

## Product Overview

### NLAST4051: Analog Multiplexer/Demultiplexer

For complete documentation, see the data sheet.

The NLAST4051 is an improved version of the MC14051 and MC74HC4051 fabricated in sub-micron Silicon Gate CMOS technology for lower  $R_{DS(on)}$  resistance and improved linearity with low current. This device may be operated either with a single supply or dual supply up to  $\pm 3$  V to pass a 6  $V_{PP}$  signal without coupling capacitors.

When operating in single supply mode, it is only necessary to tie  $V_{EE}$ , pin 7 to ground. For dual supply operation,  $V_{EE}$  is tied to a negative voltage, not to exceed maximum ratings. Translation is provided in the device, the Address and Inhibit are standard TTL level compatible. For CMOS compatibility see NLA4051. Pin for pin compatible with all industry standard versions of '4051'.

### Features

- Improved  $R_{DS(on)}$  Specifications
- Pin for Pin Replacement for MAX4051 and MAX4051A
  - One Half the Resistance Operating at 5.0 Volts
- Single or Dual Supply Operation
  - Single 3-5 Volt Operation, or Dual  $\pm 3$  Volt Operation
  - With  $V_{CC}$  of 3.0 to 3.3 V, Device Can Interface with 1.8 V Logic, No Translators Needed
  - Address and Inhibit Logic are Over-Voltage Tolerant and May Be Driven Up +6 V Regardless of  $V_{CC}$
- Address and Inhibit Pins Standard TTL Compatible
  - Greatly Improved Noise Margin Over MAX4051 and MAX4051A
  - True TTL Compatibility  $V_{IL} = 0.8$  V,  $V_{IH} = 2.0$  V
- Improved Linearity Over Standard HC4051 Devices
- Popular SOIC, and Space Saving TSSOP, and QSOP 16 Pin Packages
- Pb-Free Packages are Available

### Part Electrical Specifications

Product	Compliance	Status	Channels	Number of Switches	Configuration	$I_{CC}$ Max ( $\mu$ A)	$r_{on}$ Max ( $\Omega$ )	$V_{CC}$ Min (V)	$V_{CC}$ Max (V)	Package Type
NLA4051DTR2G	Pb-free	Active	1	8	SP8T	80	37	2.5	5.5	TSSOP-16
	Halide free									
NLVAST4051DTR2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	1	8	SP8T	80	37	2.5	5.5	TSSOP-16

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