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PRODUCT BRIEF

Pigeon Point[®] BMR-P1AFS-ATCA-SK Starter Kit Board Management Starter Kit for AdvancedTCA[®] Boards

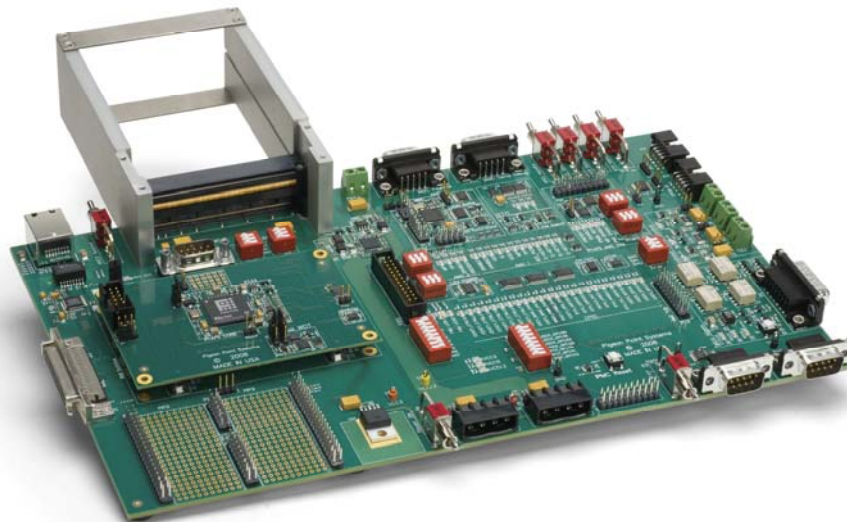
This Pigeon Point Board Management Starter Kit provides everything you need to quickly and cost-effectively develop compliant and interoperable IPM Controllers for AdvancedTCA based on Actel Fusion mixed-signal FPGAs. The kit includes:

- An FPGA design for a Fusion mixed-signal FPGA, implementing the core of an IPM Controller, including a Cortex-M1 ARM processor and supporting peripherals. This design is ready to be adapted for your board or other intelligent Field Replaceable Unit (FRU).
- Schematics for a corresponding IPM Controller subsystem, ready for integration/adaptation into the schematic for your board, with adaptation as necessary.
- 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 and IPM Controller hardware so that you can immediately begin the ramp up process on AdvancedTCA's IPMI-based management framework, without waiting for your custom hardware.
- One-stop support from Pigeon Point Systems for schematics, firmware and software used in developing and delivering your Pigeon Point BMR-based IPM Controller, with complementary support from Actel for the FPGA design.

Supported Fusion mixed-signal FPGAs include the P1AFS600 and P1AFS1500, with FG256 and FG484 packages. Please refer to Actel documentation for details of the differences in capabilities among these devices and see the separate *Pigeon Point BMR-P1AFS-ATCA Product Brief* for more details on the reference design.

Bench top IPM Controller

- Can be cabled together with the bench top Pigeon Point Shelf Manager to form a two-node bench top ATCA IPMI management network.
- Bench top boards provide rich collection of headers, switches and connectors for experimentation in the lab with IPM Controller hardware and firmware operation.
- FPGA prototyping area on bench top board facilitates experimentation with custom extensions to the FPGA design.
- Bench top board includes Carrier IPM Controller-related facilities (such as a physical AMC slot) to support add-on Starter Kit that addresses that controller variant.



Software, FPGA designs, schematics and documentation delivered via secure partner page

- 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-P1AFS-ATCA Release Page

Documentation

- [bmr-p1afs-atca-rn.pdf](#)
- [bmr-p1afs-atca-ug.pdf](#)
- [bmr-p1afs-atca-sa-ts.pdf](#)
- [bmr-p1afs-atca-ha-ts.pdf](#)
- [bmr-p1afs-amcc-atcater-report.tar.gz](#)

Release Notes
User Guide
Software Architecture
Hardware Architecture
Polaris Networks ATCA Tester results

Hardware Design Materials

- [BMR-P1AFS-ATCA-HW-3.0.zip](#)
- [BMR-P1AFS1500-ATCA-FPGA.pdb](#)
- [BMR-P1AFS1500-ATCA-FPGA.zip](#)

BMR-P1AFS-ATCA hardware reference design revision 3.0 (schematics and BOM)
Pre-Built Image: Combined FPGA and firmware image suitable for programming into the supplied bench top board
FPGA design for the P1AFS1500-2FGG484 FPGA as implemented on the supplied bench top IPMC (Actel Libero Project)

Sources

- [bmr-p1afs-acta-fw.tar.gz](#)
- [bmr-p1afs-atca-fw-sc.zip](#)
- [ipmitool-pps.tar.gz](#)

BMR-P1AFS-ATCA firmware sources for Linux
BMR-P1AFS-ATCA firmware sources for SoftConsole.
The IPMI communication utility (ipmitool) source code (HPM.1)

Technical specifications and User Guide

- Pigeon Point BMR-P1AFS-ATCA Hardware Architecture Technical Specification
- Pigeon Point BMR-P1AFS-ATCA Software Architecture Technical Specification
- Pigeon Point Board Management Starter Kit User Guide: BMR-P1AFS-ATCA Edition

BMR-P1AFS-ATCA FPGA design

- FPGA design provided as a Libero IDE project (for use with Actel's Libero IDE FPGA development software, acquired separately)
- FPGA programming database file (PDB) provided for loading the default FPGA design into a P1AFS Fusion device using the Actel FlashPro utility (acquired separately)

BMR-P1AFS-ATCA schematics and bill of materials

- Schematics provided in PDF form
- Bill of materials includes components 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 commands supported over IPMB-0
- Numerous PPS extension commands, primarily used over the payload and debug serial interfaces
- Sophisticated support for firmware upgrades in the field
- Simple—but highly flexible—configuration of firmware features

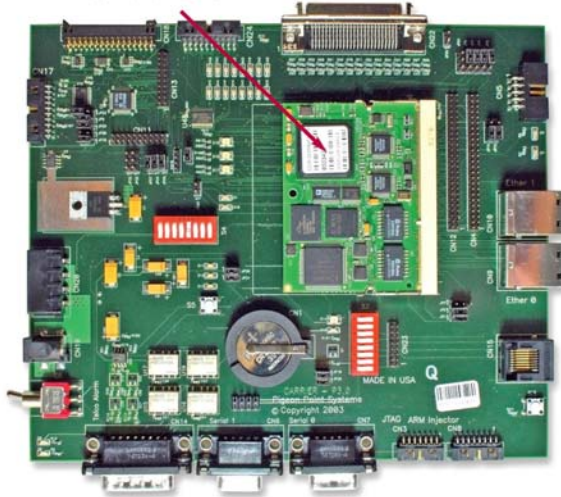
Comprehensive Cortex-M1 development environment

- Cross GNU C compiler and binary utilities for H8S architecture
- Linux-based development environment included with BMR-P1AFS-ATCA Starter Kit and downloadable from CodeSourcery
- Windows-based development environment (the Actel SoftConsole Integrated Development Environment) available for downloading from Actel
- JTAG-based debugging and firmware download using Actel FlashPro3 JTAG programmer (purchased separately)

Bench top Shelf Manager

- Includes Pigeon Point ShMM-500R Shelf Management Mezzanine with Pigeon Point Shelf Manager pre-installed in Flash (see separate product brief for details)
- BTC-100R can be cabled together with the included bench top IPM Controller to form a 2-node bench top ATCA IPMI network

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 core processor and peripherals
- See www.pigeonpoint.com/Library.html#userdocs for a User Guide to the Au1550 Edition of Monterey Linux.

Ordering information

BMR-P1AFS-ATCA-SK	Stand-alone Board Management Starter Kit for ATCA boards and intelligent FRUs
BMR-P1AFS-ATCA-SKA	Board Management Starter Kit Add-on for ATCA boards and intelligent FRUs (purchased as an alternative to BMR-P1AFS-ATCA-SK if another stand-alone ATCA Board Management Starter Kit has already been licensed)
BMR-P1AFS-ATCA-BTR	Bench top implementation of BMR-P1AFS-ATCA reference design



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

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