

IMX3102

I3C Basic 2:1 Bus Multiplexer

**Description**

The IMX3102 is a 2:1 I3C basic bus multiplexer switch with integrated Temperature Sensor for I3C and I<sup>2</sup>C applications. It is designed to be used for various motherboard applications.

There are two master ports (Master port 0 and Master port 1) and one slave port. Any one of those two Master ports can be selected as Active Master which has the control of the slave port as well as the IMX3102 itself.

**Applications**

- Server boards
- PCs/notebook motherboards
- Embedded automation

**Features**

- 2:1 bus multiplexer
- Two wire programmable I<sup>2</sup>C or I3C bus serial interface
- Single device load on the Host bus
- Up to 12.5MHz transfer rate
- Single 1.8V power supply input
- 1.0V VLDO output at VIO pin
- Supports 1.0V, 1.1V, and 1.2V Push-Pull IO levels
- Supports 1.0V, 1.1V, 1.2V, 1.8V, 2.5V, and 3.3V open-drain IO levels
- Integrated Temperature Sensor; 0.5°C accuracy with 0.25°C resolution
- Packet Error Check (PEC) function, Parity Error Check function
- Bus reset function
- In-band interrupt (IBI)
- Programmable I<sup>2</sup>C, I3C bus addressing scheme
- 9-pin thermally enhanced DFN package
- Temperature: Industrial range of -40°C to 125°C

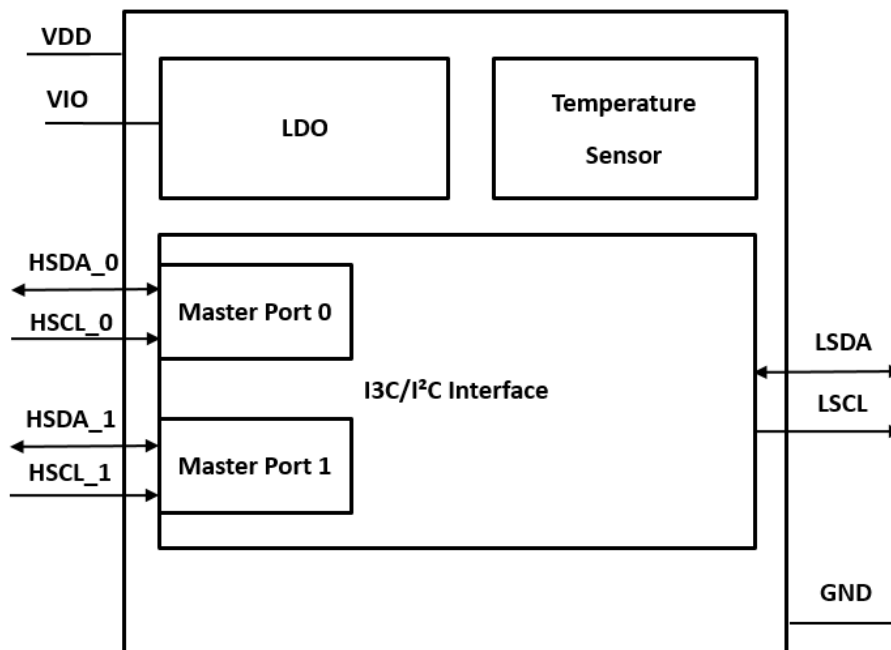


Figure 1. Block Diagram

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