32F769IDISCOVERY

Discovery kit with STM32F769NI MCU

Features

- STM32F769NIH6 microcontroller featuring 2 Mbytes of Flash memory and 512+16+4 Kbytes of RAM, in BGA216 package
- On-board ST-LINK/V2-1 supporting USB reenumeration capability
- USB ST-LINK functions: virtual COM port, mass storage, debug port
- 4" capacitive touch LCD display with MIPI® DSI connector (on STM32F769I-DISCO only)
- SAI audio codec
- Two audio line jacks, one for input and one for output
- Stereo speaker outputs
- Four ST MEMS microphones on DFSDM inputs
- Two SPDIF RCA input and output connectors
- Two push-buttons (user and reset)
- 512-Mbit Quad-SPI Flash memory
- 128-Mbit SDRAM
- Connector for microSD card
- Wi-Fi or Ext-EEP daughterboard connector
- USB OTG HS with Micro-AB connector
- Ethernet connector compliant with IEEE-802.3-2002
- Five power supply options:
  - ST LINK/V2-1
  - USB HS connector
  - 5 V from RJ45 (Power Over Ethernet)
  - 5 V from Arduino™ or external connector
  - USB charger
- Power Over Ethernet based on IEEE 802.3af (Powered Device, 48 V to 5 V, 3 W)
- Power supply output for external applications: 3.3 V or 5 V
- Arduino™ Uno V3 connectors

1. Pictures are not contractual. From top to bottom: STM32F769I-DISCO top view, STM32F769I-DISCO1 top view, STM32F769I-DISCO and STM32F769I-DISCO1 bottom view.

- Comprehensive free software including a variety of examples, part of the STM32Cube package
- Supported by a wide choice of integrated development environments

For further information contact your local STMicroelectronics sales office.

www.st.com
1 Description

The STM32F7 discovery kit allows users to develop and share applications with the STM32F7 Series microcontrollers based on the 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.

2 System requirements

- Windows® OS (XP, 7, 8) or Linux 64-bit or OS X®
- USB Type-A to Micro-B cable

3 Development toolchains

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

4 Demonstration software

The demonstration software is preloaded in the STM32F769NIH6 MCU Flash memory. The latest versions of the demonstration source code and associated documentation can be downloaded from the www.st.com/stm32f7-discovery webpage.

a. On Windows only.
5 Ordering information

To order the discovery kit with the STM32F769NI MCU, refer to Table 1.

<table>
<thead>
<tr>
<th>Order code</th>
<th>Product package</th>
</tr>
</thead>
<tbody>
<tr>
<td>STM32F769I-DISCO</td>
<td>with LCD display</td>
</tr>
<tr>
<td>STM32F769I-DISC1</td>
<td>without LCD display</td>
</tr>
</tbody>
</table>

6 Technology partners

MICRON:
- 128-Mbit SDRAM, part number MT48LC4M32B2

MACRONIX:
- 512-Mbit Quad-SPI NOR Flash memory device, part number MX25L51245G
7 Revision history

Table 2. Document revision history

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-Apr-2016</td>
<td>1</td>
<td>Initial release.</td>
</tr>
<tr>
<td>26-Aug-2016</td>
<td>2</td>
<td>Updated the Section 5: Ordering information to introduce the STM32F769I-DISC1 order code.</td>
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