

Product Overview

MC74LVXT4053: Analog Multiplexer/Demultiplexer (Mux/Demux)

For complete documentation, see the data sheet.

The MC74LVXT4053 utilizes silicon-gate CMOS technology to achieve fast propagation delays, low ON resistances, and low OFF 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 LVXT4053 is similar in pinout to the LVX8053, the HC4053A, and the metal-gate MC14053B. 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 TTL levels; with pull-up resistors, they are compatible with LSTTL outputs.

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

Features

- Select Pins Compatible with TTL Levels
- 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 +/-3.0 V
- Break-Before-Make Circuitry
- Pb-Free Packages are Available*

For more features, see the data sheet

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
MC74LVXT4053DG	Pb-free	Active	3	2.5	6	23	null	SOIC-16
	Halide free							
MC74LVXT4053DR2G	Pb-free	Active	3	2.5	6	23	null	SOIC-16
	Halide free							
MC74LVXT4053DTG	Pb-free	Active	3	2.5	6	23	null	TSSOP-16
	Halide free							
MC74LVXT4053DTR G	Pb-free	Active	3	2.5	6	23	null	TSSOP-16
	Halide free							

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