

Smart Reset™ ICs

Dual push-button



Enhance end-products robustness

ST's family of Smart Reset™ ICs provides dual-assert manual-reset (push-button) inputs called smart reset inputs that make it possible to reliably resolve a system hang or freeze condition. Dual-assert manual-reset inputs require the user to assert two inputs simultaneously to initiate the system reset function (except the STM6504 which is edge triggered). This dual-key approach is more advanced than conventional single push-button resetting because it prevents the system from accidentally resetting. ST's Smart Reset™ ICs allow the designer to use existing buttons to reset a device and eliminates the need for an unsightly reset access hole or a dedicated reset button.

KEY FEATURES

- Wide operating voltage: 1.0 to 5.5 V
- Low supply current: 1 to 2 μ A (typ.)
- Voltage thresholds monitoring: 1.575 to 4.625 V
- Open-drain or push-pull output
- Active-high or active-low reset
- Adjustable input reset delay: 0.5 s to 12.5 s (typ.)
- Adjustable reset pulse width: 1.28 to 2240 ms
- Power-on reset
- Test mode
- Operating temperature: -40 to +85 °C
- DFN6 or DFN8 package

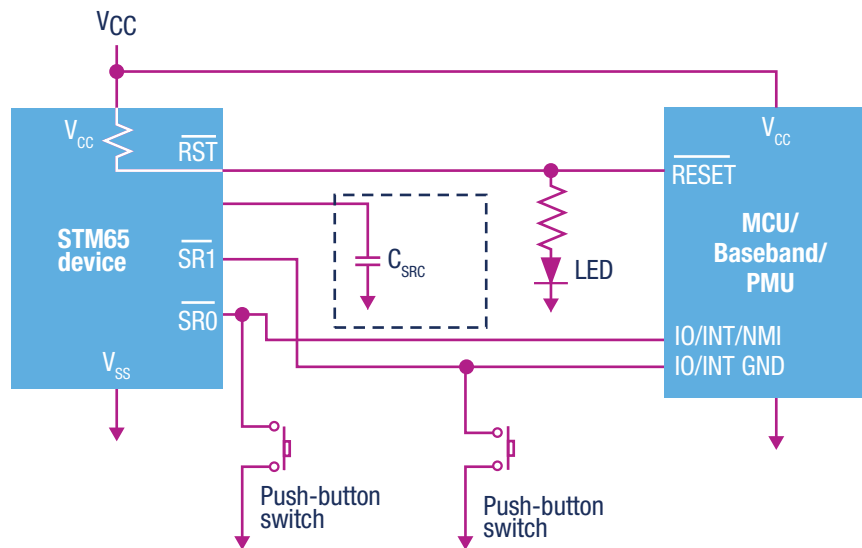
KEY BENEFITS

- Ideal for touchscreens or low-pin-count devices
- Smart recovery from system freeze or product misuse
- Increases product robustness / perception of quality
- Enhanced end user satisfaction
- Also suitable for hidden functionality (not only reset): e.g. data sync, device pairing, shortcuts, etc.

KEY APPLICATIONS

- Smartphones, tablets, smart watches
- Wearable / IoT devices
- Multimedia and MP3 players
- Activity trackers
- Portable navigation devices
- Any application that requires 1 or 2 delayed push buttons

TYPICAL APPLICATION SET-UP



SMART RESET PRODUCT RANGE

Part number	Number of monitored voltages	Input reset configuration	Input reset delay (s)	Reset pulse configuration	Reset pulse width (s)	Package (mm)	Others
STM6503	1	Three-state	[2 - 10]	Factory-programmed	[0.14 - 0.48]	DFN8 2x1x0.55	-
STM6505	2	Capacitor-adjustable	[2 - 15]	Factory-programmed	[0.21 - 0.36]	DFN8 2x1x0.55	-
STM6510	1	Capacitor-adjustable	[1 - 15]	Capacitor-adjustable	[0.01 - 2.24]	DFN8 2x1x0.55	-
STM6513	1	Three-state	[2 - 10]	Capacitor-adjustable	[0.01 - 2.24]	DFN8 2x1x0.55	1 push-pull output
STM6519	0	Factory-trimming	[0.5 - 10]	Factory-programmed	[0.001 - 0.36]	QFN6 1x1.45x0.55	Customer test mode
STM6520	0	Dual-state	[7.5 - 12.5]	-	-	DFN8 2x1x0.55	1 push-pull output
STM6522	0	Capacitor-adjustable	[2 - 15]	Factory-programmed	0.21	DFN8 2x1x0.55	-
STM6524	0	Factory-trimming	[0.5 - 10]	Factory-programmed	[0.001 - 0.36]	DFN6 1.3X1.6 X0.55	Customer test mode

