

MM74HCT74

Dual D Flip-Flop with Preset and Clear

Product Overview

For complete documentation, see the data sheet.

The MM74HCT74 utilizes advanced silicon-gate CMOS technology to achieve operation speeds similar to the equivalent LS-TTL part. It possesses the high noise immunity and low power consumption of standard CMOS integrated circuits, along with the ability to drive 10 LS-TTL loads. This flip-flop has independent data, preset, clear, and clock inputs and Q and Q# outputs. The logic level present at the data input is transferred to the output during the positive-going transition of the clock pulse. Preset and clear are independent of the clock and accomplished by a low level at the appropriate input. The 74HCT logic family is functionally and pin-out compatible with the standard 74LS logic family. All inputs are protected from damage due to static discharge by internal diode clamps to VCC and ground. MM74HCT devices are intended to interface between TTL and NMOS components and standard CMOS devices. These parts are also plug-in replacements for LS-TTL devices and can be used to reduce power consumption in existing designs.

Features

- Typical propagation delay: 20 ns
- Low quiescent current: 40 μ A maximum (74HCT Series)
- Low input current: 1 μ A maximum
- Fanout of 10 LS-TTL loads
- Meta-stable hardened

Applications

- This product is general usage and suitable for many different applications.

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Type	Channels	V _{CC} Min (V)	V _{CC} Max (V)	t _{pd} Max (ns)	I _O Max (mA)	Package Type
MM74HCT74M	0.242		Active	Dual D-type w/preset and clear	2	4.5	5.5	30	4.8	SOIC-14
MM74HCT74MT CX	0.2027		Active	Dual D-type w/preset and clear	2	4.5	5.5	30	4.8	TSSOP-14
MM74HCT74MX	0.2533		Active	Dual D-type w/preset and clear	2	4.5	5.5	30	4.8	SOIC-14