

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

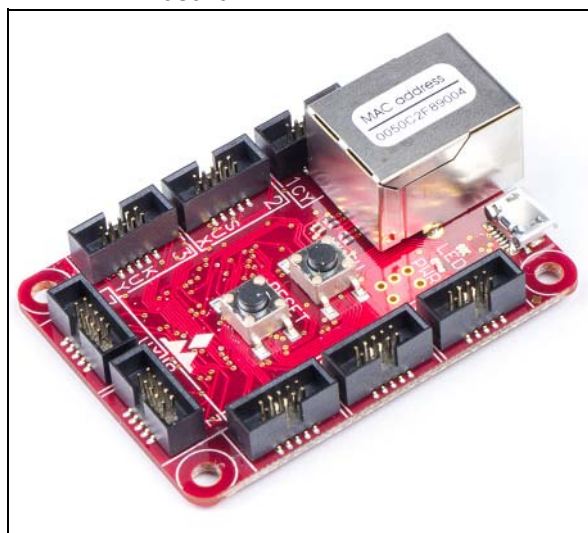
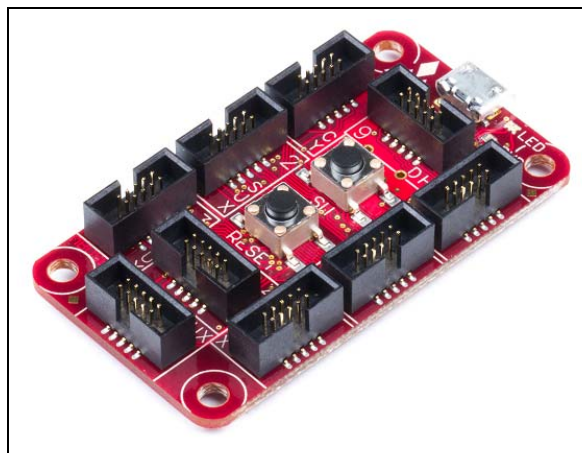


Figure 2. STM3240G-USB/NMF evaluation board



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 Framework Software Development Kit and associated packages.

The "Getting Started with Mountaineer" tutorial guides you to write your first application.

Useful links

- Mountaineer
 - <http://www.mountaineer.org>
 - <http://www.mountaineer-boards.com>
- .NET Micro Framework
 - <http://www.netmf.org>
- Gadgeteer
 - <http://www.netmf.com/gadgeteer>
 - <http://gadgeteer.codeplex.com>

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.

Revision history

Table 1. Document revision history

Date	Revision	Changes
7-Sep-2012	1	Initial release.
24-Sep-2012	2	Updated <i>Description</i> .

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