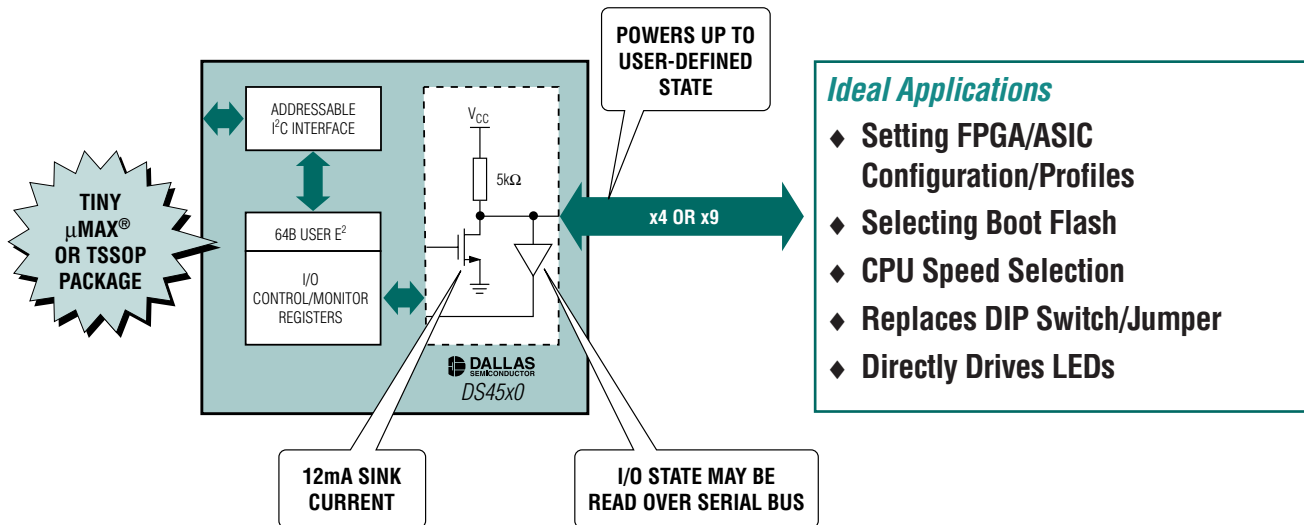


# WORLD'S SMALLEST NONVOLATILE I/O EXPANDERS

## DS45x0 Offers Up to Nine Channels of Nonvolatile Programmable I/O for System Configuration

I/O states are programmed or monitored over an addressable I<sup>2</sup>C™-compatible interface or IEEE 1194.1 JTAG port (DS4550). The user can configure the I/O as open-drain or make use of an internal 5kΩ pullup resistor. Additional system parameters can be stored in 64-byte user EEPROM.



- ◆ Four or Nine Nonvolatile I/O Ports with Selectable, Internal, 5k $\Omega$  Pullup Resistor
- ◆ 64-Byte User EEPROM
- ◆ I<sup>2</sup>C-Addressable Interface
- ◆ IEEE 1194.1 JTAG Port (DS4550)
- ◆ 2.7V to 5.5V, -40°C to +85°C Operating Ranges

Part	I/O Ports	Max Ports	Serial Bus	CPU Reset	V <sub>DD</sub> Range (V)	I/O Sink (mA)	Pin-Package	Price <sup>†</sup> (\$)
DS4510	4	8	I <sup>2</sup> C addressable	Yes	2.7 to 5.5	4	10- $\mu$ MAX	0.99
DS4520	9	72	I <sup>2</sup> C addressable	No	2.7 to 5.5	12	16-TSSOP	1.25
DS4550*	9	72	I <sup>2</sup> C addressable/JTAG	No	2.7 to 5.5	12	20-TSSOP	1.75

Purchase of I<sup>2</sup>C components from Maxim Integrated Products, Inc., or one of its sublicensed Associated Companies, conveys a license under the Philips I<sup>2</sup>C Patent Rights to use these components in an I<sup>2</sup>C system, provided that the system conforms to the I<sup>2</sup>C Standard Specification as defined by Philips.

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\*Future product—contact factory for availability.

<sup>†</sup>1000-up recommended resale. Prices provided are for design guidance and are FOB USA. International prices will differ due to local duties, taxes, and exchange rates.

Not all packages are offered in 1k increments, and some may require minimum order quantities.



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