

**Monostable Multivibrator Dual-Element -55°C 125°C 16-Pin
PDIP Tube**

Images are for reference only

[Inquiry](#)**Manufacturer:** [Texas Instruments, Inc](#)**Package/Case:** DIP**Product Type:** Logic ICs**RoHS:** RoHS Compliant/Lead free **Lifecycle:** Active**General Description**

The 'HC4538 and 'HCT4538 are dual retriggerable/resettable monostable precision multivibrators for fixed voltage timing applications. An external resistor (RX) and an external capacitor (CX) control the timing and the accuracy for the circuit. Adjustment of RX and CX provides a wide range of output pulse widths from the Q and Q \bar terminals. The propagation delay from trigger input-to-output transition and the propagation delay from reset input-to-output transition are independent of RX and CX.

Leading-edge triggering (A) and trailing edge triggering (B) \bar inputs are provided for triggering from either edge of the input pulse. An unused "A" input should be tied to GND and an unused B \bar should be tied to VCC. On power up the IC is reset. Unused resets and sections must be terminated. In normal operation the circuit retriggers on the application of each new trigger pulse. To operate in the non-triggerable mode Q \bar is connected to B \bar when leading edge triggering (A) is used or Q is connected to A when trailing edge triggering (B) \bar is used. The period (T) is determined by the timing network. CMIN is 0pF.

Key Features

Retriggerable/Resetable Capability

Trigger and Reset Propagation Delays Independent of RX, CX

Triggering from the Leading or Trailing Edge

Q and Q\ Buffered Outputs Available

Separate Resets

Wide Range of Output Pulse Widths

Schmitt Trigger Input on A and B\ Inputs

Retrigger Time is Independent of CX

Fanout (Over Temperature Range)

Standard Outputs 10 LSTTL Loads

Bus Driver Outputs 15 LSTTL Loads

Wide Operating Temperature Range . . . -55°C to 125°C

Balanced Propagation Delay and Transition Times

Significant Power Reduction Compared to LSTTL Logic ICs

HC Types

2V to 6V Operation

High Noise Immunity: NIL = 30%, NIH = 30% of VCC at VCC = 5V

HCT Types

4.5V to 5.5V Operation

Direct LSTTL Input Logic Compatibility, VIL = 0.8V (Max), VIH = 2V (Min)

CMOS Input Compatibility, I_{IL} = 1μA at VOL, VOH

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Recommended For You

CD4070BE

Texas Instruments, Inc

DIP14

CD74HCT138E

Texas Instruments, Inc

DIP16

CD4098BE

Texas Instruments, Inc

DIP

CD74HC08E

Texas Instruments, Inc
DIP

CD74HC4075E

Texas Instruments, Inc
DIP

CD74ACT74E

Texas Instruments, Inc
DIP-14

CD74HC75E

Texas Instruments, Inc
DIP

CD4504BE

Texas Instruments, Inc
DIP16

CD4068BE

Texas Instruments, Inc
DIP

CD4081BE

Texas Instruments, Inc
DIP14

CD4001BE

Texas Instruments, Inc
DIP14

CD4512BE

Texas Instruments, Inc
DIP16

CD4069UBE

Texas Instruments, Inc
DIP14

CD74HCT151E

Texas Instruments, Inc
DIP

CD74HC04M

Texas Instruments, Inc
SOP14