



MIC2782 — Dual-Input Push Button Reset IC with Immediate and Delayed Outputs

Protects Against Accidental Resets While Satisfying Size and Power Demands for Smartphones and Tablets

- 1.5V to 5.5V operating supply voltage range
- 2.2 μ A supply current with /MR1, /MR2 not asserted
- 6-bump, 0.4mm pitch, 0.8mm x 1.2mm Wafer Level Chip Scale Package (WLCSP)
- Factory programmed setup periods of 6s, 8s, 10s, or 12s
- Factory programmed reset timeout periods of 0.5s, 1s, or 2s
- Integrated 65k Ω /MR1 and /MR2 pull-up resistors
- Supports single push button reset with /MR1 tied to /MR2
- RESET asserts after /MR1 and /MR2 are asserted low for a setup period
- ANDOUT asserts after /MR1 and /MR2 are asserted low for a debounce time (1.5ms)
- Open-Drain RESET and ANDOUT Outputs

Ideal for use in:

- Smartphones
- Tablets
- eBooks
- Portable Games
- Portable Navigation Devices
- Medical Equipment
- Routers

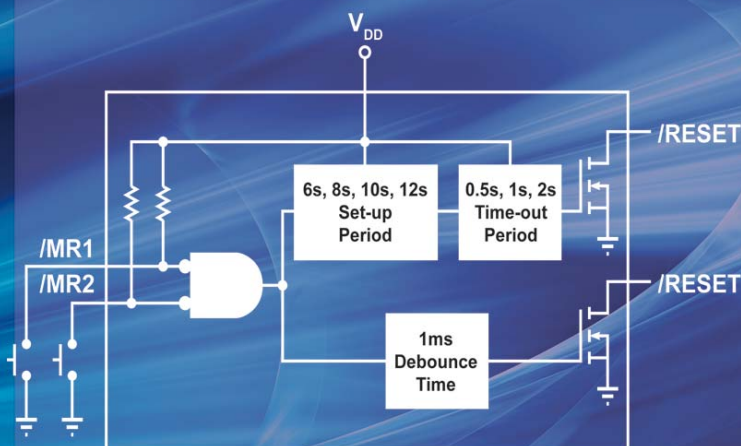
For more information, contact your local Micrel sales representative, or visit Micrel at:
www.micrel.com/index.php/en/products/power-management-ics/

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MIC2782

Ultra-Small, Low-Current Push-Button Reset IC



Applications



- Dual-Inputs and Long Setup Periods Protect Against Accidental Reset
- 1ms Delay Output Reduces Production Test Time
- Ultra-Small 1 Millimeter Square CSP
- Low 2.2 μ A Supply Current

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Analog

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 Innovation Through Technology®

MIC2782 — Dual-Input Push Button Reset IC with Immediate and Delayed Outputs

The MIC2782 is a two input, two output push button reset IC. It will generate a reset pulse for a factory programmed reset timeout period after both manual reset inputs have been held to a logic-low for the factory programmed setup period. The MIC2782 also has an ANDOUT logic output which will activate if both inputs are held low for longer than a debounce time (1.5ms), and deactivate if one or both inputs are released for longer than a debounce time (1.5ms). The RESET and ANDOUT outputs are active-low, open-drain NMOS outputs.

The MIC2782 operates over the 1.5V to 5.5V supply voltage range, consuming 2.2µA of supply current at 3.3V. The device features 65kΩ internal pull-up resistors on both of the inputs (/MR1 and /MR2). The device offers factory programmed setup periods of 6s, 8s, 10s, or 12s and reset timeout periods of 0.5s, 1s, or 2s. It is available in a space saving, 6-bump, 0.4mm pitch, 0.8mm x 1.2mm Wafer Level Chip Scale Package.

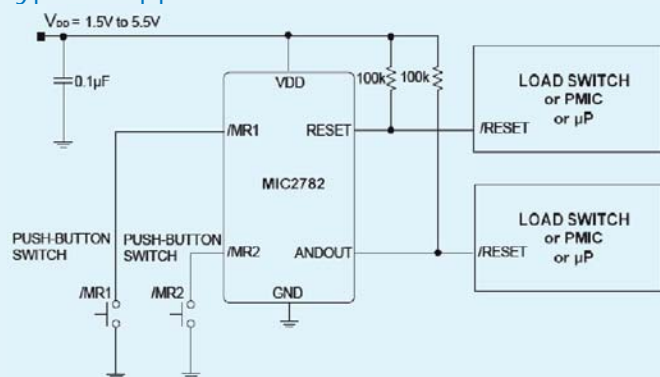
Key Features

- Ultra-small 1 sq. mm CSP package
- Dual push-button reset inputs
- Extended setup periods of 6 to 12 seconds
- Consumes just 2.2µA of supply current at 3.3V

Benefits

- Compact solution without compromising performance
- Helps safely generate hard system resets
- Protects against accidental system resets
- Saves battery life in personal, portable products

Typical Application



Ordering Information

Part	Setup Period	Reset Timeout Period	Package
MIC2782CLYCS	6 sec	0.5 sec	6-Bump 0.4mm pitch, 0.8mm x 1.2mm WLCSP
MIC2782CMYCS	6 sec	1 sec	6-Bump 0.4mm pitch, 0.8mm x 1.2mm WLCSP
MIC2782CRYCS	6 sec	2 sec	6-Bump 0.4mm pitch, 0.8mm x 1.2mm WLCSP
MIC2782DLYCS	8 sec	0.5 sec	6-Bump 0.4mm pitch, 0.8mm x 1.2mm WLCSP
MIC2782DMYCS	8 sec	1 sec	6-Bump 0.4mm pitch, 0.8mm x 1.2mm WLCSP
MIC2782DRYCS	8 sec	2 sec	6-Bump 0.4mm pitch, 0.8mm x 1.2mm WLCSP
MIC2782ELYCS	10 sec	0.5 sec	6-Bump 0.4mm pitch, 0.8mm x 1.2mm WLCSP
MIC2782EMYCS	10 sec	1 sec	6-Bump 0.4mm pitch, 0.8mm x 1.2mm WLCSP
MIC2782ERYCS	10 sec	2 sec	6-Bump 0.4mm pitch, 0.8mm x 1.2mm WLCSP
MIC2782FLYCS	12 sec	0.5 sec	6-Bump 0.4mm pitch, 0.8mm x 1.2mm WLCSP
MIC2782FMYCS	12 sec	1 sec	6-Bump 0.4mm pitch, 0.8mm x 1.2mm WLCSP
MIC2782FRYCS	12 sec	2 sec	6-Bump 0.4mm pitch, 0.8mm x 1.2mm WLCSP

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