implication:</b> BIOS recovery is not available.</p> <p><b>Workaround:</b> If BIOS hangs during</p>

			<p>startup, switch to the alternative BIOS flash bank, or use BIOS update via IPMC and shelf manager.</p> <p><b>Status:</b> Will be fixed in a future BIOS version.</p>
IR00099501	BIOS	BIOS DMI table structures for DIMM modules are missing manufacturer and serial number fields.	<p><b>Problem:</b> All DMI table structures for DIMM modules (structure 17) have dummy entries for manufacturer and serial number.</p> <p><b>Implication:</b> None</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with BIOS version 1.1.0</p>
IR00099502	BIOS	BIOS setup: CPU ID string is not displayed correctly in CPU Configuration Menu.	<p><b>Problem:</b> In BIOS setup, the CPU ID string is truncated. <b>Implication:</b> Processor type cannot be identified in BIOS setup.</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with BIOS version 1.1.0</p>
IR00099503	BIOS	Fedora 12 Linux installer cannot set boot order when installing Fedora 12 in UEFI mode.	<p><b>Problem:</b> Fedora 12 Linux installer cannot save a new entry in the UEFI BIOS boot manager, which is necessary for booting a UEFI compliant OS.</p> <p><b>Implication:</b> Boot of UEFI compliant operating systems is not supported</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with BIOS version 1.1.1</p>
IR00099505	IPMI (Front Blade)	Event/reading masks in SDRs of “PWR Entry Status” and “Reset Source” have a wrong bit.	<p><b>Problem:</b> In SDRs of sensors “PWR Entry Status” and “Reset Source”, the assertion event mask and the discrete reading mask both have values of 0xFFFF instead of 0x7FFF (bit 15 is reserved to value 0).</p> <p><b>Implication:</b> None</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with IPMC version</p>

			2.00.00000009
IR00099507	IPMI (Front Blade)	Missing entry and wrong bit in entity association record.	<p><b>Problem:</b> Entity ID/Instance 0x2E/0x60 is missing in the existing Entity Association record. Furthermore “Linked Entity Association record exists” flag is set but there is no other record.</p> <p><b>Implication:</b> None</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with IPMC version 2.01.00000004</p>
IR00099544	BIOS	BIOS Rev 1.0.0 causes blocking of SMBus and slow down of IPMC.	<p><b>Problem:</b> Sometimes the IPMC is slowed down and SMBus is blocked. This can cause KCS transfer timeouts.</p> <p><b>Implication:</b> Slow down IPMI host interface (KCS) performance. Possibly wrong DIMM temperature sensor values read by the IPMC.</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with BIOS version 1.1.0</p>
IR00099553	IPMI (Front Blade)	IPMC controller hangs at power up.	<p><b>Problem:</b> In rare cases the IPMC controller reaches a hang condition. Only the watchdog safes the board to boot after a 10-second delay.</p> <p><b>Implication:</b> None</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with IPMC version 2.00.00000010.</p>
IR00099558	BIOS	Linux Intel I/O AT driver reports Unable to derive IRQ.	<p><b>Problem:</b> Linux I/O AT driver ioatdma reports "can't derive routing for PCI INT".</p> <p><b>Implication:</b> Intel I/O Acceleration Technology is not working</p> <p><b>Workaround:</b> None</p>

			<b>Status:</b> Fixed with BIOS version 1.1.1
IR00099589	IPMI (Front Blade)	Device SDR Repository not correctly updated after Firmware update.	<p><b>Problem:</b> After a firmware update, the Device SDR Repository is not updated.</p> <p><b>Implication:</b> Results in old thresholds for some sensors.</p> <p><b>Workaround:</b> Use PP commando to reset the SDR Repository after the update: NetFn: 0x2e Cmd: 0x33 Data: 0x0a 0x40 0x00</p> <p><b>Status:</b> Fixed with IPMC version 2.00.00000010.</p>
IR00099593	IPMI (Front Blade)	Sensor "PWR Entry Status" has multiple asserted event states.	<p><b>Problem:</b> Sensor event doesn't match capability mask.</p> <p><b>Implication:</b> Unknown and not documented events occur.</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with IPMC version 2.01.00000004</p>
IR00099594	BIOS	PXE OPROM reports NVM configuration corrupted after a BIOS upgrade.	<p><b>Problem:</b> After a BIOS upgrade, at times, the PXE Option ROM for front panel Ethernet reports a corrupted NVM configuration. BIOS error message:</p> <p>Initializing Intel(R) Boot Agent GE v1.3.50</p> <p>PXE-E05: The LAN adapter's NVM configuration is corrupted or has not been initialized. The Boot Agent cannot continue.</p> <p><b>Implication:</b> When the problem appears, BIOS cannot boot from the front panel Ethernet.</p> <p><b>Workaround:</b> After a BIOS upgrade, initiate a payload power cycle instead</p>

			<p>of a payload reset.</p> <p><b>Status:</b> Fixed with BIOS version 1.2.0</p>
IR00099616	IPMI (Front Blade)	ATCA-7365 misleadingly identifies itself as ATCA-7360 in its device ID.	<p><b>Problem:</b> Various shelf management software recognize ATCA-7365 as ATCA-7360.</p> <p><b>Implication:</b> The user can't figure out which board is inserted.</p> <p><b>Workaround:</b> To distinguish it's necessary to read the FRU information.</p> <p><b>Status:</b> Will be fixed in future version</p>
IR00099619	BIOS	Linux reports ACPI table checksum error.	<p><b>Problem:</b> Linux reports following error message ACPI Warning: Incorrect checksum in table [SSDT] - 3F, should be 0520090521 tbutils-246 ACPI: SSDT 00000000bf402c18 00264 (v01 AMI CST 00000001 MSFT 03000001)</p> <p><b>Implication:</b> Linux ignores this checksum error Tested kernels: Windriver PNE 3.0, Linux 2.6.31 kernel.org impact on Windows is unknown</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with BIOS version 1.2.0</p>
IR00099621	BIOS	Board hangs after Front Panel Ethernet is disabled in BIOS Menu.	<p><b>Problem:</b> The board hangs when quitting the BIOS setup after the "GbE controller" setup item in "Chipset - Southbridge" is set to disabled.</p> <p><b>Implication:</b> The board has to be power cycled to run again</p> <p><b>Workaround:</b> Power cycle of the board</p> <p><b>Status:</b> Fixed with BIOS version 1.2.0</p>
IR00099623	BIOS	Board Hangs after QPI Speed is changed in BIOS.	<p><b>Problem:</b> The board hang when quitting the BIOS setup after the "QPI Link Speed" setup item in "Chipset -</p>



			<p>Northbridge" is changed.</p> <p><b>Implication:</b> The board has to be power cycled to run again</p> <p><b>Workaround:</b> Power cycle of the board</p> <p><b>Status:</b> Fixed with BIOS version 1.2.0 The Setup Item QPI Link Speed is removed with BIOS version 1.3.0</p>
IR00099641	BIOS	Legacy Serial Redirection problem in DOS prompt.	<p><b>Problem:</b> When booted to DOS prompt, you cannot copy/paste upper and lower case characters to the terminal emulation window. DOS will receive only upper case characters. This problem occurs only when pasted the entire string into the terminal window. Only BIOS version 1.2.0 is affected.</p> <p><b>Implication:</b> Copy/Paste cannot be used when booted to DOS prompt.</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with BIOS version 1.3.0</p>
IR00099684	IPMI (Front Blade)	A BIOS exit with "Save Changes and Reset" turns off the RTM.	<p><b>Problem:</b> If BIOS needs a power cycle a IPMI watchdog command is used for that. The IPMI watchdog power cycle causes a M-state change of the RTM and doesn't power it anymore.</p> <p><b>Implication:</b> RTM stayed off after a BIOS power cycle.</p> <p><b>Workaround:</b> Manual interaction to switch off and on the board is possible.</p> <p><b>Status:</b> Fixed with IPMC version 2.01.00000002</p>
IR00099698	IPMI (Front Blade)	Firmware Progress events are not always stored in the local SEL.	<p><b>Problem:</b> Local SEL missed some payload event.</p> <p><b>Implication:</b> If a sensor already sent an event some of the following events are missed in the local SEL.</p>

			<p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with IPMC version 2.01.00000003</p>
IR00099718	BIOS	ATCA-7360 BIOS sends no Boot Error events in case of no bootable media found.	<p><b>Problem:</b> No Boot Error events are sent to the IPMI controller when no bootable media is found. E.g. PXE boot timeout. The board should send out a Boot Error event and resets itself when no boot device is found.</p> <p><b>Implication:</b> No information about failed boot attempts</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with BIOS version 1.3.1</p>
IR00099724	BIOS	ATCA-7360 BIOS: last event in local SEL is not displayed in setup menu.	<p><b>Problem:</b> The last event in the local SEL is missing in the setup Event Log -&gt; View Local IPMI System Event Log.</p> <p><b>Implication:</b> None</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with BIOS version 1.3.1</p>
IR00104346	BIOS	WHQL 2008R2 SMBIOS test failed, DIMM slot with Size 0.	<p><b>Problem:</b> SMBIOS DMI table reports a nonexistent DIMM slot with size 0. This slot cannot be populated because there is no DIMM socket.</p> <p><b>Implication:</b> None (Windows 2008 Server R2 WHQL test fails)</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with BIOS version 1.1.1</p>
IR00104347	BIOS	7360 WHQL 2008 R2 SMBIOS test failed, Memory ECC not reported in DMI table.	<p><b>Problem:</b> SMBIOS DMI table reports "None" in DMI table structure type 16 for Memory Error Correction. This is wrong; the memory uses ECC error correction.</p> <p><b>Implication:</b> Windows 2008 Server R2 WHQL test fails</p>

			<p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with BIOS version 1.1.0</p>
IR00104350	BIOS	7360 WHQL 2008R2 WHEAHCT test meets blue screen of death issue.	<p><b>Problem:</b> Windows Server 2008R2 WHEAHCT test crashes.</p> <p><b>Implication:</b> Possible crashes when using Windows Hardware Error Architecture (WHEA)</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Fixed with BIOS version 1.1.0</p>
IR00105324	Board Hardware	Power-on threshold of low supply voltage too high (at -41V instead of -39V).	<p><b>Problem:</b> The threshold to power-on the board at low supply voltage doesn't meet the range required by PICMG3.0 R3.0 REQ 4.21 (fully operational at -39V...-72V). At low voltage the input power control circuitry turns the board on at about -41V only.</p> <p><b>Implication:</b> Only board supply voltages higher than -41V supported.</p> <p><b>Workaround:</b> None</p> <p><b>Status:</b> Will be fixed in future. The IPMI sensor "PWR Entry Status" maybe used to find out if the issue has been fixed on a particular board.</p>

# Applicable Documents

## Emerson Network Power Embedded Computing Documentation

Table 4 Emerson Network Power Embedded Computing Documents

Title	Publication Number
ATCA-7360 Installation and Use	6806800J07
RTM-ATCA-7360 Installation and Use	6806800J08
ATCA-7360 Quick Start Guide	6806800J10
ATCA-7360 Safety Notes Summary	6806800J11

You may download the documentation here: [Literature Catalog](#)

## Third-Party Documents

Table 5 Third-Party Documents

Company/Source	Title
Intel <a href="http://www.developer.intel.com/design/servers/ipmi">www.developer.intel.com/design/servers/ipmi</a>	IPMI Specification v2.0
PICMG <a href="http://www.picmg.org/specifications.stm">www.picmg.org/specifications.stm</a>	PICMG 3.0 Revision 1.0 Advanced TCA Base Specification