



### Description

Everybody knows how unstable the clock that came with your PC can be. In just a short period of time, that clock can be as much as a half hour off. Many control, network, and test & measurement applications require a more stable clock, but do not need synchronization to WWV or GPS. The NTR Series fills that need.

The Model NTR2100-P is a PCI based Network Time Reference card that provides an accurate and stable clock for your PC. The NTR1000-P and NTR2000-P are ISA versions of the card. The NTR2100-P provides a stability of  $\pm 5$  second per month and the NTR2000-P provides a stability of  $\pm 1$  second per month. The NTR1000-P provides a stability of  $\pm 10$  seconds a month. All three cards provide full battery back-up to maintain continuous accurate time when the PC is shut off or during sudden loss of power. (The NTR2000-P and NTR2100-P drop to  $\pm 10$  seconds per month when on battery power).

The precision and stability are provided by a design based on the National Semiconductor Timer Clock Peripheral (TCP), DP8570A, coupled with a very stable TCXO. The oscillator is adjusted under normal PC operating temperatures to provide a precise and accurate reference.

### Features

- Stability of  $\pm 1$  to  $\pm 10$  seconds a month means no more reliance on the grossly unstable Dos clock
- PCI & ISA versions available, providing a choice of architectures to meet your system requirements
- Auto-Update of DOS Clock from 1 minute to over 40 days, allows flexible setting to satisfy your application needs
- Supports Windows 95/98/NT

### Support

- Superior pre-sales and post-sales technical support
- All products carry a two year warranty

### Specifications

#### Stability

- NTR2000-P  
 $\pm 1$  second per month
- NTR2100-P  
 $\pm 5$  second per month
- NTR1000-P  
 $\pm 10$  second per month

Note: The NTR2100-P and NTR2000-P require the board to be powered to maintain  $\pm 1$  second and  $\pm 5$  second stability. Under battery power, the boards revert to  $\pm 10$  seconds per month.

#### TCXO Stability

<1ppm

#### Aging Rate

3ppm

#### Operating Temperature

0 ° to 50 °C

#### Storage Temperature

-10 ° to 70 °C

#### Interrupt Levels

(NTR1000-P & NTR2000-P only)  
Extended AT Interrupts

#### Agency Approvals

CE Conformance with:  
EU EMC Directive 89/336/EEC  
Eu Low Voltage Directive 72/23/EEC

### Ordering Guide

#### NTR1000-P

ISA  $\pm 10$  sec. version, software, manual

#### NTR2000-P

Precision ISA  $\pm 1$  sec. version, software, manual

#### NTR2100-P

PCI  $\pm 5$  sec. version, software, manual

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