High-Speed RISC Delay Modules

<table>
<thead>
<tr>
<th>TEC3816</th>
<th>TEC3820</th>
<th>TEC3825</th>
<th>TEC3833</th>
<th>TEC3840</th>
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<tbody>
<tr>
<td>Tap Delay (ns)</td>
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<tr>
<td>T₀₀ = REF.</td>
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<tr>
<td>T₀₁ = 6.0 ± 45</td>
<td>T₀₁ = 6.0 ± 45</td>
<td>T₀₂ = 6.0 ± 45</td>
<td>T₀₃ = 4.5 ± 35</td>
<td>T₀₄ = 3.5 ± 25</td>
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<tr>
<td>T₀₂ = 16.0 ± 70</td>
<td>T₀₂ = 14.0 ± 60</td>
<td>T₀₂ = 12.0 ± 60</td>
<td>T₀₂ = 9.0 ± 35</td>
<td>T₀₂ = 7.0 ± 25</td>
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<tr>
<td>Fₐ₈ = 32.0 MHz</td>
<td>Fₐ₈ = 40.0 MHz</td>
<td>Fₐ₈ = 50.0 MHz</td>
<td>Fₐ₈ = 66.67 MHz</td>
<td>Fₐ₈ = 80.0 MHz</td>
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</table>

Tap delays are referenced to T₀₀. T₀₀ = 7 ns typical.
T₀₀ measured at 1.5V level of positive edge with 25 pf (typ.) loading per tap.
Test conditions: Tₑ = 25°C; Vₑₑ₈ = 5.0 ± 0.1V.
Temperature coefficient of delay = 800 ppm/°C, -40°C to 85°C.
Delay changes < 0.10 ns or 2% (whichever is greater) for a 5% increase or decrease in supply voltage.

RISC Delay Module

- For R3000 cache memory timing applications.
- Five input frequencies from 32 to 80 MHz available.
- Advanced CMOS, FAST, or Schottky TTL compatible inputs.
- Precise tap to tap delays.
- R3000 compatible outputs:
  - Vₑₑ₈ = 3.0V min., Vₑₑ₈ = .4V max.
  - Rise time = 2.5 ns max.
- 16-pin DIP transfer molded package.
- Custom designs available upon request.
- Military models with temperature range -55 to +125°C and ceramic package IC. Add suffix “M” to part number.
- Military models as above, but with ceramic package IC screened to Mil-Std 883C. Add suffix “MX” to part number.
- Military models as “MX” above, but with in-house burn-in and thermal shock, add suffix “MY”.

Other RISC products:

RISC Clock Oscillator Module
- Combines clock oscillator and delay line functions in one package.
- Need only supply Vₑₑ₈ to generate four-phase clock edges.
- Outputs similar to those of RISC delay module.
- Five frequency options available.

RISC Frequency Doubler Module
- Doubles input frequency.
- Connecting to SYCLK output of microprocessor allows timing and gating functions at 2X system clock frequency.
- Five frequency options available.

NOTE: Contact factory for additional information about Technitrol RISC products.

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