# Odin TeleSystems Inc.

*Open Telecom for Open Minds*

# Thor-2-PCI and Thor-8-PCI

The Odin Telecom Frameworks (OTX) family of industry award-winning products represents outstanding cost/performance value for today's service providers and telecom equipment manufacturers. At the heart of this product line are the Thor-2-PCI and Thor-8-PCI computer telephony adapters.

Whether you need reliable testing and measurement capabilities or superior passive monitoring, the Thor PCI series delivers exceptional results. With its half-size footprint, the Thor-2 PCI is *the* choice where space is at a premium. And the Thor-8 provides the highest integration solution where high port density of T1/E1/J1 interfaces is required.

Where adding DSP resources and keeping PCI slots free is critical, Thor-2 and Thor-8 allow for connectivity to daughter-boards. And both Thor-2 and Thor-8 provide software-switchable features that result in highly configurable systems, ones recognized for their convenience and flexibility.

Both versions of Thor offer the maximum levels of frequency stability through their optional on-board stratum oscillators – the levels you expect in the most demanding applications and testing environments.

So for the best in CTI and Internet telephony applications, the Thor PCI series — with its multiple DSP and HDLC resources — delivers economy, value, and performance.



*Thor-2-PCI and Thor-8-PCI Adapters for Data and Voice Communications*

## Feature Highlights

- 2 T1/E1/J1 interfaces (Thor-2-PCI); 8 T1/E1/J1 interfaces (Thor-2-PCI). Software switchable between T1, E1, and J1.

- PCI host bus interface

- H.100 Computer Telephony bus interface.

- Odin ASM daughterboard socket. Can be used with the following:

  ⇒ Vidar-5x4-ASM: 4 x TI TMS320C548/549 DSP with 80 MIPS each.

  ⇒ Vidar-55x4-ASM: TI TMS320VC5510 DSP with 1600 MIPS.

## Software Support

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| *Includes the OTX software driver, the OTX and DSP software development kits (SDKs), as well as a variety of host and DSP demo applications* | The OTX driver is available for Windows 98, Windows NT 4.0, Windows 2000, Windows XP, and Linux operating systems. Customized DSP applications can be developed using ANSI C and C++ language and standard third-party development tools. |

## Technical Specifications

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| *Board Specification* | • Thor-2-PCI:  Half-size PCI board<br>• Thor-8-PCI:  Full-size PCI board |
| *Host Bus Interface* | • PCI Rev. 2.1 electrical interface |
| *Network Interfaces* | • Thor-2-PCI:  2 T1/J1 or E1 interfaces (SW switchable); high-z line termination<br>• Thor-8-PCI:  8 T1/J1 or E1 interfaces (SW switchable)<br>• Both:  75 Ohm, 100/120 Ohm |
| *H.100 Interface* | • 32 x 2, 4, or 8 Mbit/s board-to-board highways<br>• 256 simplex channels switchable between adapters<br>• 1024 channels switchable locally |
| *DSP Resources (with optional ASM daughterboard)* | • Vidar-55x4-ASM: 4 x TI TMS320VC5510 (400 MIPS) with 16MB SDRAM each<br>• Vidar-5x4-ASM: 4 x TI TMS320C548/549 (80 MIPS) with up to 512KB SRAM each |
| *HDLC Resources* | • Support for 1 (Thor-2-PCI) and 3 (Thor-8-PCI) HDLC channel(s) per access port<br>• ASM modules offer additional HDLC channels with support for super- and sub-channels |
| *T1/E1/J1 Frame Formats* | • Doubleframe, CRC Multiframe (E1 mode)<br>• F4, SF (or D4), ESF (or F24), SLC96 (T1/J1 mode) |
| *T1/E1/J1 Line Codes* | • HDB3, B8ZS, AMI, AMI with ZCS |
| *T1/E1/J1 Signaling Types* | • Channel associated (robbed bit) |
| *Clocking Sources* | • On-board oscillator (high-stability oven-controlled oscillator option available)<br>• Incoming T1/E1/J1<br>• H.100 Clock<br>• External clock |
| *Connector* | • 50-pin Centronix, 3-foot cable to harmonica with RJ45/RJ48C connectors for E1/T1/J1, and |
| *Testing Features* | • Full access to F, Y, $S_i$, and $S_a$ bits in E1 mode<br>• Full access to FS/DL-bits in T1 mode (including support for the DL-channel protocol according to T1.403-1989 ANSI or to AT&T TR54016 specification), and programmable line build-out in T1/J1 mode<br>• Transparent mode and programmable transmit pulse shape and input threshold<br>• Alarm insertion and detection<br>• Loop codes, channel loopback and PRBS |
| *Phone Features* | • 4 analog interfaces (Codecs) for handset connections |
| *Power Requirements/Environmental Data* | • Power consumption:  4.6W for Thor-2-PCI; 7.4W for Thor-8-PCI<br>• Temperature:  <u>operating</u>, $0^o$ C to $+50^o$ C; <u>non-operating</u>, $-40^o$ C to $+60^o$ C<br>• Humidity:  <u>operating</u>, 5% to 80% RH (%relative humidity) at up to $+30^o$ C, and 5% to 30% RH above $+30^o$ C up to $+50^o$ C non-condensing; <u>non-operating</u>, 5% to 80% RH at up to $+30^o$ C, and 5% to 30% RH above $+30^o$ C up to $+50^o$ C non-condensing<br>• Altitude:  <u>operating</u>, up to 4,600 meters (15,333 feet); <u>non-operating</u>, up to 12,192 meters (50,000 feet) |

## Ordering Information

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| *Product Name/Product Category* | Thor-2-PCI/HAA-1022-1-1.0<br>Thor-8-PCI/HAA-1019-1-1.0 |

## Contact Information

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| *For more information on the Thor-2-PCI and Thor-8-PCI products, please contact:* | Odin TeleSystems Inc.<br>800 E. Campbell Road, Suite 334<br>Richardson, TX 75081-1873<br>USA | Tel: +1-972-664-0100<br>Tel: 1-888-ODINTSM<br>Fax: +1-972-664-0855<br>Email:  info@odinTS.com<br>Web:  www.odinTS.com |