

# PI2SSD3212

1.35V/ 1.5V/1.8V 14 bit 2:1 SSD Switch

## Description

This 14-bit SSD switch is designed for 1.35V/ 1.5V/ 1.8V supply voltage, POD\_12, SSTL\_135, SSTL\_15 or SSTL\_18 signaling and CMOS select input signals. It is designed for DDR2 or DDR3 memory bus with speed up to 5Gbps. It supports DDR3 1866 Mbps.

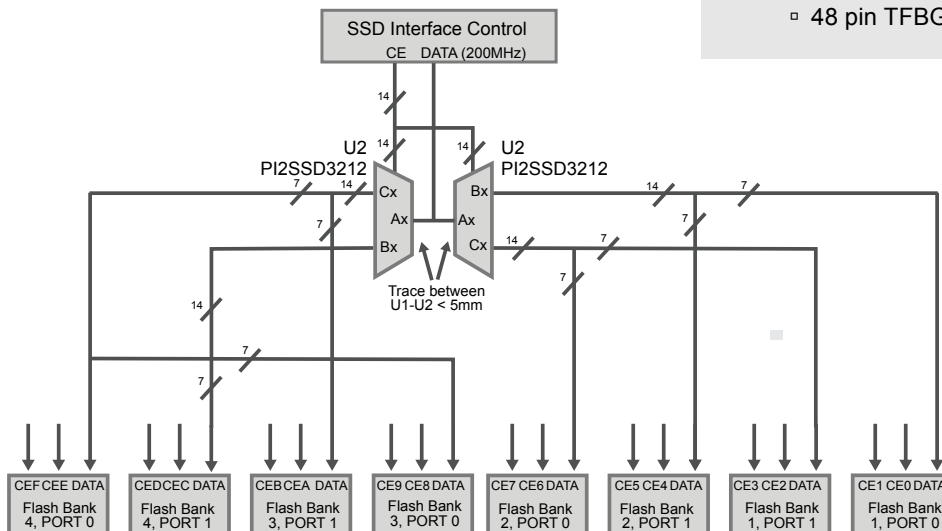
PI2SSD3212 has a 1:2 demux or 2:1 mux topology. All 14-bit channels can be switched to one of the two ports simultaneously with the SEL input. This device also allows all ports to be disconnected.

PI2SSD3212 uses Pericom's proprietary high speed switch technology providing consistent high bandwidth across all channels, with very little insertion loss, cross-talk, and bit to bit skew. It is available in a 52-pin TQFN 3.5x9x0.4mm package and 48-pin TFBGA 4.5x4.5x0.8mm package.

## Applications

- DDR3/DDR4 Memory Bus System
- SSD Memory Bus System
- Flash Memory Array
- sub system
- High Speed multiplexing
- NVDIMM Module

## Application Diagram



## Features

- 14 bit 2:1 switch that supports high speed ONFI DDR3 800 2133 Mbps
- VDD 1.35V/ 1.5V/ 1.8V
- Flow through pinout option for easy layout
- SEL and Global Enable
- 110  $\mu$ A typ. operating current at 1.35V VDD.
- High impedance and low Coff channel output when disabled or deselected
- Low RON: 8 $\Omega$  typical
- 3dB Bandwidth: 3.3GHz
- Low insertion loss: -0.7dB ( $0 \leq f \leq 1$  GHz)
- Low return loss: -23dB ( $0 \leq f \leq 1$  GHz)
- Low cross-talk for high speed channels: -25dB typ. ( $0 < f < 2$ GHz)
- High off-isolation: -28dB ( $0 \leq f \leq 1$  GHz)
- Low bit-to-bit skew 20ps Max
- ESD: 2KV HBM
- POD\_12, SSTL\_12, SSTL\_135, SSTL\_15 or SSTL\_18 signaling
- Packaging (Pb-free and Green)
  - 52 pin TQFN (3.5x9x0.4mm)
  - 48 pin TFBGA (4.5x4.5x0.8mm)