



## DS96173/ $\mu$ A96173/DS96175/ $\mu$ A96175 Quad Differential Line Receivers

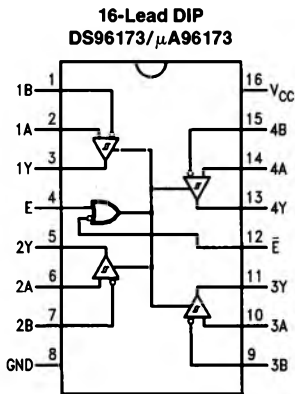
### General Description

The DS96173/ $\mu$ A96173 and DS96175/ $\mu$ A96175 are high speed quad differential line receivers designed to meet EIA Standard RS-485. The devices have TRI-STATE outputs and are optimized for balanced multipoint data bus transmission at rates up to 10 Mbps. The receivers feature high input impedance, input hysteresis for increased noise immunity, and input sensitivity of 200 mV over a common mode input voltage range of  $-12\text{V}$  to  $+12\text{V}$ . The receivers are therefore suitable for multipoint applications in noisy environments. The DS96173/ $\mu$ A96173 features an active high and active low Enable, common to all four receivers. The DS96175/ $\mu$ A96175 features separate active high Enables for each receiver pair. Compatible RS-485 drivers, transceivers, and repeaters are also offered to provide optimum bus performance. The respective device types are DS96172/29174,  $\mu$ A96172/96174, DS96176,  $\mu$ 96176 and DS96177/96178,  $\mu$ A96177/96178.

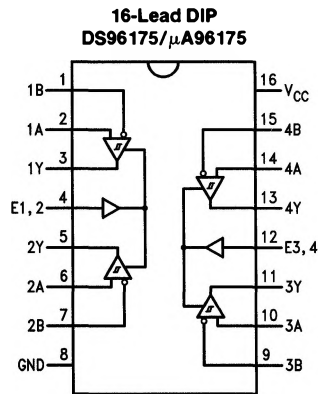
### Features

- Meets EIA Standard RS-485, RS-422A, RS-423A
- Designed for multipoint bus applications
- TRI-STATE Outputs
- Common mode input voltage range:  $-12\text{V}$  to  $+12\text{V}$
- Operates from single  $+5\text{V}$  supply
- Input sensitivity of  $\pm 200\text{ mV}$  over common mode range
- Input hysteresis of  $50\text{ mV}$  typical
- High input impedance
- Fail-safe input/output features drive output HIGH when input is open
- DS96173/ $\mu$ A96173/DS96175/ $\mu$ A96175 are lead and function compatible with SN75173/75175 or the AM26LS32/MC3486 respectively.

### Connection Diagrams



TL/F/9628-1



TL/F/9628-2

**Order Number DS96173DC/ $\mu$ A96173DC, DS96175DC/ $\mu$ A96175DC**  
**See NS Package Number J16A**

**Order Number DS96173PC/ $\mu$ A96173PC, DS96175PC/ $\mu$ A96175PC**  
**See NS Package Number M16B**