STM32F4-NETMF

Microsoft .NET Micro Framework environment for STM32F4 microcontrollers

Data brief

Features

- STM3240G-ETH/NMF evaluation board
  - STM32F407VG MCU
  - Ethernet connector and embedded lwIP Stack: HTTP, TCP, UDP, DHCP, ICMP (no separate Ethernet module needed)
  - 8 Gadgeteer sockets for: GPIO (34x), CAN, SPI (2x), I2C, UART (4x), AD (3x), DA, PWM (3x)
  - Integrated micro USB connector (no separate USB client module needed)
  - 2 pushbutton switches (Reset and User)
  - Embedded 8-MByte Flash memory (SPI)
  - Power LED (green) and RGB User LED
  - Serial Wire Debug (SWD) and boot mode selection on the manufacturer-specific connector (Z)
  - Low power modes
  - 100 % open source hardware and software

- STM3240G-USB/NMF evaluation board
  - STM32F407VG MCU
  - 9 Gadgeteer sockets for: GPIO (34x), CAN, SPI (2x), I2C, UART (4x), AD (3x), DA, PWM (3x), USB Device/Host (independent from the second USB port, described below)
  - Integrated micro USB connector (no separate USB client module needed)
  - 2 pushbutton switches (Reset and User)
  - Embedded 8-MByte Flash memory (SPI)
  - Power LED (green) and RGB User LED
  - Serial Wire Debug (SWD) and boot mode selection on the manufacturer-specific connector (Z)
  - Low power modes
  - 100 % open source hardware and software

Figure 1. STM3240G-ETH/NMF evaluation board

Figure 2. STM3240G-USB/NMF evaluation board
1 Description

The STM32F4-NETMF is a complete, cost-effective solution to start an application development with the Microsoft .NET Micro Framework environment for an STM32F4 ARM Cortex-M4 core-based microcontroller.

It allows developing, testing and deploying embedded software in C#, using Microsoft Visual Studio tools, all necessary hardware being included.

You need to install Microsoft Visual Studio 2010 or its free version, Microsoft Visual C# 2010 Express, and the .NET Micro Frame Software Development Kit and associated packages.

The "Getting Started with Mountaineer" tutorial guides you to write your first application. Mountaineer websites are: www.mountaineer.org and www.mountaineer-boards.com.

.NET Micro Framework website is: www.netmf.org.


2 Ordering information

The STM32F4-NETMF can be ordered from The Mountaineer Group or from your nearest ST distributor or sales office.

ST order codes are:
- STM3240G-USB/NMF for the USB variant
- STM3240G-ETH/NMF for the Ethernet variant

For more information and a complete documentation, please refer to The Mountaineer Group web site at www.mountaineer.org, or to the STMicroelectronics microcontroller support site at www.st.com.

3 Revision history

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<td>7-Sep-2012</td>
<td>1</td>
<td>Initial release.</td>
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<tr>
<td>24-Sep-2012</td>
<td>2</td>
<td>Updated Description.</td>
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<td>02-Nov-2012</td>
<td>3</td>
<td>Moved “Useful links” contents to Description, so that it shows up on the product page.</td>
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<td>24-Jan-2013</td>
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Doc ID 023588 Rev 4 3/3