

Bi-directional 8-Bit Level Shifter for Open-Drain and Push-Pull Application

The PI4ULS5V108 supports up to 100MHz up translation and greater than 100MHz down translation at $\leq 30\text{pF}$ cap load and up to 40 MHz up/down translation at 50pF cap load which allows the LSF family to support more consumer or telecom interfaces (MDIO or SDIO). It has bi-directional voltage translation without the need for DIR pin which minimizes system effort(for PMBus, I²C, or SMBus).

The PI4ULS5V108 is 5V tolerant on I/O port which makes it compatible with TTL levels in industrial and telecom applications.

Different voltage translation levels can be used on each channel increases flexibility.



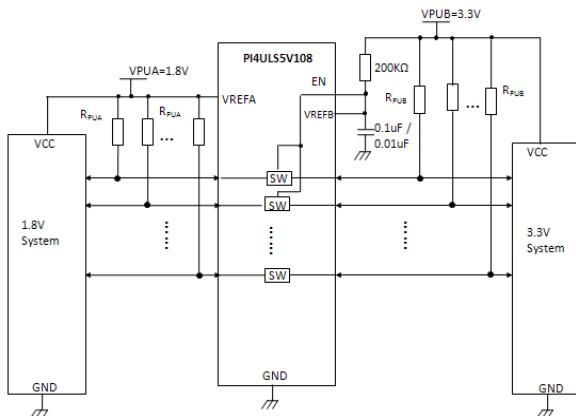
The Diodes Advantage

- **Supports up to 100MHz**
High performance
- **Allows Bi-directional voltage translation between 0.95V~3.3V**
Wide range voltage support
- **Low Standby Current**
Power efficiency
- **Low R_{DS(on)} reduces signal distortion**
Higher quality signals
- **I/O port tolerant to 5V signals allowing TTL signals interface**
Flexible design
- **Package: TSSOP-20, VQFN2.5x4.5-20**
Industry standard packages

Applications

- Mobile phones and other portable Devices
- SMBus, PMBus, I²C
- GPIO, MDIO, SDIO, SVID, UART, and SPI

Typical Application Circuit



PI4ULS5V108

Ordering Information

Part Numbers	Package Code	Package	Reel Size	# per Reel
PI4ULS5V108LEX	L	20-pin, 173mm Wide TSSOP	13"	3,000
PI4ULS5V108ZBAEX	ZBA	20-pin, 2.5x4.5 (VQFN)	13"	2,500

Cross Reference

Competitors	Package	Diodes Ordering Part #
TI	LSF0108PWR (TSSOP)	PI4ULS5V108LEX
	LSF0108RKS (VQFN)	PI4ULS5V108ZBAEX
NXP	NVT2008PW (TSSOP20)	PI4ULS5V108LEX
	NVT2008BQ (DHVQFN20)	PI4ULS5V108ZBAEX