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PRODUCT BRIEF

Pigeon Point™ BMR-H8S-AMCm-SK Starter Kit Board Management Starter Kit for AdvancedMC™ Module Management Controllers

This Pigeon Point Board Management Starter Kit provides everything you need to quickly and cost-effectively develop compliant and interoperable Module Management Controllers (MMCs) for Advanced Mezzanine Card (AdvancedMC) modules. The kit includes the following:

- Schematics for a complete MMC subsystem, ready for integration/adaptation into the design of your AMC
- Firmware for that subsystem, delivered in source form and with development tools—ready for simple and quick adaptation to the specific requirements of your product.
- Bench top Shelf Manager, Carrier IPM Controller (Carrier IPMC) and MMC hardware so that you can immediately begin the ramp-up process on the IPMI-based management framework of the AdvancedTCA® and AdvancedMC specifications, without waiting for your custom hardware
- One-stop support for hardware, firmware, and software used in developing and delivering your Pigeon Point BMR-based MMC

This reference design defines an MMC for AdvancedMC and is based on H8S microcontrollers from Renesas Technology. Please see the separate *Pigeon Point BMR-H8S-AMCm Product Brief* for more details.

Bench Top MMC

- Can be inserted directly into any compliant AMC slot, including the slot implemented on the BMR-P1AFS-ATCA bench top board (which is based on the Actel Fusion® mixed-signal FPGA) or into the BMR AMC Test Site Board (AMC-TSB), cabled to another compatible BMR bench top board.



Software, Schematics and Documentation Delivered via Secure Website

- Provides specific materials for your company
- Allows instant access to any updated materials that become available



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PARTNER PAGE

Pigeon Point BMR-H8S-AMCm (Module) Release Page

Documentation

- [bmr-h8s-amcm-rn.pdf](#) Release Notes
- [bmr-h8s-amcm-ug.pdf](#) User Guide
- [bmr-h8s-amcm-sa-ts.pdf](#) Software Architecture
- [bmr-h8s-amcm-ha-ts.pdf](#) Hardware Architecture

Hardware Design Materials (schematics, BOM, etc)

- [bmr-h8s-amcm-hwdesign.zip](#) Hardware design files

Pre-Built Images

- [bmr-h8s-amcc-btr2b_carrier_site3.tgz](#) Pre-Built Images for BMR-H8S-ATCA-BTR-2B
- [bmr-h8s-amcm-btr1a_amc.tgz](#) Pre-Built Images for BMR-H8S-AMCm-BTR-1A

Development Environment

- [bmr-h8s-devsoft.iso](#) Dev Env: CD-ROM .iso format (Windows®/Linux®)
- [bmr-h8s-devsoft-linux.tgz](#) Dev Env: Linux only, .tgz format
- [bmr-h8s-devsoft-win.zip](#) Dev Env: Windows only, .zip format
- [hew.txt](#) KPIT GNU Tools and HEW integration note.
- [bmr-h8s-amcm-firmware.tar.gz](#) Source Code in Tar/Gzipped format
- [bmr-h8s-amcm-firmware.zip](#) Source Code in Winzip format

Technical Specifications and User Guide

- *Pigeon Point BMR-H8S-AMCm Hardware Architecture Technical Specification*
- *Pigeon Point BMR-H8S-AMCm Software Architecture Technical Specification*
- *Pigeon Point Board Management Starter Kit User Guide: BMR-H8S-AMCm Edition*

BMR-H8S-AMCm Schematics and Bill of Materials

- Schematics provided in PDF form
- Bill-of-materials provided as an MS Excel spreadsheet; includes materials for both the core reference design and additional parts used on the bench top reference implementation

Readily Adaptable Firmware in Source Code Form

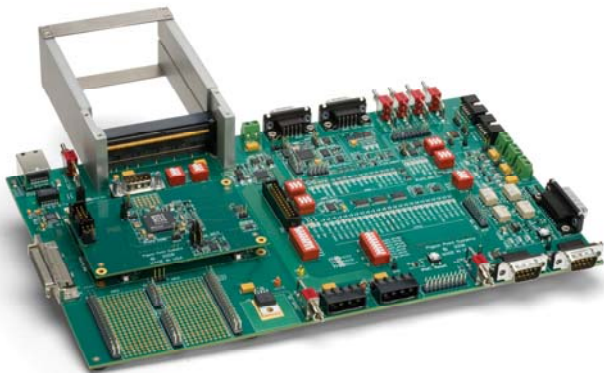
- All mandatory and many optional IPMI/ATCA/AMC commands supported over IPMB-L
- Numerous Pigeon Point extension commands, primarily used over the payload and debug serial interfaces
- Serial interface protocol based on IPMI Terminal mode
- Payload alert notifications over payload interface for sensor events and receipt of reset/shutdown commands
- Sophisticated support for firmware upgrades in the field
- Simple—but highly flexible—configuration of firmware features

Comprehensive H8S Development Environment

- Cross GNU C compiler and binary utilities for H8S architecture
- JTAG-based firmware download using Renesas JTAG emulator tool (the latter purchased separately)
- Supported under both Linux and Windows on x86 hosts
- Alternate firmware download approach via H8S SCI_1 serial interface (typically assigned to serial debug interface) uses built-in functionality of H8S controller
- SCI_1-based firmware download utility h8sprg supplied in source code form, with compiled binary for Windows
- Additional alternate firmware download approach via USB interface that is built into the H8S/2472, using Flash Development Toolkit (FDT) software acquired separately from Renesas

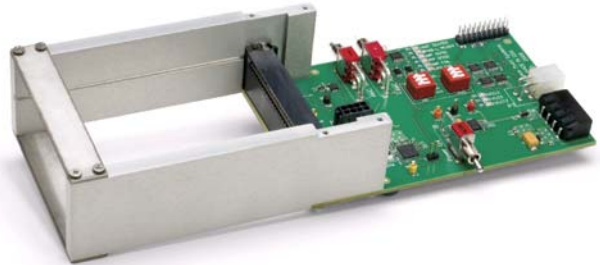
Bench Top Carrier IPMC

- BMR-P1AFS-ATCA bench top board included, to serve as Carrier IPMC
- P1AFS bench top implements an AMC slot that is compatible with the BMR-H8S-AMCm bench top board
- Can be cabled together with a bench top Shelf Manager to form four node bench top ATCA/AMC IPMI management network



Complementary AMC Test Site Board (AMC-TSB)

- Can be cabled to the BMR-P1AFS-ATCA bench top board to allow connecting a second physical AMC
- Alternatively, can be connected to other BMR bench top boards to attach a physical AMC; contact PPS for specific additional AMC-TSB compatible boards
- Management and payload power for the attached AMC are drawn from a separate ATX +12 V feed, not from the IPM controller bench top board
- Not included in Starter Kit; available for separate purchase



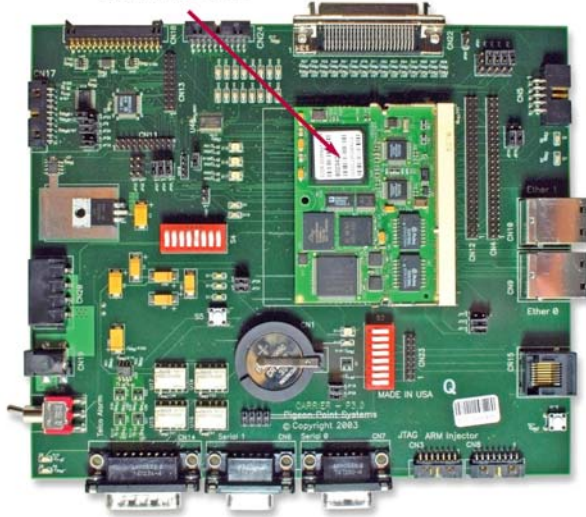
- AMC module inserts between rails of AMC-TSB (BMR-H8S-AMCm bench top board shown)



Bench Top Shelf Manager

- Pigeon Point ShMM-500R Shelf Management Mezzanine with Pigeon Point Shelf Manager pre-installed in flash (see separate product brief for details)
- BTC-100R Bench Top Carrier provides a socket for the ShMM-500R and on-carrier resources similar to an actual in-shelf ShMM-500R carrier.

ShMM-500R



Monterey Linux for ShMM-500

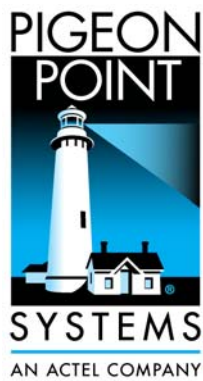
- Au1550 Edition of Monterey Linux; key features for Shelf Manager application include:
 - Based on Linux 2.4.x kernel port
 - Special support for the AMD Au1550 processor and peripherals
- See www.pigeonpoint.com/Library.html#userdocs for a User Guide to the Au1550 Edition of Monterey Linux.

BMR-H8S-AMCm-SKA Starter Kit Add-on

- Requires a separately licensed Board Management Starter Kit (e.g., BMR-P1AFS-ATCA-SK for ATCA IPM Controllers)
- Adds BMR-H8S-AMCm specifications, firmware, and schematics
- Does not include bench top hardware, which can be purchased separately if needed

Ordering Information

BMR-H8S-AMCm-SK	Standalone Board Management Starter Kit for MMCs
BMR-H8S-AMCm-SKA	Add-on Starter Kit for MMC Development (requires separately purchased standalone Board Management Starter Kit)
AMC-TSBR	AdvancedMC Test Site Board that can be cabled to a BMR Carrier IPMC bench top board so that an additional physical AMC can be attached



For more information, visit our website at <http://www.pigeonpoint.com>

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