



Data Sheet

π 110M(E)1x/ π 120M(E)1x/ π 122M(E)1x

FEATURES

Ultra low power consumption:

π 110x1x: 0.55mA/Channel

π 12xx1x: 0.35mA/Channel

High data rate:

π 110M1x: 10Mbps

π 110E1x: 200Mbps

π 12xM1x: 10Mbps

π 12xE1x: 200Mbps

High common-mode transient immunity: 50 kV/ μ s typical

High robustness to radiated and conducted noise

Low propagation delay:

8 ns typical for 5 V operation

10 ns typical for 3.3 V operation

Isolation voltages: AC 1500Vrms

High ESD rating:

ESDA/JEDEC JS-001-2017

Human body model (HBM) \pm 7kV, single side

3 V to 5.5 V level translation

Wide temperature range: -40°C to 125°C

8-PIN, RoHS-compliant, DFN package(3mm*2mm)

APPLICATIONS

General-purpose multichannel isolation

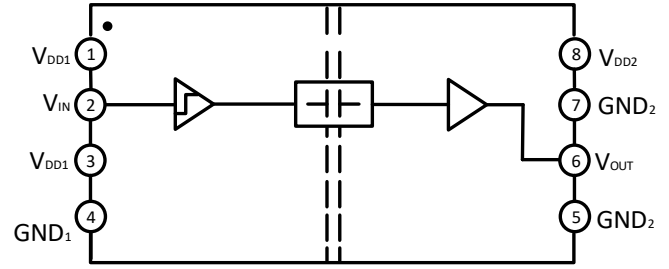
Industrial field bus isolation

GENERAL DESCRIPTION

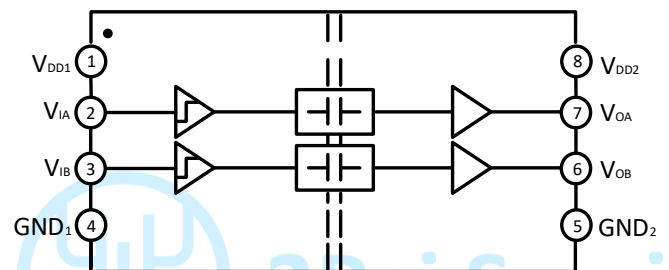
The π 1xxxxx are 2PaiSemi digital isolators product family based on *iDivider* technology. By using matured standard semiconductor CMOS technology and innovative design, these isolation components provide outstanding performance characteristics superior to alternatives such as optocoupler devices and other integrated isolators. The π 1xxxxx isolator data channels are independent and are available in a variety of configurations with a withstand voltage rating of 1.5 kV rms to 6.0 kV rms and the data rate from DC up to 600Mbps (see the Ordering Guide). The devices operate with the supply voltage on either side ranging from 3.0 V to 5.5 V, providing compatibility with lower voltage systems as well as enabling voltage translation functionality across the isolation barrier.

The fail-safe state is available in which the outputs transition to a preset state when the input power supply is not applied.

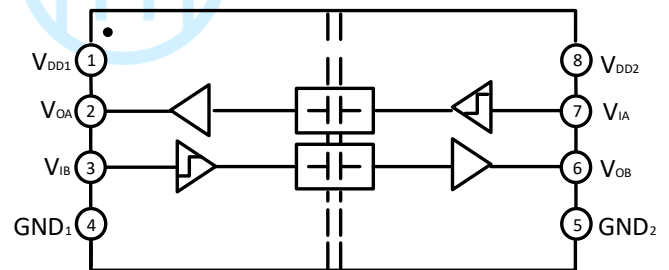
FUNCTIONAL BLOCK DIAGRAMS



(a) π 110M(E)1x



(b) π 120M(E)1x



(c) π 122M(E)1x

Figure1. Functional Block Diagram

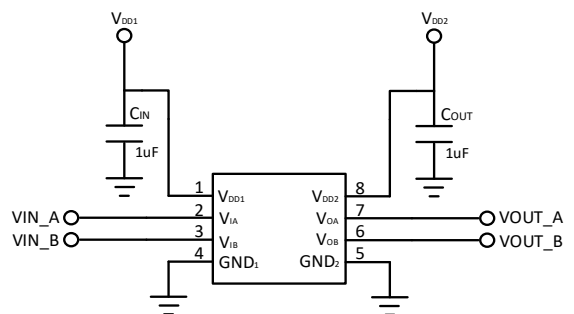


Figure2. π 120M1x Typical Application Circuit

Rev.1

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