STM32L0x0 Value line

Marketing presentation

November 2018
STM32 portfolio

12 product series / More than 50 product lines

Ultra-low-power

High-performance

Mainstream

Wireless

Cortex-M0
Cortex-M0+
Cortex-M3
Cortex-M4
Cortex-M7

Note: Cortex-M0+ Radio Co-processor
STM32L0x0 Value Line

Our new cost-efficient solution with 20- to 64-pin packages

STM32 Cortex-M0+ 32Mhz
- Up to 128Kbytes of FLASH memory
- Up to 512B Internal EEPROM

No compromise on low power
- Standby: down to 230 μA
- Stop mode with RAM retention: down to 340 μA
- Run mode: down to 76* μA/MHz

Available in Mass production
- From 20 to 64 pins
- From 16 to 128 Kbytes
- Pin-to-pin compatible with STM32 portfolio

* Down to 49μA/Mhz with external SMPS
## STM32L0 Series Portfolio

### Up to four lines for more flexibility

<table>
<thead>
<tr>
<th>Product</th>
<th>Flash (KB)</th>
<th>RAM (KB)</th>
<th>EEPROM (Bytes)</th>
<th>Power supply</th>
<th>PVD</th>
<th>TEMP sensor</th>
<th>2x ULP COMP</th>
<th>2x 12-bit DAC</th>
<th>Touch sense</th>
<th>TRNG</th>
<th>USB 2.0 FS</th>
<th>Segment LCD Driver</th>
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<tbody>
<tr>
<td>STM32L0x0</td>
<td>Up to 128</td>
<td>Up to 20</td>
<td>Up to 512</td>
<td>Down to 1.8V</td>
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<td>STM32L0x1</td>
<td>Up to 192</td>
<td>Up to 20</td>
<td>Up to 6K</td>
<td>Down to 1.65V</td>
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<td>STM32L0x2</td>
<td>Up to 192</td>
<td>Up to 20</td>
<td>Up to 6K</td>
<td>Down to 1.65V</td>
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<td>STM32L0x3</td>
<td>Up to 192</td>
<td>Up to 20</td>
<td>Up to 6K</td>
<td>Down to 1.65V</td>
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<td>Up to 4x52 or 8x48</td>
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**Note 1:** Low-power peripherals available in ultra-low-power modes.
**Note 2:** PVD = Programmable voltage detector.

New Value line
STM32L0x0 Value line portfolio

Simple, affordable ultra-low-power STM32 MCUs

Flash memory size / RAM size (bytes)

128 K / 20 K
64 K / 8 K
32 K / 8 K
16 K / 2 K

STM32L010F4
STM32L010K4
STM32L010C6
STM32L010K8
STM32L010RB
STM32L010R8

Pin count

20-pin TSSOP
32-pin LQFP
48-pin LQFP
64-pin LQFP
STM32L0x0 Value line
Ultra-low-power basics

- Core
  - Arm Cortex M0+ @ 32 MHz
- Ultra-low-power peripherals
  - LPUART (down to STOP mode)
  - LPTIMER (down to STOP mode)
  - RTC (down to STANDBY mode)
- Supply
  - 1.8V to 3.6V
- 6 Part Numbers
- Package
  - 20-pin TSSOP
  - 32-, 48-, 64-pin LQFP

STM32L010RBT6
STM32L0x0 Value line ecosystem
Hardware development tools

Development tools adapted to your needs

Nucleo board
NUCLEO-L010RB

Nucleo expansion board
X-NUCLEO-LPM01A

arm MBED Enabled

EMBC
STM32L0x0 Value line ecosystem
Software development tools

A complete flow, from configuration up to monitoring

STM32CubeMX
Configure and generate code

Partners IDEs
Compile and debug

STM32cubeMonitor-Power
STMStudio

Free IDEs
Releasing your creativity with STM32

www.st.com/stm32l0vl