Features

- STM32 microcontrollers in 32-pin packages
- extension with Arduino™ nano connectivity
- mbed-enabled (http://mbed.org)
- on-board ST-LINK/V2-1 debugger/programmer
- USB reenumeration capability: three different interfaces supported on USB:
  - Virtual Com port
  - mass storage
  - debug port
- flexible board power supply:
  - USB VBUS
  - external source
- three LEDs:
  - USB communication (LD1), power LED (LD2), user LED (LD3)
- reset push button
- supported by wide choice of Integrated Development Environments (IDEs) including IAR™, Keil®, GCC-based IDEs (AC6 SW4STM32, ...)

Description

The STM32 Nucleo-32 board provides an affordable and flexible way for users to try out new concepts and build prototypes with any STM32 microcontroller line in 32-pin packages, choosing from the various combinations of performance, power consumption and features. The Arduino™ nano connectivity makes it easy to expand the functionality of the STM32 Nucleo open development platform with a choice of specialized shields. The STM32 Nucleo-32 board does not require any separate probe as it integrates the ST-LINK/V2-1 debugger/programmer. The STM32 Nucleo-32 board comes with the STM32 comprehensive software HAL library together with various packaged software examples, as well as direct access to mbed online resources.

Table 1. Device summary

<table>
<thead>
<tr>
<th>Reference</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUCLEO-XXXXXX</td>
<td>NUCLEO-F031K6, NUCLEO-F042K6, NUCLEO-F303K6</td>
</tr>
</tbody>
</table>
1 Ordering information

*Table 2* lists the order codes and the respective targeted MCU.

<table>
<thead>
<tr>
<th>Order code</th>
<th>Targeted MCU</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUCLEO-F031K6</td>
<td>STM32F031K6T6</td>
</tr>
<tr>
<td>NUCLEO-F042K6</td>
<td>STM32F042K6T6</td>
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<tr>
<td>NUCLEO-F303K8</td>
<td>STM32F303K8T6</td>
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</tbody>
</table>

The meaning of NUCLEO-TXXXKY codification is as follows:
- TXXX describes the STM32 MCU product line (T for F or L)
- K describes the pin count (K for 32 pins)
- Y describes the code size (6 for 32K, 8 for 64K)

The order code is printed on a sticker, placed at the top or bottom side of the board.
2 Revision history

Table 3. Document revision history

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>08-Sep-2015</td>
<td>1</td>
<td>Initial release.</td>
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</table>
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