32F746GDISCOVERY

## Discovery kit with STM32F746NG MCU

Data brief

Features

- STM32F746NGH6 microcontroller featuring 1 Mbytes of Flash memory and 340 Kbytes of RAM, in BGA216 package
- On-board ST-LINK/V2-1 supporting USB re-enumeration capability
- USB functions: virtual COM port, mass storage, debug port
- 4.3-inch 480x272 color LCD-TFT with capacitive touch screen
- Camera connector
- SAI audio codec
- Audio line in and line out jack
- Stereo speaker outputs
- Two ST MEMS microphones
- SPDIF RCA input connector
- Two pushbuttons (user and reset)
- 128-Mbit Quad-SPI Flash memory
- 128-Mbit SDRAM (64 Mbits accessible)
- Connector for microSD card
- RF-EEPROM daughterboard connector
- USB OTG HS with Micro-AB connectors
- USB OTG FS with Micro-AB connectors
- Ethernet connector compliant with IEEE-802.3-2002
- Five power supply options:
  - ST LINK/V2-1
  - USB FS connector
  - USB HS connector
  - VIN from Arduino connector
  - External 5 V from connector
- Power supply output for external applications: 3.3 V or 5 V
- Arduino Uno V3 connectors
- Comprehensive free software including a variety of examples, part of STM32Cube package
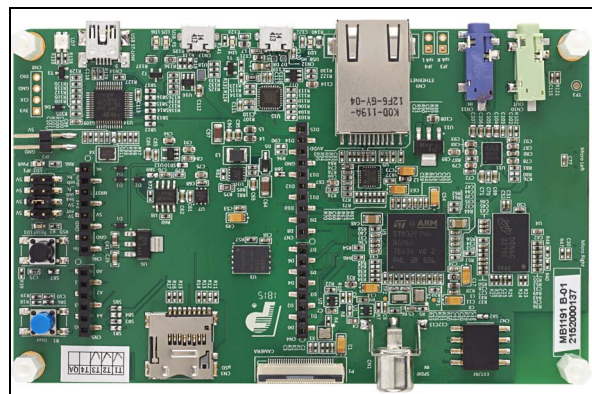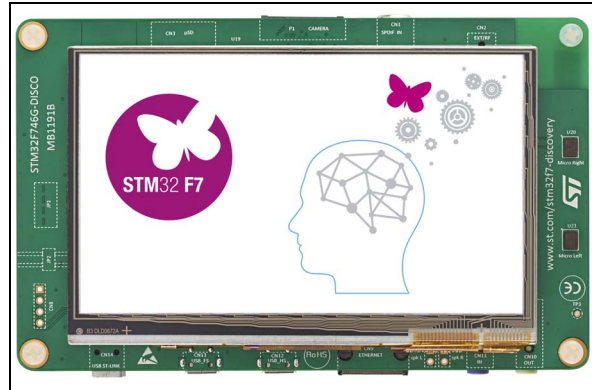
1. Pictures not contractual

Description

The 32F746GDISCOVERY kit helps to discover STM32F7 Series microcontollers based on ARM$^®$ Cortex$^®$-M7 core. It allows users to develop and share applications.

The discovery kit can support applications such as audio and video player audio recorder, home intruder alarm. HMIs can also be designed, taking benefit of audio, video and color touch screen features. The variety of possible application flavors is very wide.

For further information contact your local STMicroelectronics sales office.   *www.st.com*

1 System requirements

- Windows® (XP, 7, 8)
- USB type A to Mini-B cable

2 Development toolchains

- IAR EWARM (IAR Embedded Workbench®)
- Keil® MDK-ARM™
- GCC-based IDEs (free AC6: SW4STM32, Atollic® TrueSTUDIO®,...)

3 Demonstration software

The demonstration software is preloaded in the STM32F746NGH6 Flash memory. The latest versions of the demonstration source code and associated documentation can be downloaded from www.st.com/stm32f7-discovery.

4 Ordering Information

To order the discovery kit with STM32F746NG MCU, use the order code: STM32F746G-DISCO.

5 Technology partners

MICRON:
- 128-Mbit SDRAM (64 Mbits accessible on the kit), part number MT48LC4M32B2
- 128-Mbit Quad-SPI NOR Flash memory device, part number N25Q128A

ROCKTECH:
- Color display, 4.3-inch LCD-TFT (resolution: 480x272), capacitive touch, part number RK043FN48H-CT672B

6   Revision history

Table 1. Document revision history

Date	Revision	Changes
04-Jun-2015	1	Initial release.

IMPORTANT NOTICE – PLEASE READ CAREFULLY