

# 19-Pin SIP 16-Tap High Performance Passive Delay Modules

- Fast Rise Time, Low DCR
- High Bandwidth  $\approx 0.35 / t_r$
- Low Distortion LC Network
- 16 or 20 Equal Delay Taps
- Standard Impedances: 50 - 75 - 100 - 200  $\Omega$
- Stable Delay vs. Temperature: 100 ppm/°C
- Operating Temperature Range -55°C to +125°C

## OPERATING SPECIFICATIONS - Passive Delays

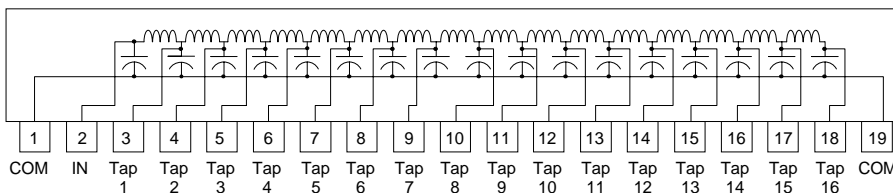
|                                   |                             |
|-----------------------------------|-----------------------------|
| Pulse Overshoot (Pos) .....       | 5% to 10%, typical          |
| Pulse Distortion (S) .....        | 3% typical                  |
| Working Voltage .....             | 25 VDC maximum              |
| Dielectric Strength .....         | 100VDC minimum              |
| Insulation Resistance .....       | 1,000 Megohms min. @ 100VDC |
| Temperature Coefficient .....     | 100 ppm/°C, typical         |
| Band Width ( $f_c$ ) .....        | .35/tr approx.              |
| Operating Temperature Range ..... | -55° to +125°C              |
| Storage Temperature Range .....   | -65° to +150°C              |

### Electrical Specifications <sup>1, 2, 3</sup> at 25°C

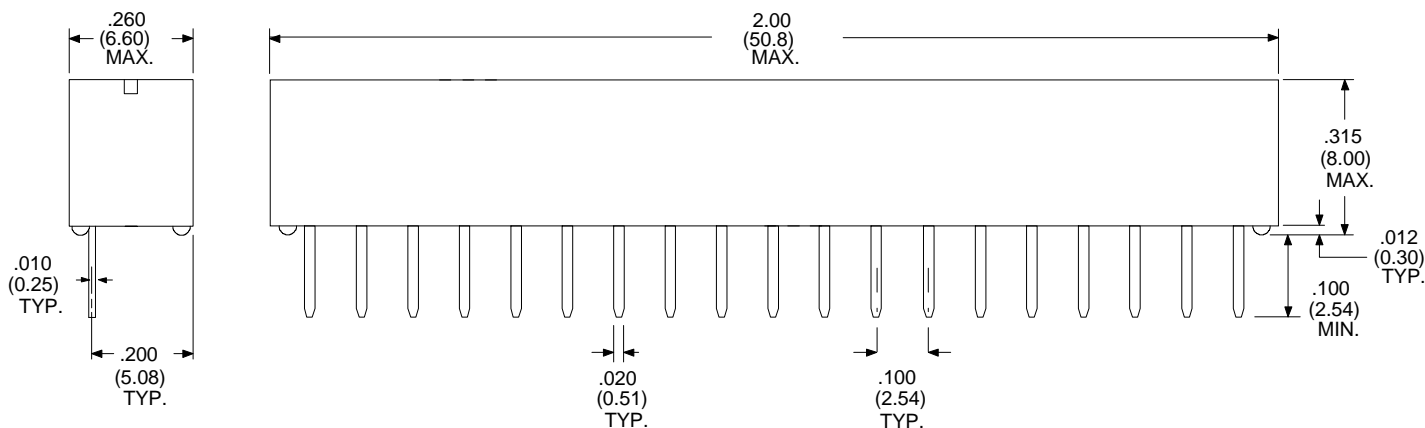
| Total (ns) | Tap-to-Tap (ns) | 50 Ohm Part Number | Rise Time (ns) | DCR max. (Ohms) | 75 Ohm Part Number | Rise Time (ns) | DCR max. (Ohms) | 100 Ohm Part Number | Rise Time (ns) | DCR max. (Ohms) | 200 Ohm Part Number | Rise Time (ns) | DCR max. (Ohms) |
|------------|-----------------|--------------------|----------------|-----------------|--------------------|----------------|-----------------|---------------------|----------------|-----------------|---------------------|----------------|-----------------|
| 8 ± 0.5    | 0.5 ± 0.2       | SIP16-85           | 2.1            | 0.8             | SIP16-87           | 2.2            | 0.8             | SIP16-81            | 2.2            | 1.0             | SIP16-82            | 2.9            | 1.2             |
| 12 ± 1.0   | 0.75 ± 0.3      | SIP16-125          | 2.5            | 1.0             | SIP16-127          | 2.5            | 1.1             | SIP16-121           | 2.7            | 1.1             | SIP16-122           | 3.4            | 1.4             |
| 16 ± 1.0   | 1.0 ± 0.4       | SIP16-165          | 3.7            | 1.0             | SIP16-167          | 3.7            | 1.1             | SIP16-161           | 3.8            | 1.2             | SIP16-162           | 5.3            | 1.9             |
| 20 ± 1.0   | 1.25 ± 0.5      | SIP16-205          | 3.9            | 1.2             | SIP16-207          | 3.9            | 1.3             | SIP16-201           | 3.9            | 1.4             | SIP16-202           | 7.8            | 2.3             |
| 24 ± 1.2   | 1.5 ± 0.5       | SIP16-245          | 4.4            | 1.3             | SIP16-247          | 4.4            | 1.5             | SIP16-241           | 4.4            | 1.6             | SIP16-242           | 8.6            | 2.7             |
| 32 ± 1.6   | 2.0 ± 0.5       | SIP16-325          | 4.9            | 1.4             | SIP16-327          | 4.9            | 1.6             | SIP16-321           | 4.9            | 1.8             | SIP16-322           | 9.8            | 3.3             |
| 40 ± 2.0   | 2.5 ± 0.5       | SIP16-405          | 5.8            | 1.5             | SIP16-407          | 5.9            | 1.9             | SIP16-401           | 5.9            | 2.1             | SIP16-402           | 11.0           | 3.9             |
| 48 ± 2.0   | 3.0 ± 0.5       | SIP16-485          | 7.1            | 1.6             | SIP16-487          | 7.1            | 2.1             | SIP16-481           | 7.1            | 2.7             | SIP16-482           | 11.5           | 4.5             |
| 56 ± 2.8   | 3.5 ± 1.0       | SIP16-565          | 8.2            | 1.7             | SIP16-567          | 8.2            | 2.3             | SIP16-561           | 8.2            | 2.9             | SIP16-562           | 12.2           | 4.7             |
| 64 ± 3.2   | 4.0 ± 1.0       | SIP16-645          | 9.4            | 1.8             | SIP16-647          | 9.4            | 2.5             | SIP16-641           | 9.4            | 3.0             | SIP16-642           | 14.6           | 5.1             |
| 80 ± 4.0   | 5.0 ± 1.0       | SIP16-805          | 11.6           | 2.8             | SIP16-807          | 11.8           | 2.8             | SIP16-801           | 11.8           | 3.2             | SIP16-802           | 17.3           | 5.4             |
| 128 ± 6.4  | 8.0 ± 2.0       | SIP16-1285         | 18.2           | 3.0             | SIP16-1287         | 18.5           | 3.0             | SIP16-1281          | 18.5           | 3.4             | SIP16-1282          | 23.2           | 5.8             |

1. Rise Times are measured from 10% to 90% points.
2. Delay Times measured at 50% points of leading edge.
3. Output (100% Tap) terminated to ground through  $R_L = Z_0$

### SIP16 Style 16-Tap Schematic



### Dimensions in Inches (mm)



Specifications subject to change without notice.

For other values & Custom Designs, contact factory.

SIP16 1/98