

### Features

- STM32F769NI microcontroller with 2-Mbyte Flash memory and 512+16+4-Kbyte RAM in BGA216 package
- Six 5 V power supply options:
  - Power jack
  - ST-LINK/V2-1 Micro-B USB connector
  - User USB HS connector
  - User USB FS1 connector
  - User USB FS2 connector
  - Daughterboard
- SAI audio DAC, stereo audio jack that supports headset with microphone
- Stereo digital microphone, audio jack connector used to connect external speakers
- 2-Gbyte (or more) SDIO interface microSD card
- Four I<sup>2</sup>C interfaces
- RS-232 communication
- JTAG/SWD and ETM trace debug support, ST-LINK/V2-1 embedded
- IEEE-802.3-2002 compliant Ethernet connector
- Camera module
- 8Mx32bit SDRAM, 1Mx16bit SRAM and 8Mx16bit NOR Flash
- 512-Mbit Quad-SPI NOR Flash
- 2Gx16bit NAND Flash interface to connect NAND Flash module
- 4" capacitive touch LCD display with MIPI<sup>®</sup> DSI connector
- Joystick with 4-direction control and selector
- Reset, Wake Up/Tamper or key button
- 4-color user LEDs
- Extension and memory connectors for daughterboard or wrapping board



1. Picture not contractual.
  - USB OTG HS and FS with Micro-AB connectors
  - RTC with backup battery
  - CAN2.0A/B compliant connection
  - Potentiometer
  - Motor control connector

## 1 Description

The STM32F769I-EVAL evaluation board is a complete demonstration and development platform for STMicroelectronics ARM<sup>®</sup> Cortex<sup>®</sup>-M7 core-based STM32F769NI microcontrollers. It features the following interfaces: four I<sup>2</sup>Cs, six SPIs with three multiplexed full-duplex I<sup>2</sup>S, SDIO, two SAls, 8- to 14-bit digital camera module, Ethernet MAC, FMC and Quad-SPI. It also features four USART and four UART peripherals, two CAN bus, three 12-bit ADC converters, two 12-bit DAC channels, internal 256+4-Kbyte SRAM and 2-Mbyte Flash memory, USB HS OTG and USB FS OTG peripherals, JTAG debugging support. This evaluation board can be used as a reference design for user application development but it is not considered as a final application.

The full range of hardware features on the board helps the user to evaluate all the peripherals (USB OTG HS, USB OTG FS, Ethernet, motor control, CAN, microSD card, USART, audio DAC and ADC, digital microphone, CAN, SRAM, NOR Flash, SDRAM, Quad-SPI Flash, 4" DSI LCD with capacitive touch panel etc.) and to develop applications. Extension headers make it possible to easily connect a daughterboard for a specific application.

The integrated ST-LINK/V2-1 provides an embedded in-circuit debugger and programmer for the STM32.

## 2 Ordering information

To order the evaluation board with the STM32F769NI MCU, use the order code: STM32F769I-EVAL.

### 3 Revision history

Table 1. Document revision history

Date	Revision	Changes
20-Apr-2016	1	Initial release.

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