

8 Channel SMBus and I²C Switch

1 Features

- I²C Bus and SMBus compatible
- SCL Frequency: 0 ~ 1MHz
- 1-of-8 Bidirectional translating switches
- Active-low reset input $\overline{\text{RESET}}$
- Three address pins, allowing up to eight GXA548 devices on the I²C Bus
- Allows voltage-level translation between 1.8V, 2.5V, 3.3V, 5V buses
- Low on-resistance, low standby current
- Supply voltage: 1.65V ~ 5.5V
- Support hot insertion
- Package information:

PART NUMBER	PACKAGE	BODY SIZE(mm ²)
GXA548U	TSSOP-24	7.80 × 4.40

2 Applications

- Servers
- Routers
- Products with I²C slave address conflicts

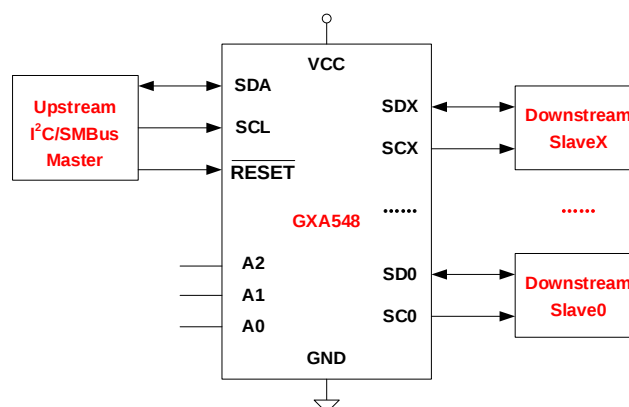
3 Description

The GXA548 is a quad bidirectional translating switch controlled via the I²C bus. The SCL/SDA upstream pair fans out to four downstream pairs, or channels. Any individual SCX / SDX channel or combination of channels can be selected, determined by the contents of the programmable control register.

An active-low reset input $\overline{\text{RESET}}$ allows the GXA548 to recover from a situation in which one of the downstream I²C buses is stuck in a low state. Pulling $\overline{\text{RESET}}$ low resets the I²C state machine and causes all the channels to be deselected, as does the internal power-on reset function.

The pass gates of the switches are constructed such that the VCC pin can be used to limit the maximum high voltage, which will be passed by the GXA548. This allows the use of different bus voltages on each pair, so that 1.8V, 2.5V, or 3.3V parts can communicate with 5-V parts without any additional protection. External pull-up resistors pull the bus up to the desired voltage level for each channel. All I/O pins are 5.5-V tolerant.

Figure 1 Simplified Diagram of GXA548



10 Ordering Information

Order Number	Chip Model	Package	Standard Quantity	Note
GXA548U-T&R	GXA548U	TSSOP-24	5000	Tape & Reel