

ZPC.900C

MPC190 Security Processor Development Board Kit



ZPCI.2900 Quad PMC Carrier Board Features

- 66MHz, 64-bit slots: Monarch CPU and 3 IEEE P1386.1 PMC slots
- 1M byte bank B Flash
- PCI bus arbiter

B900-01 PrPMC800 Monarch PMC Processor Module Features

- 450MHz MPC7410 CPU
- 128MByte PC100 ECC SDRAM memory
- 32MByte FLASH memory
- RS-232 and Bank B Flash ports
- JTAG Debug Port

ZPCI.3900 MPC190 Security Processor PMC Module Features

- Support of algorithms implemented in IPSec, IKE, SSL and WTLS
- Support of Elliptic Curve Cryptography for WAP/WTLS
55- to 511-bit programmable field size
- Support for RSA and Diffie-Hellman algorithms
RSA with 80- to 2048-bit modulus
- Bulk encryption support for DES, 3DES
ECB and CBC modes
2- and 3-key 3DES modes
- Bulk encryption support for RC-4 compatible ARC FOUR
key size from 40 to 128 bits
- Message Authentication using SHA-1 (160 bits), MD-4 and MD-5
(128 bits)
- 32-bit chainable RNG complies with FIPS-140 standards for randomness
- 66MHz, 64-bit PCI Master implements Descriptor Chaining
- 1.8V core, 3.3V I/O, power dissipation <2W

ZPCI.3100 Gigabit Ethernet PMC Module Features

- 66MHz, 64-bit PCI bus master design
- Very high-performance, close to "wire speed" throughput
- On-board cat5 RJ-45 connector connects to existing wiring

MPC190 Software and Driver Support

- VxWorks® driver binaries
- Sample driver source code in ANSI C for easy porting
- Standalone Diagnostics pre-programmed into PrPMC800 CPU Board FLASH Memory
- MPC190-specific modifications to WinNet, IPSec and IKE protocol packages

The **ZPC.900C** Security Processor Development Board kit from Zephyr Engineering, Inc is a complete package for implementing network security applications.

Zephyr Engineering is pleased to support Motorola's exciting line of security processors with the **ZPC.900C** security application development environment. The **ZPC.900C** development kit enables developers to implement network security applications with Motorola's MPC7410 PowerPC processor and the MPC190 security processor that are part of Motorola's Smart Networks Platform.

The **ZPC.900C** kits consists of the following: the **ZPCI.2900** Quad PMC Carrier Board, the **B900-01** Motorola® PrPMC Monarch Processor PMC module, the **ZPCI.3900** MPC190 Security Processor PMC module, one or two **ZPCI.3100** Gigabit Ethernet PMC modules and a 300 Watt ATX power supply. The PrPMC800 Processor card functions as a generic PowerPC resource board. The MPC190 Security Processor PMC module, the PrPMC800 CPU module and the Gigabit Ethernet PMC module(s) plug into the **ZPCI.2900** Quad PMC Carrier Board. To further facilitate accelerated product development cycles, the **ZPC.900C** kit includes a VxWorks® Board Support Package, drivers and diagnostics for the MPC190. The MPC190 drivers are written in ANSI C for portability to other operating systems.



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ZPC.900C Kit Variants and Ordering Information

ZPC.900C-01 Kit Contents

- **ZPCI.2900** Quad PMC Carrier Board
- **B900-01** Motorola PrPMC800 Monarch Processor PMC Module
- **ZPCI.3900** MPC190 Security Processor PMC Module
- One **ZPCI.3100** Gigabit Ethernet PMC Module
- Software Driver and PrPMC User's Manual CD

ZPC.900C-02 Kit Contents

- **ZPCI.2900** Quad PMC Carrier Board
- **B900-01** Motorola PrPMC800 Monarch Processor PMC Module
- **ZPCI.3900** MPC190 Security Processor PMC Module
- Two **ZPCI.3100** Gigabit Ethernet PMC Modules
- Software Driver and PrPMC User's Manual CD

ZPC.900C-C1 Kit Contents

- **ZPCI.2900** Quad PMC Carrier Board
- **B900-01** Motorola PrPMC800 Monarch Processor PMC Module
- **ZPCI.3900** MPC190 Security Processor PMC Module
- One **ZPCI.3100** Gigabit Ethernet PMC Module
- Software Driver and PrPMC User's Manual CD
- 1U rack mount ATX chassis with Power Supply

ZPC.900C-C2 Kit Contents

- **ZPCI.2900** Quad PMC Carrier Board
- **B900-01** Motorola PrPMC800 Monarch Processor PMC Module
- **ZPCI.3900** MPC190 Security Processor PMC Module
- Two **ZPCI.3100** Gigabit Ethernet PMC Modules
- Software Driver and PrPMC User's Manual CD
- 1U rack mount ATX chassis with Power Supply

ZPC.900C-P1 Kit Contents

- **ZPCI.2900** Quad PMC Carrier Board
- **B900-01** Motorola PrPMC800 Monarch Processor PMC Module
- **ZPCI.3900** MPC190 Security Processor PMC Module
- One **ZPCI.3100** Gigabit Ethernet PMC Module
- Software Driver and PrPMC User's Manual CD
- 300W ATX Power Supply

ZPC.900C-P2 Kit Contents

- **ZPCI.2900** Quad PMC Carrier Board
- **B900-01** Motorola PrPMC800 Monarch Processor PMC Module
- **ZPCI.3900** MPC190 Security Processor PMC Module
- Two **ZPCI.3100** Gigabit Ethernet PMC Modules
- Software Driver and PrPMC User's Manual CD
- 300W ATX Power Supply



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