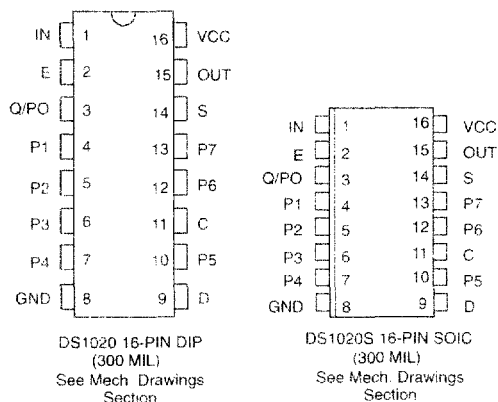


FEATURES

- All-silicon time delay
- Models with 0.15 ns, 0.25 ns, 0.5 ns, 1 ns, and 2 ns steps
- Programmable using 3-wire serial port or 8-bit parallel port
- Leading and trailing edge accuracy
- Standard 16-pin DIP or 16-pin SOIC
- Economical
- Auto-insertable, low profile
- Low-power CMOS
- TTL/CMOS-compatible
- Vapor phase, IR and wave solderable

PIN ASSIGNMENT



PIN DESCRIPTION

IN	- Delay Input
P0-P7	- Parallel Program Pins
GND	- Ground
OUT	- Delay Output
VCC	- +5 Volts
S	- Mode Select
E	- Enable
C	- Serial Port Clock
Q	- Serial Data Output
D	- Serial Data Input

DESCRIPTION

The DS1020 Programmable 8-Bit Silicon Delay Line consists of an 8-bit, user-programmable CMOS silicon integrated circuit. Delay values, programmed using either the 3-wire serial port or the 8-bit parallel port, can be varied over 256 equal steps. The fastest model (-15) offers a maximum delay of 48.25 ns with an incremental delay of 0.15 ns, while the slowest model (-200) has a maximum delay of 520 ns with an incremental delay of 2 ns. All models have an inherent (step zero) delay of 10 ns. After the user-determined delay, the input logic

state is reproduced at the output without inversion. The DS1020 is TTL- and CMOS-compatible, capable of driving 10 74LS-type loads, and features both rising and falling edge accuracy.

The all-CMOS DS1020 integrated circuit has been designed as a reliable, economic alternative to hybrid programmable delay lines. It is offered in a standard 16-pin auto-insertable DIP and a space-saving surface mount 16-pin SOIC.