

CD4016BM/CD4016BC Quad Bilateral Switch

General Description

The CD4016BM/CD4016BC is a quad bilateral switch intended for the transmission or multiplexing of analog or digital signals. It is pin-for-pin compatible with CD4066BM/CD4066BC.

Features

- Wide supply voltage range 3V to 15V
- Wide range of digital and analog switching ±7.5 V_{PEAK}
 "ON" resistance for 15V operation ±7.5 V_{PEAK}
 400Ω (typ.)
- Matched "ON" resistance over 15V
 - signal input ΔR
- High degree of linearity

 $\Delta R_{ON} = 10\Omega$ (typ.) 0.4% distortion (typ.)

@ $f_{IS} = 1 \text{ kHz}, V_{IS} = 5 V_{p-p},$

TA = 25°C

 $V_{DD}-V_{SS}=10V$, $R_L=10 \text{ k}\Omega$

■ Extremely low "OFF" switch leakage 0.1 nA (typ.)

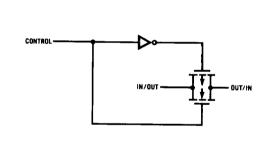
© V_{DD} - V_{SS} = 10V

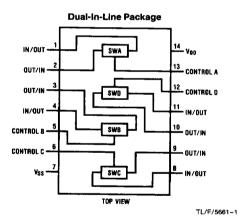
- Extremely high control input impedance
- $10^{12}\Omega$ (typ.)
- Low crosstalk between switches
- -50 dB (typ.)
- @ f_{1S} = 0.9 MHz, R_L = 1 $k\Omega$
- Frequency response, switch "ON"
- 40 MHz (typ.)

Applications

- Analog signal switching/multiplexing
 - Signal gating
 - Squelch control
 - Chopper
 - Modulator/Demodulator
 Commutation available
 - Commutating switch
- Digital signal switching/multiplexing
- CMOS logic implementation
- Analog-to-digital/digital-to-analog conversion
- Digital control of frequency, impedance, phase, and analog-signal gain

Schematic and Connection Diagrams





Order Number CD4016B*

*Please look into Section 8, Appendix D for availability of various package types.

See the CMOS Logic Databook for Complete Specifications