XinaBox Datasheet AI04 - I2C Extender

Contents

Overview

This xCHIP is an interface module, based on the P82B715DR by Texas Instruments. The P82B715DR is a bipolar device intended for I^2C bus systems applications and supports bidirectional data transfer via the I^2C bus. The P82B715DR buffers both the serial data (SDA) and serial clock (SCL) signals on the I^2C bus and allows expansion of the I^2C bus, while retaining all the operating modes and features of the I^2C system.

3.3 volt from are also transmitted from one AI04 to another AI04, eliminating the need for separate power on the receiving end.

No specific coding is required to use a pair of AI04 as the I^2C signal is transmitted transparently between the 2 sides.

A pair of AI04 are interconnected using patch cable (straight) version of the well-known RJ11 telephone style cable and plug points.

Product Highlights

- Supports bidirectional data transfer of I^2C bus signals and 3.3 volt power.

Applications

- Long I^2C communications
- Industrial communications
- Specific location or facing of sensors or other xChips

Specifications

- Dual bidirectional unity-voltage-gain buffer with no external directional control required
- Drives 10x lower-impedance bus wiring for improvised noise immunity
- Multi-drop distance of I^2C signals using low-cost twisted-pair cables
- I^2C bus operation over 50 meters of twisted-pair wire

External Links

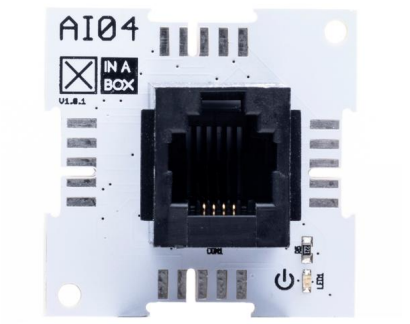
Datasheet

- P82B715DR From Texas Instruments (http://www.ti.com/lit/ds/symlink/p82b715.pdf)

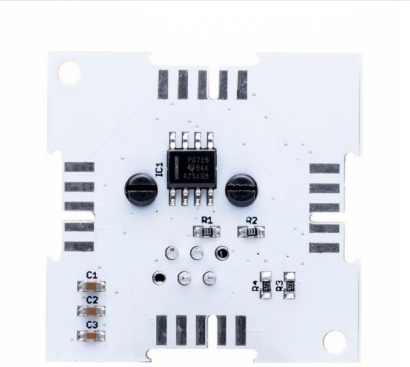
Shop

- Buy AI04 (https://xinabox.cc/products/AI04)

AI04 - I2C Extender
(P82B715DR/P82B715)



Front



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☒CHIP	
Main Category	Interface
Sub Category	I2C Extender
Introduced	1 January 2017
Current version	1.0.1
Current version date	1 January 2017
Dimensions	
Size	2x2U (32x32mm)
Weight	5.6 g
Height	19.5/0/0 mm
Main Chip Set	
Main Chip	P82B715DR