Dual push-button on/off controllers

Allows safe and easy power control

The STM6600 and STM6601 devices are smart push-button on/off controllers that enable designers to improve the user experience of battery-powered devices such as e-books, mobile internet devices, digital cameras, media players, handheld medical equipment and numerous portable devices. They enable and disable power for the application depending on push-button states, signals from the processor, and battery voltage.
If the battery is excessively discharged or a fault is detected in the power supply, the IC blocks power-up. The ICs also implement smart-reset capabilities to enable users to safely recover devices that have frozen or crashed.
They feature a very low current consumption of 6 µA in normal operation and only 1 µA during standby.

KEY FEATURES

- Operating voltage: 1.6 to 5.5 V
- Low standby current: 1 µA
- Adjustable Smart Reset™ assertion delay time driven by external capacitor
- Fixed time power-up duration (STM6601) or push-button power-up duration (STM6600)
- Debounced push-button
- ESD inputs protections:
  - up to ±15 kV (air discharge)
  - ±8 kV (contact discharge)
- Active-high or active-low enable output
- Battery monitoring feature
- 1.5 V voltage reference with 1% accuracy
- Industrial operating temperature: -40 to +85 °C
- Available in TDFN12 (2 x 3 mm) package

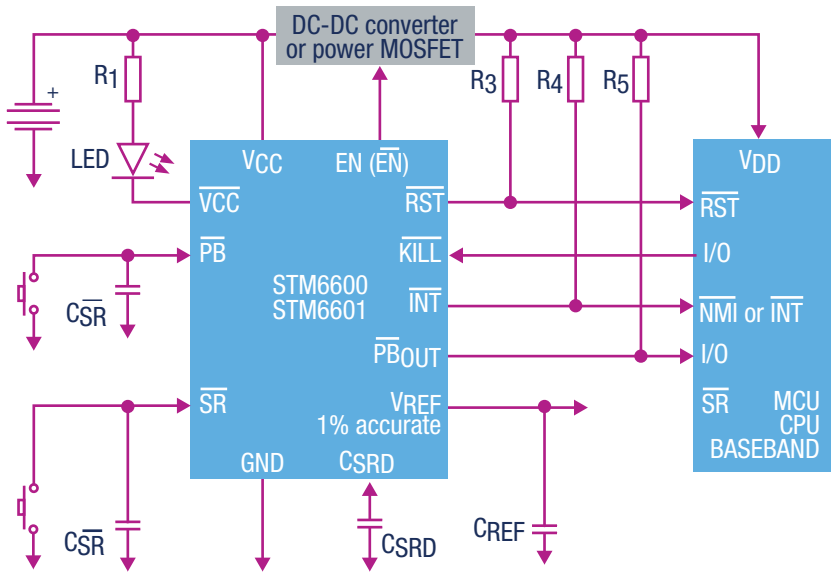
KEY BENEFITS

- Secure start-up, or power-down driven by push button or by application
- Secure reset or power-down in case of non-responding application
- Customizable according to specific application requirements

TARGETED APPLICATIONS

- Smartphones
- Tablets
- Smart watches
- Wearable / IoT devices
- Multimedia players
- Activity trackers
- MP3 players
- Portable navigation devices

APPLICATION SETUP DIAGRAM



SMART ON/OFF CONTROLLER PRODUCT RANGE

Part number	I/O response options	Threshold voltage options (V)		Blanking time options (s)	Package
		Power-on	Power-off		
STM6600	EN output is active high, long push asserts RST EN output active low, long push asserts RST EN output active high, long push deasserts EN EN output active low, long push deasserts EN	2.50, 3.30, 3.40, 3.50	2.0, 3.10, 3.20, 3.30	5.6, 11.2	TDFN12
STM6601	EN output is active high, long push asserts RST EN output active low, long push asserts RST EN output active high, long push deasserts EN EN output active low, long push deasserts EN	3.10, 3.30, 3.40, 3.50	2.90, 3.10, 3.20, 3.30	1.4, 5.6	TDFN12

STM6600: PB must be held low until PSHOLD confirmation

STM6601: PB can be released before PSHOLD confirmation