

**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 'HC221 and CD74HCT221 are dual monostable multivibrators with reset. 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' terminals. Pulse triggering on the B input occurs at a particular voltage level and is not related to the rise and fall time of the trigger pulse.

Once triggered, the outputs are independent of further trigger inputs on A' and B. The output pulse can be terminated by a LOW level on the Reset (R)' pin. Trailing Edge triggering (A) and leading-edge-triggering (B) inputs are provided for triggering from either edge of the input pulse. On power up, the IC is reset. If either Mono is not used each input (on the unused device) must be terminated either high or low.

The minimum value of external resistance, RX, is typically 500. The minimum value of external capacitance, CX, is 0pF. The calculation for the pulse width is  $tW = 0.7 RXCX$  at  $VCC = 4.5V$ .

## Key Features

Overriding RESET Terminates Output Pulse

Triggering from the Leading or Trailing Edge

Q and Q\ Buffered Outputs

Separate Resets

Wide Range of Output-Pulse Widths

Schmitt Trigger on B Inputs

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, III $\mu$ A at VOL, VOH

Data sheet acquired from Harris Semiconductor

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## Recommended For You

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### 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