



# New Product Announcement

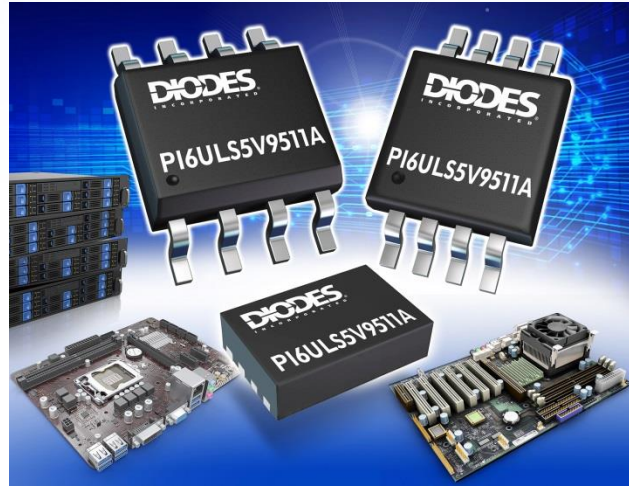
PI6ULS5V9511A

## Hot Swappable I<sup>2</sup>C Bus SMBus Buffer

The PI6ULS5V9511A is a hot swappable I<sup>2</sup>C-bus and SMBus buffer that allows I/O card insertion into a live backplane without corrupting the data and clock buses. Control circuitry prevents the backplane from being connected to the card until a stop command or bus idle occurs on the backplane without bus contention on the card.

When the connection is made, the PI6ULS5V9511A provides bidirectional buffering, keeping the backplane and card capacitances isolated.

The PI6ULS5V9511A rise time accelerator circuitry allows the use of weaker DC pull-up currents while still meeting rise time requirements. The PI6ULS5V9511A incorporates a digital ENABLE input pin, which enables the device when asserted HIGH and forces the device into a low current mode when asserted LOW, and an open-drain READY output pin, which indicates that the backplane and card sides are connected together (HIGH) or not (LOW).



### The Diodes Advantage

- **Bidirectional buffer for SDA and SCL lines increases fan out**  
I<sup>2</sup>C/SMBus Bus Expansion beyond the 400pF Limitation
- **Compatible with I<sup>2</sup>C Standard Mode, I<sup>2</sup>C Fast Mode and SMBus Standards (Up to 400kbit/s operation)**
- **Low Shutdown Mode Supply Current <0.1μA**  
Low power consumption in shutdown mode
- **Wide Supply Voltage Range: 2.7V to 5.5V**  
Allow 2.7V to 5.5V I<sup>2</sup>C bus bidirectional level translation
- **ESD Protection Exceeds 4000 V HBM**  
Better ESD performance in the market
- **Available in SOIC-8 (W), MSOP-8 (U) and UDFN2020-8 (ZW) Package**  
Small form factor (UDFN-8) minimize design space and save cost

### Applications

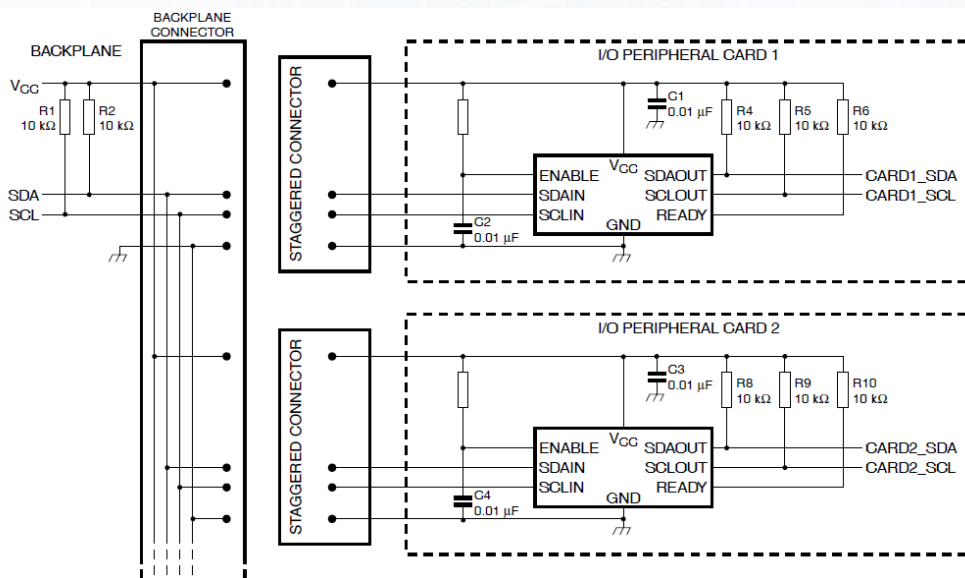
- cPCI, VME, AdvancedTCA cards and other multipoint backplane cards



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## PI6ULS5V9511A

### Typical Application Circuit



### Ordering information

Part Numbers	Package Code	Package	Reel Size	# per Reel
PI6ULS5V9511AUEx	U	Mini Small Outline Package (MSOP-8)	13"	2,500
PI6ULS5V9511AWEx	W	150mil-Wide (SO-8)	13"	2,500
PI6ULS5V9511AZWEx	ZW	2x3 (UDFN)	7"	3,000

### Cross Reference

Competitors	Part#	Package	Diodes Ordering Part#
NXP	PCA9510A/11A	D	PI6ULS5V9511AWEx
		DP	PI6ULS5V9511AUEx
TI	TCA4311A	D	PI6ULS5V9511AWEx
		DGK	PI6ULS5V9511AUEx
ON Semi	PCA9511A	DR2G	PI6ULS5V9511AWEx
		DMR2G	PI6ULS5V9511AUEx
ADI	LTC4300-1 LTC4300A-1	CMS8 IMS8	PI6ULS5V9511AUEx