



New Product Announcement

PI3CSW12

High-Speed I3C 1:2 Multiplexer/DeMultiplexer Switch and Signal Enable

The PI3CSW12 is a high-bandwidth switch specially designed for the switching of high-speed I3C signals in communications, server applications, and notebooks with hubs or controllers with limited I3C I/O.

The PI3CSW12's wide 1.6GHz bandwidth allows signals to pass with minimum edge and phase distortion. The device multiplexes differential outputs from an I3C host device to one of two corresponding outputs.

The switch is bidirectional with little or no attenuation of the high-speed signals at the outputs. It is designed for low bit-to-bit skew with high channel-to-channel noise isolation, and is compatible with various standards, such as high-speed I3C (up to 30Mbps).

It is available in the high density UQFN1520-10 package.



The Diodes Advantage

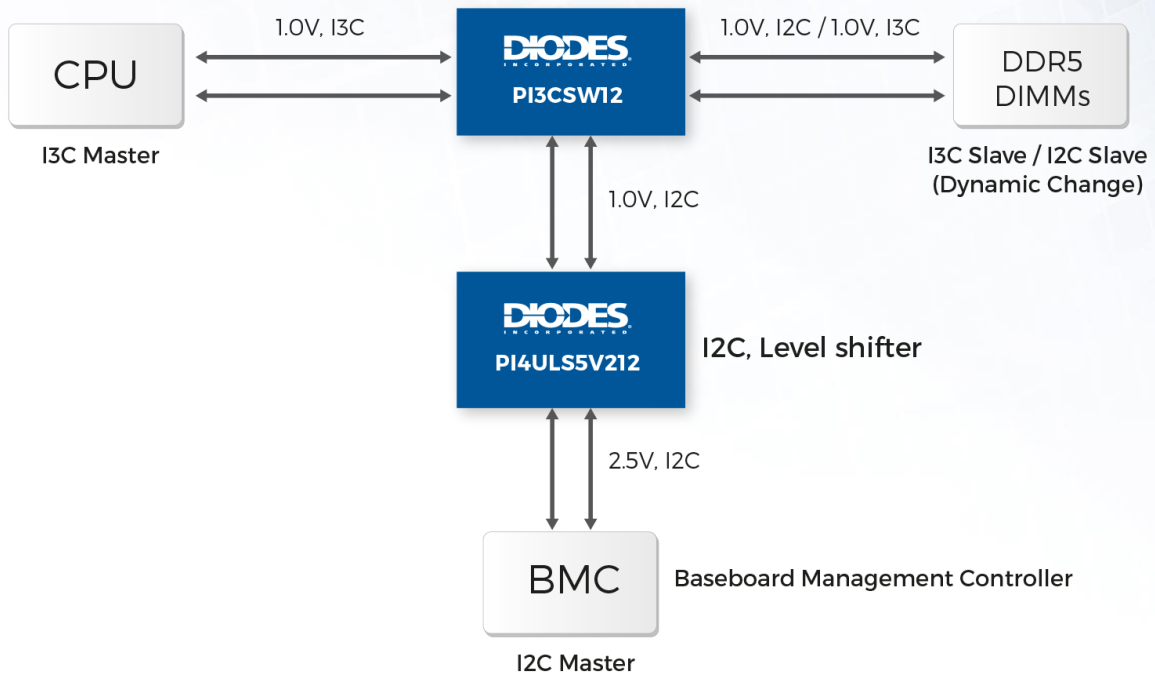
- **Low On-resistance and On-Capacitance with High Bandwidth**
Prevents signal loss and degradation, reducing the error on output signals, improving overall signal integrity
- **High I/O ESD Protection – 12kV HBM and ± 8 kV Contact Discharge (IEC61000-4-2)**
Robust product improving system level reliability
- **First I3C switch in UQFN package**
Simple I2C upgrade to I3C path
- **5-V tolerant I/O with 1.8V compatible control I/O**
Wide I2C and I3C compatibility as well as GPIO applications

Applications

- Server – servers and Workstations
- PC, Computing, notebooks
- Industrial PCs
- Communication



Typical Application Circuit



I3C Mux/Switch Overview

Part Number	Description	Type of Switch	Supply Voltage (V)	Configuration	Packages
PI3CSW12	High-Speed I3C	Analog	2.3 ~ 3.6	2-channel Multiplexer, 2:1/1:2	UQFN (ZUA10) MSL 1 PPF

Datasheet:

<https://www.diodes.com/assets/Datasheets/PI3CSW12.pdf>

Ordering Information

Part Numbers	Package Code	Package	Reel Size	# per Reel
PI3CSW12ZUAEX	ZUA	UQFN1520-10	7"	3000