

**CD4020BC • CD4040BC • CD4060BC**  
**14-Stage Ripple Carry Binary Counters •**  
**12-Stage Ripple Carry Binary Counters •**  
**14-Stage Ripple Carry Binary Counters**

**General Description**

The CD4020BC, CD4060BC are 14-stage ripple carry binary counters, and the CD4040BC is a 12-stage ripple carry binary counter. The counters are advanced one count on the negative transition of each clock pulse. The counters are reset to the zero state by a logical "1" at the reset input independent of clock.

**Features**

- Wide supply voltage range: 1.0V to 15V
- High noise immunity:  $0.45 V_{DD}$  (typ.)
- Low power TTL compatibility: Fan out of 2 driving 74L or 1 driving 74LS
- Medium speed operation: 8 MHz typ. at  $V_{DD} = 10V$
- Schmitt trigger clock input

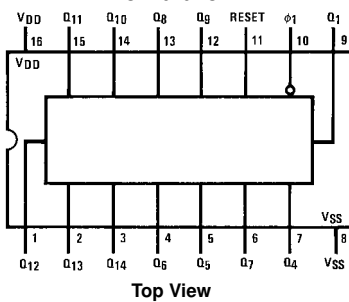
**Ordering Code:**

Order Number	Package Number	Package Description
CD4020BCM	M16A	16-Lead Small Outline Integrated Circuit (SOIC), JEDEC MS-012, 0.150" Narrow
CD4020BCN	N16E	16-Lead Plastic Dual-In-Line Package (PDIP), JEDEC MS-001, 0.300" Wide
CD4040BCM	M16A	16-Lead Small Outline Integrated Circuit (SOIC), JEDEC MS-012, 0.150" Narrow
CD4040BCSJ	M16D	16-Lead Small Outline Package (SOP), EIAJ TYPE II, 5.3mm Wide
CD4040BCN	N16E	16-Lead Plastic Dual-In-Line Package (PDIP), JEDEC MS-001, 0.300" Wide
CD4060BCM	M16A	16-Lead Small Outline Integrated Circuit (SOIC), JEDEC MS-012, 0.150" Narrow
CD4060BCN	N16E	16-Lead Plastic Dual-In-Line Package (PDIP), JEDEC MS-001, 0.300" Wide

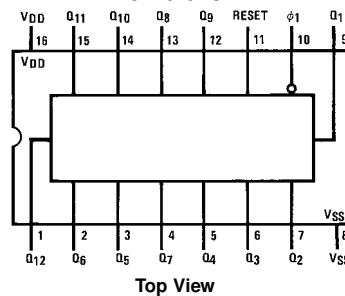
Devices also available in Tape and Reel. Specify by appending the suffix letter "X" to the ordering code.

**Connection Diagrams**

**Pin Assignments for DIP and SOIC  
CD4020BC**



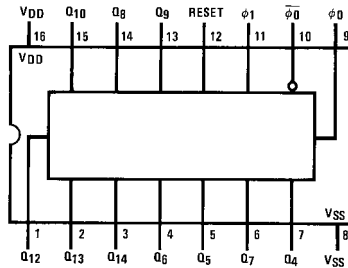
**Pin Assignments for DIP, SOIC and SOP  
CD4040BC**



CD4020BC • CD4040BC • CD4060BC 14-Stage Ripple Carry Binary Counters • 12-Stage Ripple Carry Binary Counters • 14-Stage Ripple Carry Binary Counters

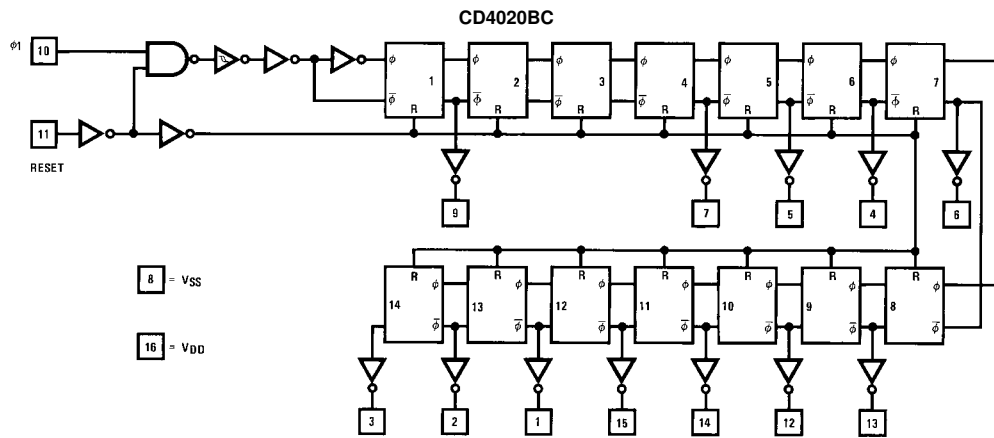
Connection Diagrams (Continued)

Pin Assignments for DIP and SOIC  
CD4060BC

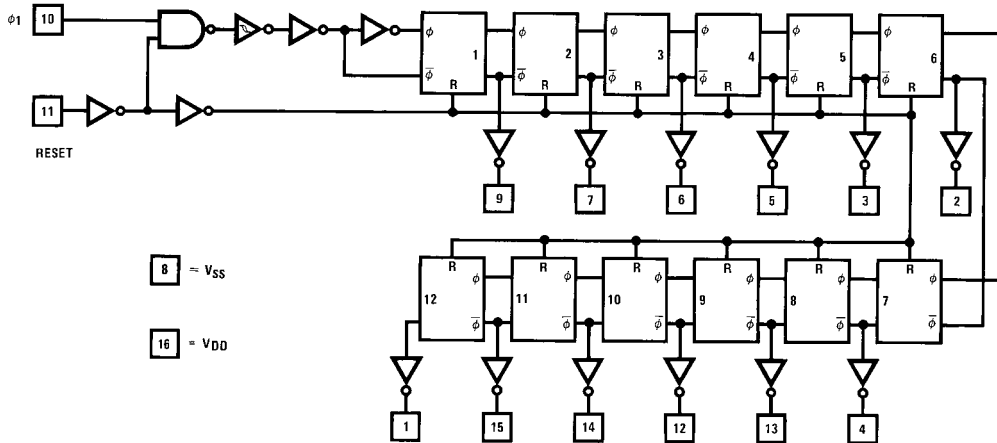


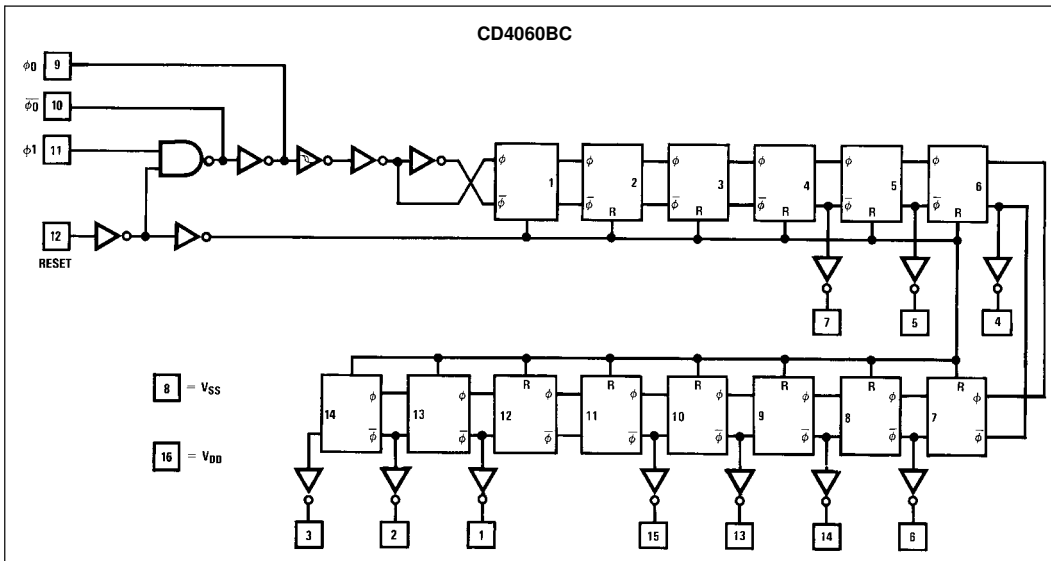
Top View

Schematic Diagrams



CD4040BC





**CD4060B Typical Oscillator Connections**

