

DS26F31C/DS26F31M

Quad High Speed Differential Line Driver

General Description

The DS26F31 is a quad differential line driver designed for digital data transmission over balanced lines. The DS26F31 meets all the requirements of EIA Standard RS-422 and Federal Standard 1020. It is designed to provide unipolar differential drive to twisted-pair or parallel-wire transmission lines.

The DS26F31 offers improved performance due to the use of state-of-the-art L-FAST bipolar technology. The L-FAST technology allows for higher speeds and lower currents by utilizing extremely short gate delay times. Thus, the DS26F31 features lower power, extended temperature range, and improved specifications.

The circuit provides an enable and disable function common to all four drivers. The DS26F31C/DS26F31M features TRI-STATE® outputs and logical OR-ed complementary enable inputs. The inputs are all LS compatible and are all one unit load.

The DS26F31C/DS26F31M offers optimum performance when used with the DS26F32 Quad Differential Line Receiver.

Features

- Military temperature range
- Low power version
- Output skew—2.0 ns typical
- Input to output delay—12 ns
- Operation from single +5.0V supply
- 16-lead ceramic DIP Package
- Outputs won't load line when $V_{CC} = 0V$
- Output short circuit protection
- Complementary outputs
- Meets the requirements of EIA standard RS-422
- High output drive capability for 100Ω terminated transmission lines

Connection and Logic Diagrams

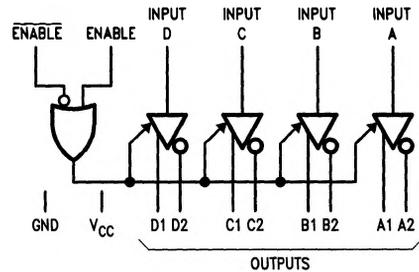
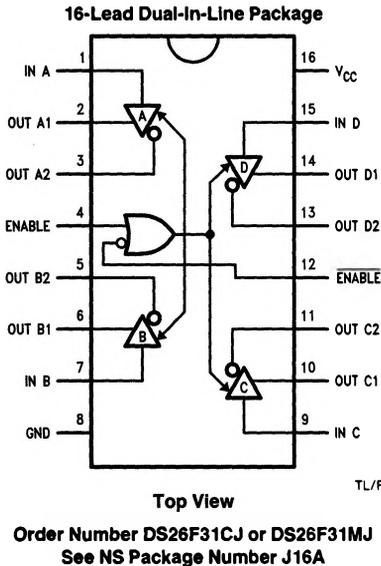


FIGURE 1. Logic Symbol

Function Table (Each Driver)

Input	Enable	Outputs	
		Y	Z
H	H	H	L
L	H	L	H
X	L	Z	Z

H = High Level
L = Low Level

X = Immaterial
Z = High Impedance (Off)