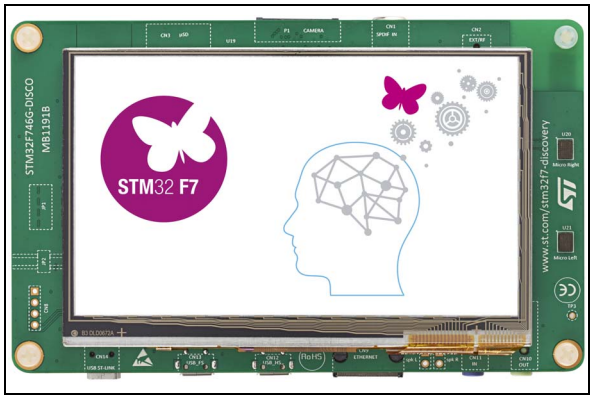
32F746GDISCOVERY

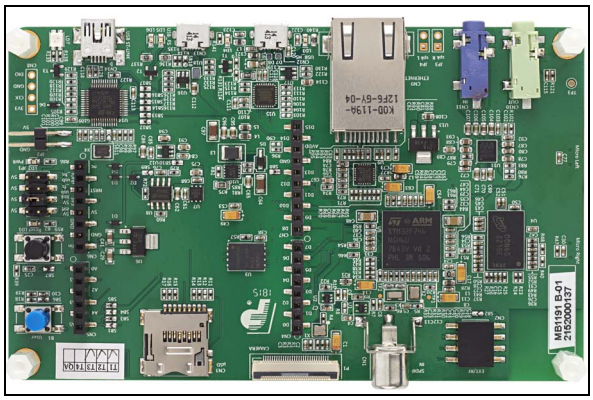
Discovery kit with STM32F746NG MCU

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
- Mbed-enabled (mbed.org)
- 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
- Supported by a wide choice of integrated development environments





1. Pictures not contractual

Description

The STM32F7 discovery kit allows users to develop and share applications with the STM32F7 Series microcontollers based on ARM® Cortex®-M7 core.

The discovery kit enables a wide diversity of applications taking benefit from audio, multi-sensor support, graphics, security, video and high-speed connectivity features.

The Arduino connectivity support provides unlimited expansion capabilities with a large choice of specialized add-on boards.

1 System requirements

- Windows OS (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®,...)
- ARM® mbed™ online

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.
29-Jun-2015	2	Updated *Section : Features* adding 2 bullets: mbed-enabled, supported by a wide choice of integrated development environments. Added mbed-enabled logo. Updated *Section : Description*. Updated *Section 1: System requirements* adding OS at windows. Updated *Section 2: Development toolchains* adding ARM® mbed™ online.