

SMP-08

EIGHT-CHANNEL MULTIPLEXED SAMPLE-AND-HOLD AMPLIFIER

Precision Monolithics Inc.

ADVANCE PRODUCT INFORMATION

FEATURES

- Enhances System Integration
- Fast Acquisition Time ($1\mu\text{s}$)
- Break-Before-Make Switching
- TTL and CMOS Compatible Control Inputs
- No External Hold Capacitors Required
- 5V to 18V Total Supply Operation
- Low Cost

APPLICATIONS

- Multiplexing Single D/A Output to Eight Output Channels
- Control Voltages for Memory Programmers
- Voltage Adjustment for Disk Drive Heads
- Timing Diskew for High-Speed Pin Drivers
- Audio Mix Console VCA Fader Automation
- Programming Voltage-Controlled Filters
- General 1:8 Analog Multiplexing

ORDERING INFORMATION

PLASTIC 16-PIN	SO 16-PIN	OPERATING TEMPERATURE RANGE
SMP08P	SMP08S	XIND*

*XIND = -40°C to $+85^{\circ}\text{C}$

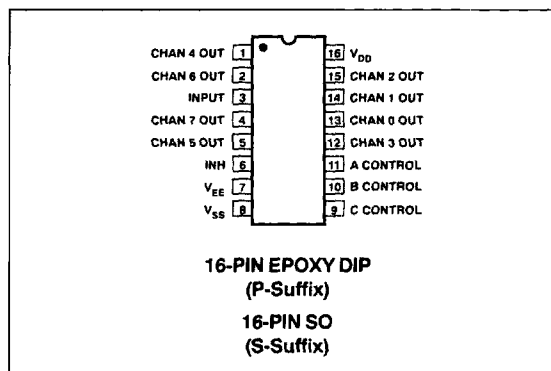
GENERAL DESCRIPTION

The SMP-08 represents the next generation eight-channel CMOS sample/hold circuit designed specifically for increasing system integration and lowering cost in microprocessor-controlled systems. The SMP-08 provides multiplexing capability

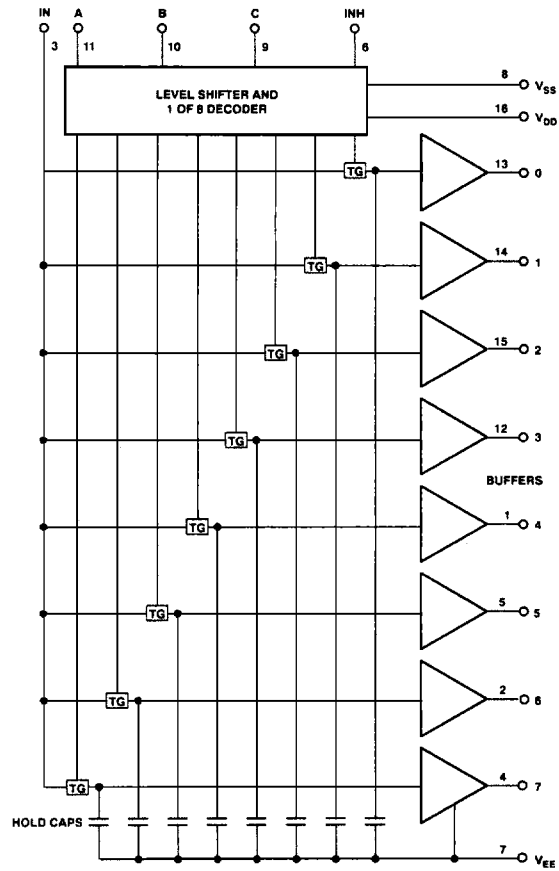
to one voltage source, such as a D/A, to eight independent outputs. Acquisition to an 8-bit level is less than $1\mu\text{s}$. Incorporating the SMP-08 into new designs is facilitated by break-before-make switching and total TTL and CMOS interfacing compatibility. These features of the device serve to eliminate any external control logic required. Additionally, the SMP-08 operates with single or dual supplies that can vary from 5 to 18 volts. The output swing extends down to the negative supply potential.

Traditionally, the function of the SMP-08 was performed by a CMOS multiplexer, the 4051, along with numerous external components. Since the SMP-08 pinout is compatible with the 4051, upgrades in established designs are easily accomplished with the SMP-08.

PIN CONNECTION



BLOCK DIAGRAM



SAMPLE-AND-HOLD AMPLIFIERS/SPECIAL FUNCTIONS