

## Product Overview

### MC74LCX16374: Low Voltage CMOS 16-Bit D Flip-Flop

For complete documentation, see the data sheet.

The MC74LCX16374 is a high performance, non-inverting 16-bit D-type flip-flop operating from a 2.3 to 3.6V supply. The device is byte controlled. Each byte has separate Output Enable and Clock Pulse inputs. These control pins can be tied together for full 16-bit operation. High impedance TTL compatible inputs significantly reduce current loading to input drivers while TTL compatible outputs offer improved switching noise performance. A VI specification of 5.5V allows MC74LCX16374 inputs to be safely driven from 5V devices. The MC74LCX16374 consists of 16 edge-triggered flip-flops with individual D-type inputs and 5V-tolerant 3-state true outputs. The buffered clocks (CPn) and buffered Output Enables (OE $\bar$ n) are common to all flip-flops within the respective byte. The flip-flops will store the state of individual D inputs that meet the setup and hold time requirements on the LOW-to-HIGH Clock (CP) transition. With the OE $\bar$ n LOW, the contents of the flip-flops are available at the outputs. When the OE $\bar$ n is HIGH, the outputs go to the high impedance state. The OE $\bar$ n input level does not affect the operation of the flip-flops.

### Features

- Designed for 2.3 to 3.6V VCC Operation
- 6.2ns Maximum t<sub>pd</sub>
- 5V Tolerant - Interface Capability With 5V TTL Logic
- Supports Live Insertion and Withdrawal
- IOFF Specification Guarantees High Impedance When VCC = 0V
- LVTTTL Compatible
- LVCMOS Compatible
- 24mA Balanced Output Sink and Source Capability
- Near Zero Static Supply Current in All Three Logic States (20mA) Substantially Reduces System Power Requirements
- Latchup Performance Exceeds 500mA

For more features, see the data sheet

### Part Electrical Specifications

Product	Compliance	Status	Type	Channels	V <sub>CC</sub> Min (V)	V <sub>CC</sub> Max (V)	t <sub>pd</sub> Max (ns)	I <sub>O</sub> Max (mA)	Package Type
M74LCX16374DTR2G	Pb-free	Active	D-Type	16	2	3.6	6.2	24	TSSOP-48
	Halide free								
MC74LCX16374DTG	Pb-free	Active	D-Type	16	2	3.6	6.2	24	TSSOP-48
	Halide free								

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