

Product Overview

MC74LVX4051: Analog Multiplexer/Demultiplexer (Mux/Demux)

For complete documentation, see the data sheet.

The MC74LVX4051 utilizes silicon-gate CMOS technology to achieve fast propagation delays, low ON resistances, and low leakage currents. This analog multiplexer/demultiplexer controls analog voltages that may vary across the complete power supply range (from V_{CC} to V_{EE}).

The LVX4051 is similar in pinout to the LVX8051, HC4051A and the metal-gate MC14051B. The Channel-Select inputs determine which one of the Analog Inputs/Outputs is to be connected, by means of an analog switch, to the Common Output/Input. When the Enable pin is HIGH, all analog switches are turned off.

The Channel-Select and Enable inputs are compatible with standard CMOS outputs. These inputs are over-voltage tolerant (OVT) for level translation from 6.0 V down to 3.0 V.

This device has been designed so the ON resistance (R_{on}) is more linear over input voltage than R_{on} of metal-gate CMOS analog switches, and High-Speed CMOS analog switches.

Features

- Fast Switching and Propagation Speeds
- Low Crosstalk Between Switches
- Analog Power Supply Range ($V_{CC} - V_{EE}$) = -3.0 V to +3.0 V
- Digital (Control) Power Supply Range ($V_{CC} - GND$) = 2.5 to 6.0 V
- Improved Linearity and Lower ON Resistance Than Metal-Gate, HSL, or VHC Counterparts
- Low Noise
- Designed to Operate on a Single Supply with $V_{EE} = GND$, or Using Split Supplies up to +/- 3.3 V
- Break-Before-Make Circuitry
- Pb-Free Packages are Available*

Part Electrical Specifications

Product	Compliance	Status	Channels	V_{CC} Min (V)	V_{CC} Max (V)	t_{pd} Max (ns)	I_O Max (mA)	Package Type
MC74LVX4051DG	Pb-free Halide free	Active	1	2.5	6	23	null	SOIC-16
MC74LVX4051DR2G	Pb-free Halide free	Active	1	2.5	6	23	null	SOIC-16
MC74LVX4051DTG	Pb-free Halide free	Active	1	2.5	6	23	null	TSSOP-16
MC74LVX4051DTR2G	Pb-free Halide free	Active	1	2.5	6	23	null	TSSOP-16
MC74LVX4051MNTWG	Pb-free Halide free	Active	1	2.5	6	23	null	QFN-16

For more information please contact your local sales support at www.onsemi.com.

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