

ZPC.860C

MPC180 Security Processor Development Board Kit

Kit Contents

- MPC860 Processor Card with installed MPC180 Daughter Board
- 5VDC, 1.5A Power Supply
- Software Driver CD, version 1.0
- MPC860 User's Manual

MPC860 Processor Card Features

- 50MHz MCP860SAR CPU
- 32MByte SDRAM memory
- 2MByte FLASH memory
- RS-232 and 10BaseT Ethernet
- Background Debug Mode (BDM) Port

MPC180 Security Processor 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
- 860 local bus at 50MHz
- 1.8V core, 3.3V I/O, 0.6W power dissipation

MPC180 Software and Driver Support

- VxWorks® driver binaries
- Sample driver source code in ANSI C for easy porting
- Standalone Diagnostics pre-programmed into MPC860 CPU Board FLASH Memory
- VxWorks® BootROM file image
- Downloadable VxWorks® image
- BSP source code
- MPC180-specific modifications to WinNet, IPSec and IKE protocol packages



The **ZPC.860C** 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 ZPC860C security application development environment. The ZPC860C development kit enables developers to implement network security applications with Motorola's MPC860 PowerQUICC communications processor and the MPC180 security processor that are part of Motorola's Smart Networks Platform.

The ZPC860C consists of two components, the MPC860 Processor Card from Micetek® and the MPC180 security processing daughter card from Zephyr. The MPC860 Processor card functions as a generic MPC860 resource board. The MPC180 security processing daughter card connects to the 860 local bus through a board to board connector. The two are tightly coupled and run at 50 MHz. To further facilitate accelerated product development cycles, the ZPC860C kit includes a VxWorks® Board Support Package, drivers and diagnostics for the MPC180. The MPC180 drivers are written in ANSI C for portability to other operating systems.



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ZEPHYR ENGINEERING, INC. 1620 WEST FOUNTAINHEAD PKWY, SUITE 320, TEMPE, AZ 85282-1876 (480)736-8714