

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

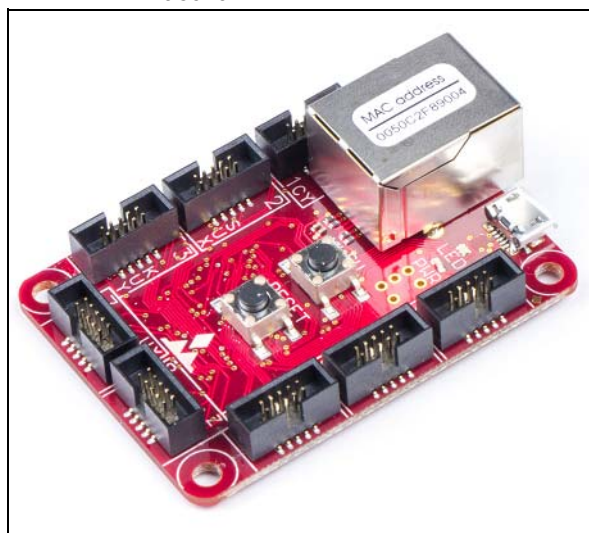
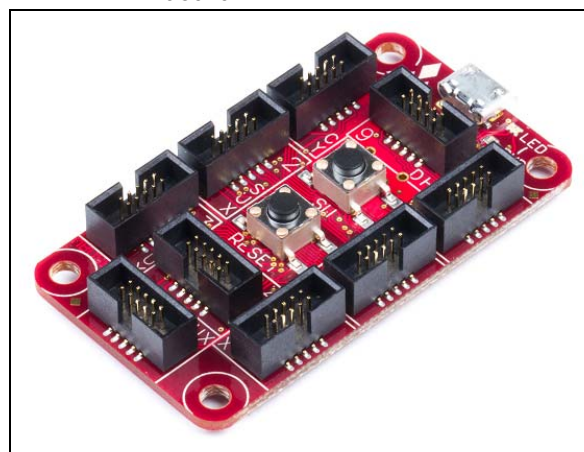


Figure 2. STM3240G-USB/NMF evaluation board



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 Framework 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.

Gadgeteer websites are: www.netmf.com/gadgeteer and www.gadgeteer.codeplex.com.

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

Table 1. Document revision history

Date	Revision	Changes
7-Sep-2012	1	Initial release.
24-Sep-2012	2	Updated Description .
02-Nov-2012	3	Moved "Useful links" contents to Description , so that it shows up on the product page.
24-Jan-2013	4	Modified URL links in Description .

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