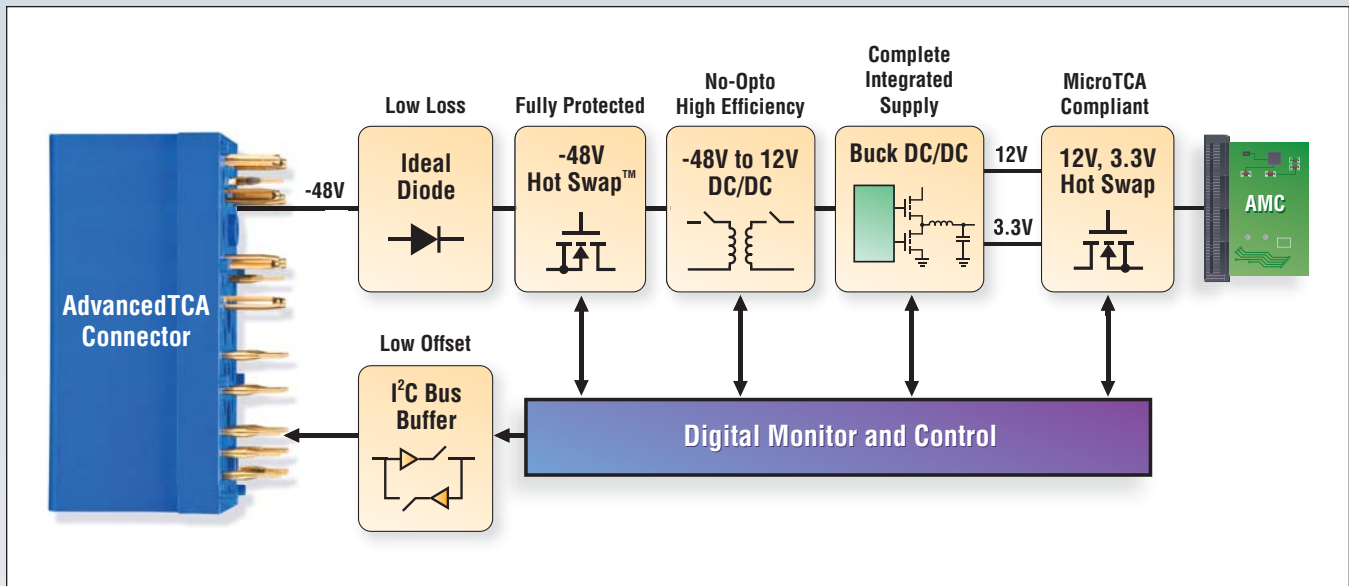


I²C & SMBus Buffers & Accelerators



I²C bus buffers and accelerators offer capacitive isolation and active pull-ups to eliminate common 2-wire bus problems that occur when many nodes are added to a bus. A bus buffer is commonly used in a high availability Hot Swap environment or when address conflicts occur. These devices feature level translation capabilities, stuck bus recovery, 6kV ESD protection and up to 400kHz operation.

Part Number	I ² C Products	Enable	Ready	Stuck Bus	Low Offset	Package
LTC [®] 1694	Bus Accelerators					SOT-23
LTC1694-1						SOT-23
LTC4311		•				2mm x 2mm DFN, SC70
LTC4300A-1	Bus Buffers	•	•			MSOP
LTC4300A-2			•			MSOP
LTC4300A-3		•				3mm x 3mm DFN, MSOP
LTC4303		•	•	•		3mm x 3mm DFN, MSOP-8
LTC4304		•	•	•		3mm x 3mm DFN, MSOP-10
LTC4307		•	•	•	•	3mm x 3mm DFN, MSOP-8
LTC4308		•	•	•	•	3mm x 3mm DFN, MSOP-8
LTC4309		•	•	•	•	3mm x 4mm DFN, SSOP-16
LTC4301		Supply Independent Bus Buffers	•	•		
LTC4301L	•		•			3mm x 3mm DFN, MSOP
LTC4305	2:1 Bus Mux			•		5mm x 4mm DFN, SSOP-16
LTC4306	4:1 Bus Mux			•		5mm x 4mm QFN, SSOP-24

▼ Info & Free Samples

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AdvancedTCA[®]

AdvancedMC[™]

μTCA[™] **PICMG[®]**

CompactPCI[®] Express

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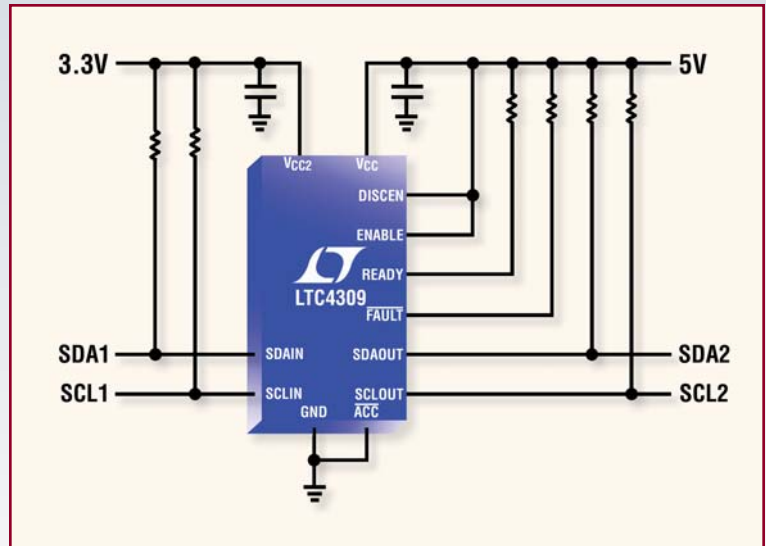
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Low Offset Hot Swappable Bus Buffer Expands ATCA Bus

The LTC4309 hot swappable 2-wire bus buffer allows I/O card insertion into a live backplane without corruption of the data and clock busses. The LTC4309 provides bidirectional buffering, keeping the backplane and card capacitances isolated. Low offset and high V_{OL} tolerance allows cascading of multiple devices on the clock and data busses.

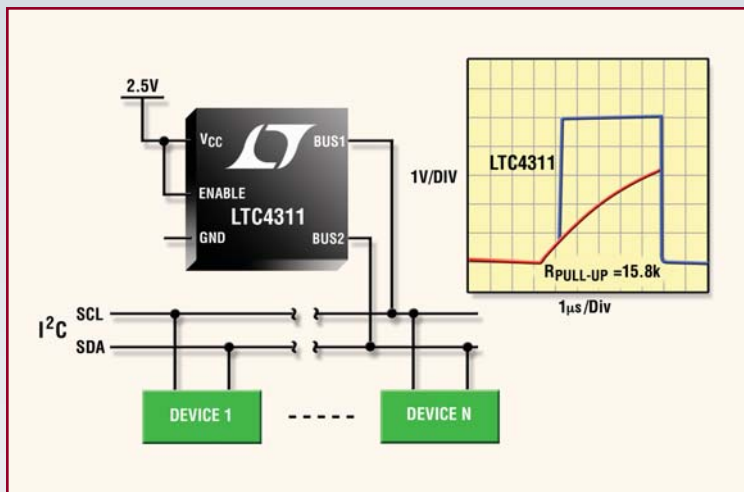
FEATURES:

- Prevents SDA and SCL Corruption During Live Board Insertion and Removal from Backplane
- 60mV Buffer Offset Independent of Load
- Optional Disconnect when Bus is Stuck Low
- Level Shift 2.5V, 3.3V and 5V Busses
- ± 6 kV Human Body Model ESD Ruggedness
- 12-Pin 4mm x 3mm DFN and 16-Lead SSOP Packages



www.linear.com/4309

400kHz Rise Time Accelerator Improves Heavily Loaded I²C/SMBus System Reliability



The LTC4311 is a dual I²C active pull-up designed to enhance data transmission speed and reliability for bus loading conditions well beyond the 400pF I²C specification limit. The LTC4311 operates at supply voltages from 1.6V to 5.5V and is also compatible with SMBus. The LTC4311 allows multiple device connections or a longer, more capacitive interconnect without compromising slew rates or bus performance, using two slew limited pull-up currents.

www.linear.com/4311

FEATURES:

- Improves I²C Bus Rise Time Transition
- Ensures Data Integrity with Multiple Devices on the I²C Bus
- Wide Supply Voltage Range: 1.6V to 5.5V
- Up to 400kHz Operation
- ± 8 kV Human Body Model ESD Ruggedness
- 2mm x 2mm DFN and SC70 Packages

