


Counter/Divider Single 5-Bit Decade UP 16-Pin SOIC Tube

Manufacturer:	Texas Instruments, Inc
Package/Case:	SOP16
Product Type:	Logic ICs
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

CD4017B and CD4022B are 5-stage and 4-stage Johnson counters having 10 and 8 decoded outputs, respectively. Inputs include a CLOCK, a RESET, and a CLOCK INHIBIT signal. Schmitt trigger action in the CLOCK input circuit provides pulse shaping that allows unlimited clock input pulse rise and fall times. These counters are advanced one count at the positive clock signal transition if the CLOCK INHIBIT signal is low. Counter advancement via the clock line is inhibited when the CLOCK INHIBIT signal is high. A high RESET signal clears the counter to its zero count. Use of the Johnson counter configuration permits high-speed operation, 2-input decode-gating and spike-free decoded outputs. Anti-lock gating is provided, thus assuring proper counting sequence. The decoded output are normally low and go high only at their respective decoded time slot. Each decoded output remains high for one full clock cycle. A CARRY-OUT signal completes one cycle every 10 clock input cycles in the CD4017B or every 8 clock input cycles in the CD4022B and is used to ripple-clock the succeeding device in a multi-device counting chain.

The CD4017B and CD4022B types are supplied in 16-lead hermetic dual-in-line ceramic packages (F3A suffix), 16-lead dual-in-line plastic package (E suffix), 16-lead small-outline packages (NSR suffix), and 16-lead thin shrink small-outline packages (PW and PWR suffixes). The CD4017B types also are supplied in 16-lead small-outline packages (M and M96 suffixes).

Key Features

Fully static operation

Medium speed operation...10 MHz (typ.) at VDD = 10 V

Standardized, symmetrical output characteristics

100% tested for quiescent current at 20 V

5-V, 10-V, and 15-V parametric ratings

Meets all requirements of JEDEC Tentative Standard No. 13B, "Standard Specifications for Description of 'B' Series CMOS Devices"

Applications:

Decade counter/decimal decode display (CD4017B)

Binary counter/decoder

Frequency division

Counter control/timers

Divide-by-N counting

For further application information, see ICAN-6166 "COS/MOS MSI Counter and Register Design and Applications"

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Recommended For You

CD4017BE

Texas Instruments, Inc

DIP16

CD40193BE

Texas Instruments, Inc

DIP

CD4024BM

Texas Instruments, Inc

SOP14

CD74AC161M

Texas Instruments, Inc

SOP16

CD4060BM

Texas Instruments, Inc

SOP

CD4520BE

Texas Instruments, Inc

DIP16

CD4040BE

Texas Instruments, Inc

DIP16

CD4026BE

Texas Instruments, Inc

DIP

CD4516BE

Texas Instruments, Inc

DIP16

CD4060BE

Texas Instruments, Inc

DIP16

CD4020BE

Texas Instruments, Inc

DIP16

CD40110BE

Texas Instruments, Inc

DIP

CD74HCT193E

Texas Instruments, Inc

DIP

CD4510BNSR

Texas Instruments, Inc

SOP16

CD4022BE

Texas Instruments, Inc

DIP