Issue Number | 001
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New Product Announcement

PI4IOE5V6416

General Purpose 16-Bit I²C-Bus IO Expander

The PI4IOE5V6416 is a 16-bit general purpose IO expander that provides remote IO expansion for most microcontroller families via the I²C-bus interface.

It provides a simple solution when additional IOs are needed while keeping interconnections to a minimum. For example, in battery-powered mobile applications for interfacing to sensors, push buttons, and keypads.

It operates from 1.65V to 5.5V on the GPIO-port side and 1.65V to 5.5V on the SDA/SCL side (I²C-bus interface). This allows the PI4IOE5V6416 to interface with next-generation microprocessors and microcontrollers on the SDA/SCL side, where supply levels are reducing to conserve power.

The PI4IOE5V6416 is available in the industry standard TSSOP-24 and TQFN-24 packages.

The Diodes Advantage

- **Low Operation power supply voltage from 1.65V to 5.5V**
  Supports new generation of low power supply microprocessors and microcontrollers.
- **Bidirectional voltage level translation and GPIO expansion**
  Simplified interconnection between processor running at one voltage level to IO devices operating at a different (usually higher) voltage level.
- **Wise I/O Programming features:**
  - Programmable output drive strength
  - Latchable inputs
    - Programmable pull-up/pull-down resistors
  - Maskable interrupt
    - Programmable open-drain or push-pull outputs
- **Fully Compatible with I²C Standard Mode and I²C Fast Mode (Up to 400kbit/s Operation)**

Applications

- Server
- Networking
- Telecom
- Mobile Applications

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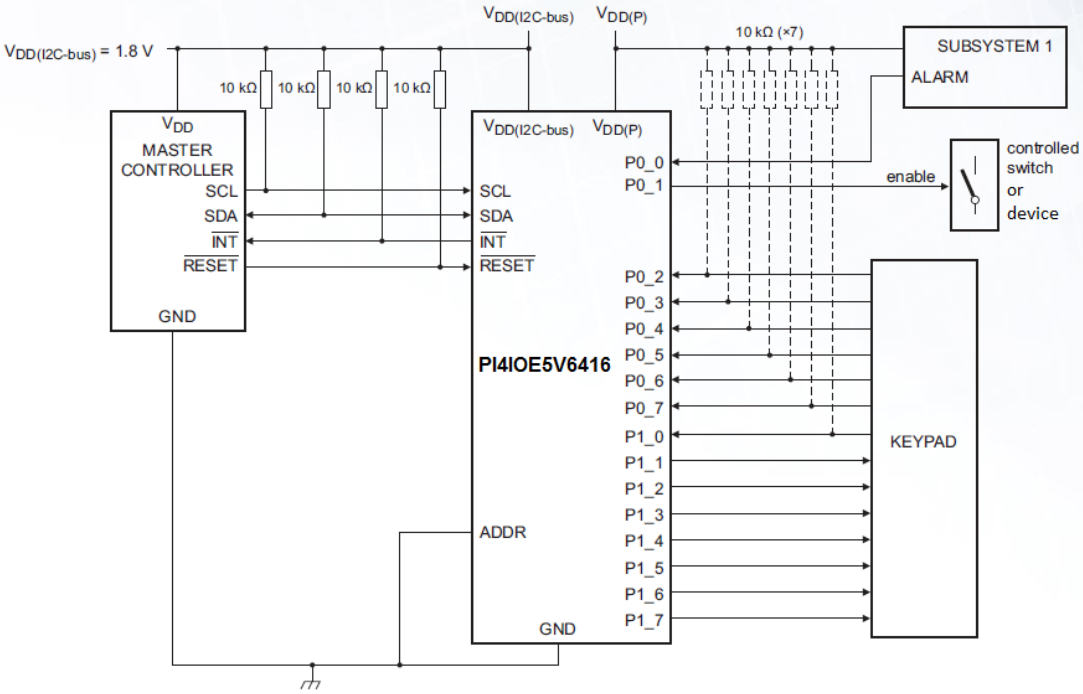
Typical Application Circuit



Ordering Information

Part Numbers	Package Code	Package	Reel Size	# per Reel
PI4IOE5V6416LEX	L	TSSOP-24	13”	3,000
PI4IOE5V6416ZDEX	ZD	TQFN-24	13”	3,500

For more information: https://www.diodes.com/part/PI4IOE5V6416

Cross Reference

Competitors	Part#	Package	Diodes Ordering Part#
NXP	PCAL6416A	PW	PI4IOE5V6416LEX
		HF	PI4IOE5V6416ZDEX
NXP	PCA6416A	PW	PI4IOE5V6416LEX
		HF	PI4IOE5V6416ZDEX
TI	TCA6416	PW	PI4IOE5V6416LEX
		RTW	PI4IOE5V6416ZDEX