

Contents

- 1 Overview
- 2 Applications
- 3 Specifications
- 4 External Links

Overview

This xCHIP is an interface module, based on the PCA9548A by NXP Semiconductors, which enables users to add more than one xCHIP with the same physical I²C address to a circuit. The PCA9548A operates as an I²C channel selector, this functionality is what enables communication with multiple I²C devices that have the same address. The channel selector ability is achieved through an octal bidirectional translating switch controlled by the I²C-bus.

Product Highlights

- Octal bidirectional translating switch
- I²C-bus interface logic; compatible with SMBus standards
- No glitch on power-up
- Supports hot insertion

Applications

- Communication systems
- Computer memory
- Telephone networks

Specifications

- Active LOW reset input
- Three hardware address pins allowing up to eight devices on the I²C-bus
- Channel selection via I²C-bus, in any combination
- Power-up with all switch channels deselected
- Low R^{ON} switches
- Low standby current
- 0 Hz to 400 kHz clock frequency

External Links

Datasheet

- PCA9548A From NXP Semiconductors (<https://www.nxp.com/docs/en/data-sheet/PCA9548A.pdf>)

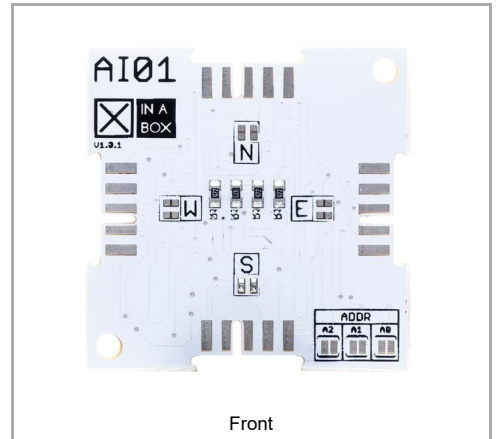
Shop

- Buy AI01 (<https://xinabox.cc/products/AI01>)

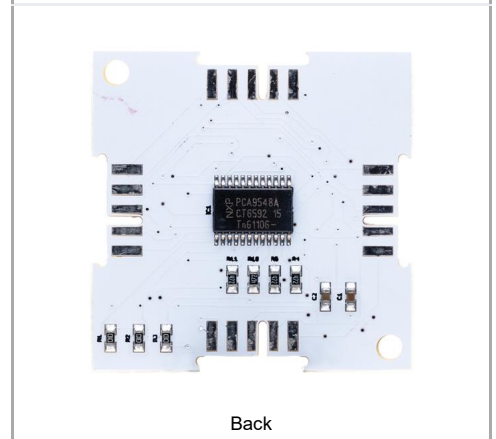
GitHub Libraries

- Arduino (https://github.com/xinabox/Arduino_AI01)

AI01 - I2C MultiPlexer (PCA9548A/PCA9548)



Front



Back

✘CHIP

Main Category	Interface
Sub Category	I2C MultiPlexer
Introduced	1 January 2017
Current version	1.0.1
Current version date	1 January 2017
Dimensions	
Size	2x2U (32x32mm)
Weight	3.1 g
Height	3.1/0/0 mm
Main Chip Set	
Main Chip	PCA9548A
Max. Frequency	400 kHz
I²C Configuration	
Default Address	0x70
Alternative Addresses	0x71 0x72 0x73 0x74 0x75 0x76 0x77
Change Setting	Solder