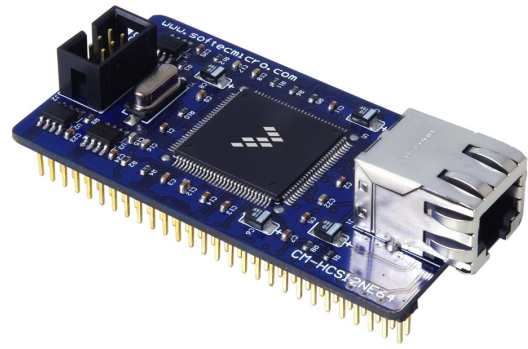


CM-HCS12NE64

Ethernet Core Module

Based on Freescale
MC9S12NE64 Microcontroller



The Ethernet Core Module features 10/100Base-T connectivity, on-chip 64K Flash / 8K RAM, 8 Mbit serial FLASH memory and 4 Kbit serial EEPROM. Two header connectors bring all Ethernet Core Module microcontroller's signals directly to a user-designed motherboard. Up to 70 I/O pins shared with serial interfaces (SCI, SPI, IIC), analog-to-digital converter (ATD) and timer module (input capture, output compare, PWM). The Ethernet Core Module only requires a 3.3 V DC power supply to work. Thanks to the on-board BDM connector, a BDM-based debugging tool (SofTec Microsystems inDART-HCS12) can be used for in-circuit programming and debugging features.

The Ethernet Core Module can be used as the main building block in a user-designed embedded system.

Main Features:

- A 112-pin LQFP MC9S12NE64 microcontroller;
- A 10/100 Base T integrated RJ45 Ethernet connector (with integrated magnetic isolation module);
- An 8 Mbit (1 MByte x 8) serial FLASH memory;
- A 4 Kbit (512 Bytes x 8) serial EEPROM;
- 25 MHz crystal oscillator;
- Reset supervisor circuitry;
- BDM connector for in-circuit debugging/programming;
- Two header connectors with all the microcontroller's signals.

Together with the Ethernet Core Module full source codes of the OpenTCP Open Source project (developed by Viola Systems) fully documented is available to permit easy porting to your custom application. The OpenTCP Open Source project brings a high-quality TCP/IP stack to embedded systems.

The Ethernet Core Module is also included in the SofTec Microsystems AK-S12NE64-A starter kit. This kit represents a complete, ready-to-use embedded Ethernet application.



MC9S12NE64 Features

- 16-bit HCS12 core;
- 64K bytes of FLASH EEPROM;
- 8K bytes of RAM;
- Analog-to-digital converter (ATD);
- Timer module (TIM);
- Serial interfaces (SCI, SPI, IIC);
- Ethernet Media access controller (EMAC);
- Ethernet 10/100 Mbps transceiver (EPHY);
- CRG (clock and reset generator module);
- 50 MHz equivalent to 25 MHz bus speed for single chip;
- Internal 2.5-V regulator.

OpenTCP Features

- ARP
- BOOTP
- DHCP Client
- DNS Client
- HTTP Web Server
- POP3 Client
- SMTP Client
- TCP
- IP
- TFTP Client
- UDP
- ICMP

Order Code

CM-HCS12NE64, \$120

**More information and online
ordering at www.softecmicro.com**

