STM32 F4 Discovery

STM32 F4 Line Discovery Kit

[STM32F407VGT6 | 32-bit | ARM Cortex M4]
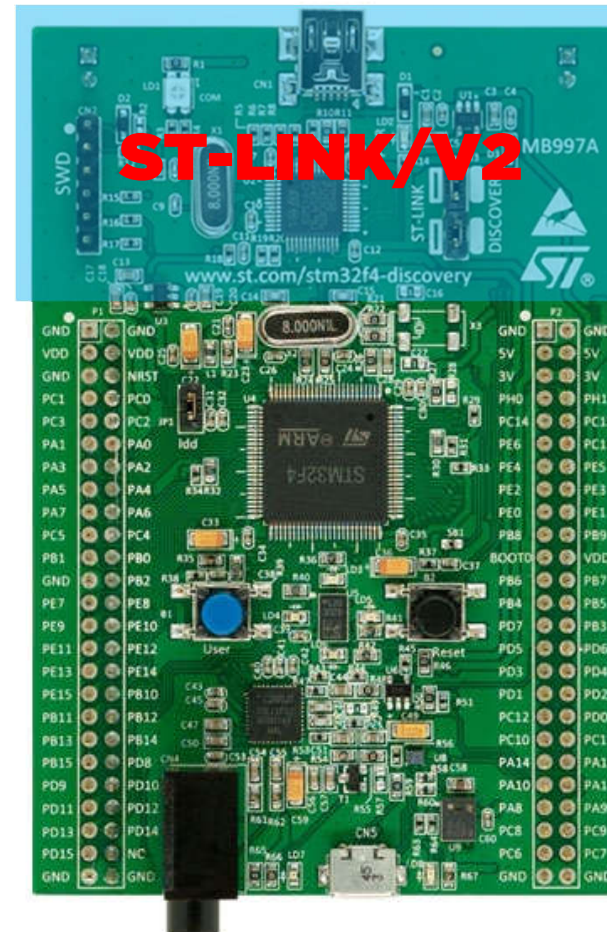
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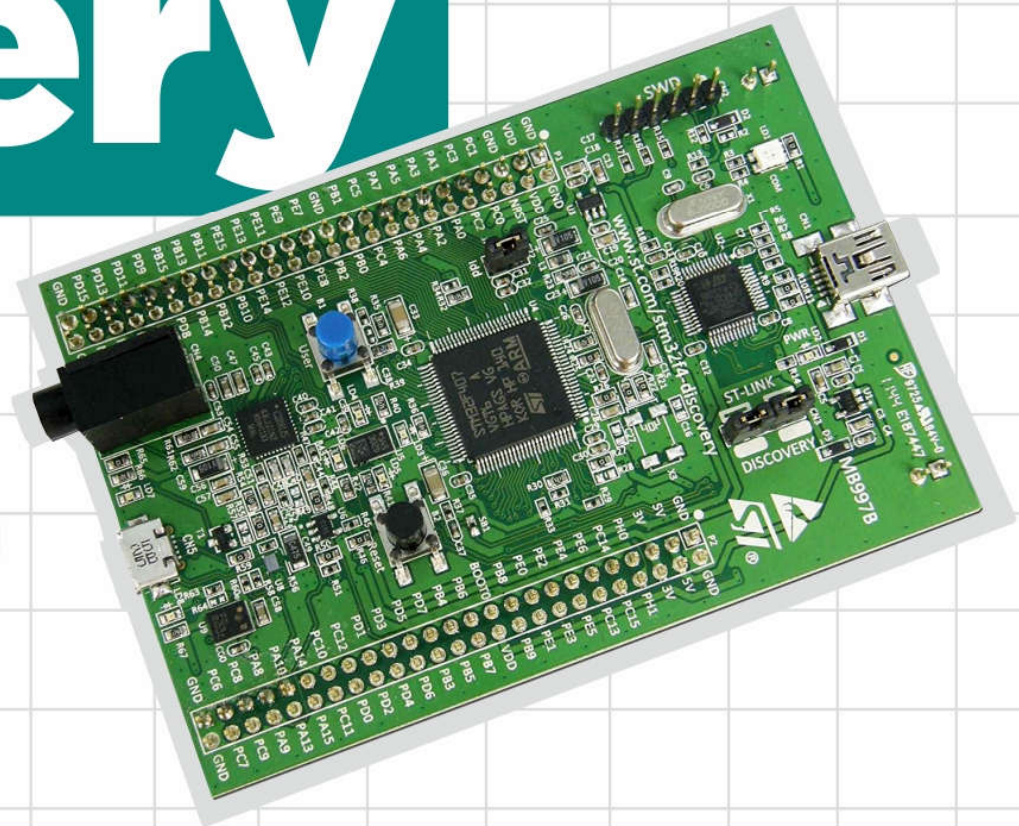
STM32

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STM32 **F1** Value Line Discovery
uC chip: **STM32F100RBT6B**
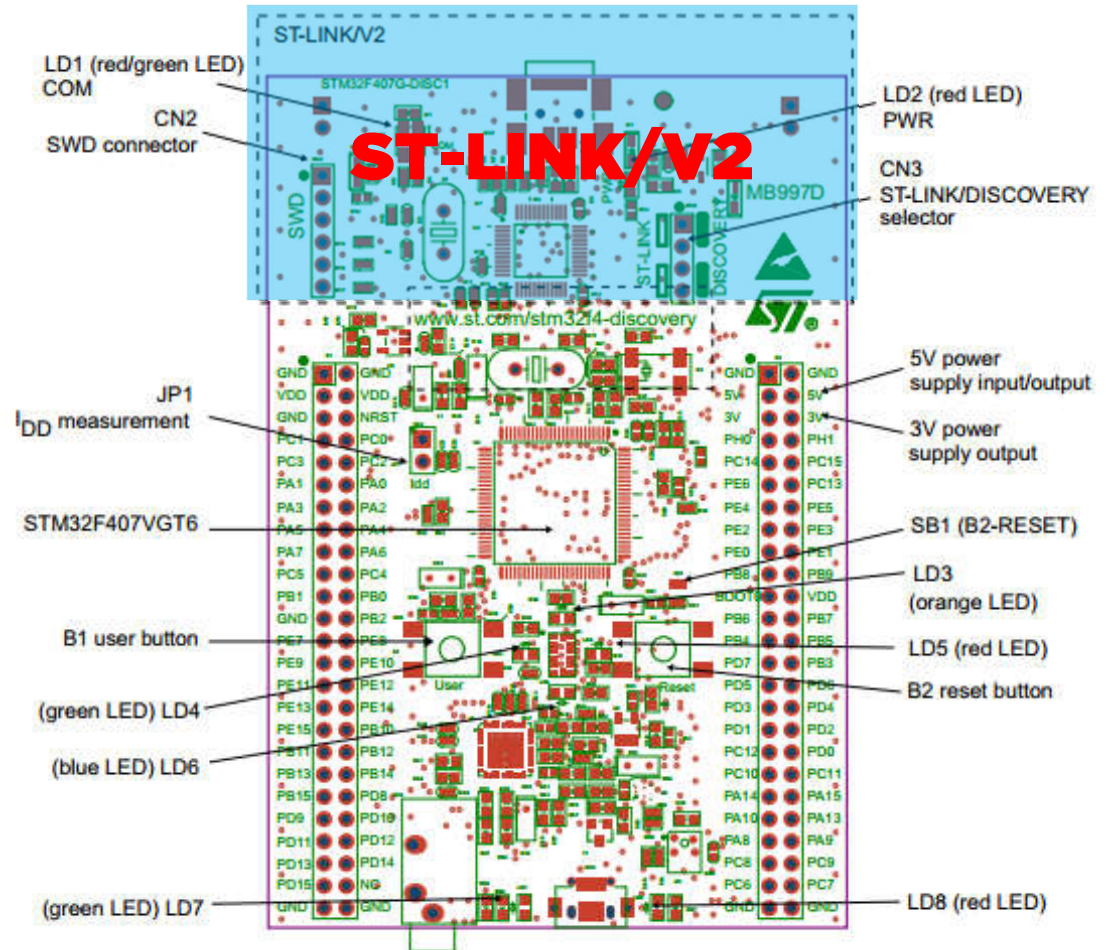Architecture: **32-bit ARM Cortex-M3**

STM32 **F4** Discovery
uC chip: **STM32F407VGT6**
Architecture: **32-bit ARM Cortex-M4**

ST-LINK/V2

ST-LINK/V2

STM32 F4

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STM32 F4 Discovery Kit (Pin Mapping)

Fitur STM32 **F4** Discovery Kit (1)

- **STM32F407VGT6** microcontroller featuring 32-bit ARM Cortex® -M4 with FPU core, 1-Mbyte Flash memory, 192-Kbyte RAM in an LQFP100 package

- **On-board ST-LINK/V2** on STM32F4DISCOVERY or **ST-LINK/V2-A** on STM32F407G-DISC1

- USB ST-LINK with re-enumeration capability and three different interfaces:
  - Virtual COM port (with ST-LINK/V2-A only)
  - Mass storage (with ST-LINK/V2-A only)
  - Debug port

- Board power supply:
  - Through USB bus
  - External power sources: 3 V and 5 V

- **ST MEMS 3-axis accelerometer** (LIS302DL or LIS3DSH)

- **ST MEMS audio sensor omni-directional digital microphone** (MP45DT02)

- **Audio DAC with integrated class D speaker driver** (CS43L22)

Fitur STM32 F4 Discovery Kit (2)

- Eight LEDs:
  - LD1 (red/green) for USB communication
  - LD2 (red) for 3.3 V power on
  - Four user LEDs, LD3 (orange), LD4 (green), LD5 (red) and LD6 (blue)
  - 2 USB OTG LEDs LD7 (green) VBUS and LD8 (red) over-current
- Two push buttons (user and reset)
- **USB OTG** FS with micro-AB connector
- Extension header for all LQFP100 I/Os for quick connection to prototyping board and easy probing.
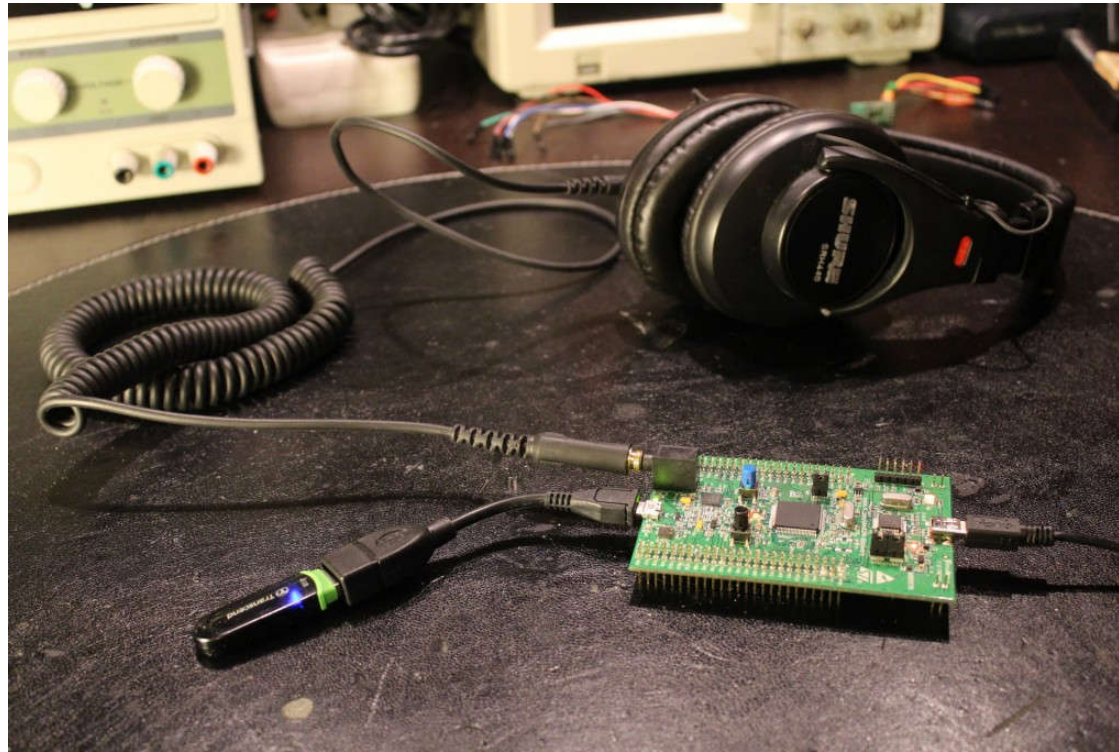
Kebutuhan Sistem - STM32 F4 Discovery Kit

- Komputer Windows® OS (XP, 7, 8 and 10)

- Komputer Linux® 64-bit

- Komputer MacOS™

- Kabel USB type A to Mini-B.

Software Development - STM32 **F4** Discovery Kit

- IAR Embedded Workbench® for ARM®

- Keil® MDK-ARM™

- GCC-based IDE (ARM® Atollic® TrueSTUDIO®)

- ARM® mbed Enabled™ online

- CooCox CoIDE (**Free**)

- **STM32CubeIDE** (**Free**)

Contoh Aplikasi - STM32 F4 Discovery Kit

STM32F4 Discovery USB host and MP3 player
Link: http://vedder.se/2012/12/stm32f4-discovery-usb-host-and-mp3-player/

Support untuk STM32 F4 Line Discovery Kit

1. STM32 F4 Discovery Kit

https://www.st.com/content/st_com/en/products/evaluation-tools/product-evaluation-tools/mcu-mpu-eval-tools/stm32-mcu-mpu-eval-tools/stm32-discovery-kits/stm32f4discovery.html

2. STM32 F4 Discovery Kit Data brief

https://www.st.com/resource/en/data_brief/stm32f4discovery.pdf

3. UM1472 - Discovery kit with STM32F407VG MCU

https://www.st.com/content/ccc/resource/technical/document/user_manual/70/fe/4a/3f/e7/e1/4f/7d/DM00039084.pdf/files/DM00039084.pdf/jcr:content/translations/en.DM00039084.pdf

Support untuk ST-Link/V2 di STM32 **F4** Line Discovery Kit

1. STM32 ST-LINK utility (GUI for download program process)

https://www.st.com/content/st_com/en/products/development-tools/software-development-tools/stm32-software-development-tools/stm32-programmers/stsw-link004.html

 2. ST-Link/V2 Firmware

https://www.st.com/content/st_com/en/products/development-tools/software-development-tools/stm32-software-development-tools/stm32-programmers/stsw-link007.html

3. ST-LINK/V2 USB driver (for Windows7/8/10)

https://www.st.com/content/st_com/en/products/development-tools/software-development-tools/stm32-software-development-tools/stm32-utilities/stsw-link009.html

Terima kasih