



# Odin TeleSystems Inc.

*Open Telecom for  
Open Minds*

The Thor-2-PCI-Plus and Thor-8-PCI-Plus computer telephony adapters are members of the Odin Telecom Frameworks Plus (OTX-Plus) product family. OTX-Plus is an enhanced version of the industry award-winning OTX platform with products that represents outstanding cost/performance value for today's service providers and telecom equipment manufacturers.

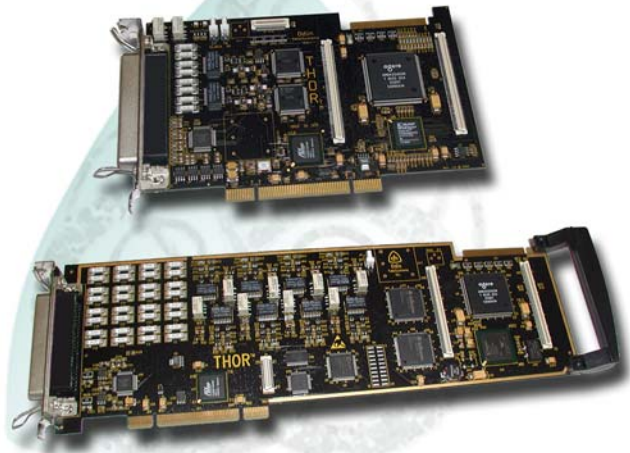
Whether you need reliable testing and measurement capabilities or superior passive monitoring, the Thor PCI series delivers exceptional results. With its half-size footprint, the Thor-2 PCI-Plus is the choice where space is at a premium. And the Thor-8-PCI-Plus provides the highest integration solution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

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

Both versions of the Thor PCI Plus boards 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 Plus series delivers economy, value, and performance.

## *Thor-2-PCI-Plus Thor-8-PCI-Plus*



*Thor-2-PCI-Plus and Thor-8-PCI-Plus Adapters for demanding Data and Voice communication applications*

### **Feature Highlights**

- 8 T1/E1/J1 interfaces (Thor-8-PCI-PLUS). Software switchable between T1, E1, and J1.
- PCI host bus interface, master capable.
- H.100 Computer Telephony bus interface.
- 32-bit data DMA burst feature significantly reduces host CPU load.
- Voltage and Frequency measurements of the T1/E1/J1 span.
- Signal amplifiers for attenuated T1/E1/J1 monitor conditions.
- Odin ASM daughterboard socket. Can be used with the following:
  - ⇒ Vidar-5x4-ASM-PRO: 4 x TI TMS320C5416 DSP with 160 MIPS each.
  - ⇒ Vidar-5x4-ASM-CST: 4 x TI TMS320C54CST DSP with 120 MIPS each.
  - ⇒ Vidar-5x4-ASM-EX: 4 x TI TMS320C5410A DSP with 160 MIPS each.
  - ⇒ Vidar-55x4-ASM: 4 x TI TMS320VC5510 DSP with 400 MIPS each.

## Thor-2-PCI-Plus and Thor-8-PCI-Plus Product Brief

### Software Support

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

<i>Board Specification</i>	<ul style="list-style-type: none"> <li>Thor-2-PCI-Plus: Half-size PCI board</li> <li>Thor-8-PCI-Plus: Full-size PCI board</li> </ul>
<i>Host Bus Interface</i>	<ul style="list-style-type: none"> <li>Supports PCI rev 2.1, rev 2.2, rev 2.3 (3.3volt signaling) and rev 3.0</li> <li>32-bit burst DMA</li> </ul>
<i>Network Interfaces</i>	<ul style="list-style-type: none"> <li>Thor-2-PCI-Plus: 2 T1/J1 or E1 interfaces (software switchable);</li> <li>Thor-8-PCI-Plus: 8 T1/J1 or E1 interfaces (software switchable)</li> <li>Both: 75 Ohm, 100/120 Ohm, high-z termination, monitor amplifier</li> </ul>
<i>H.100 Interface</i>	<ul style="list-style-type: none"> <li>32 x 2, 4, or 8 Mbit/s board-to-board highways</li> <li>256 duplex channels switchable between adapters, 1024 channels switchable locally</li> </ul>
<i>DSP Resources (with optional ASM daughterboard)</i>	<ul style="list-style-type: none"> <li>Vidar-55x4-ASM: 4 x TI TMS320VC5510 (400 MIPS) with 16MB SDRAM each</li> <li>Vidar-5x4-ASM-PRO: 4 x TI TMS320C5416 (160 MIPS) with up to 512KB SRAM each</li> </ul>
<i>HDLC Resources</i>	<ul style="list-style-type: none"> <li>Support for 1 HDLC channel per access port</li> <li>ASM modules offer additional HDLC channels with support for super- and sub-channels</li> </ul>
<i>T1/E1/J1 Frame Formats</i>	<ul style="list-style-type: none"> <li>Doubleframe, CRC Multiframe (E1 mode)</li> <li>F4, SF (or D4), ESF (or F24), SLC96 (T1/J1 mode)</li> </ul>
<i>T1/E1/J1 Line Codes</i>	<ul style="list-style-type: none"> <li>HDB3, B8ZS, AMI, AMI with ZCS</li> </ul>
<i>T1/E1/J1 Signaling Types</i>	<ul style="list-style-type: none"> <li>Channel associated (robbed bit) and Common Channel</li> </ul>
<i>Clocking Sources</i>	<ul style="list-style-type: none"> <li>On-board oscillator (high-stability oven-controlled oscillator option available)</li> <li>Incoming T1/E1/J1</li> <li>H.100 Clock</li> <li>External clock</li> </ul>
<i>Connector</i>	<ul style="list-style-type: none"> <li>50-pin Centronix, 3-foot cable to harmonica with RJ45/RJ48C connectors for E1/T1/J1, and RJ11 connectors for handsets</li> </ul>
<i>Testing Features</i>	<ul style="list-style-type: none"> <li>Full access to F, Y, S<sub>i</sub>, and S<sub>a</sub> bits in E1 mode</li> <li>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&amp;T TR54016 specification), and programmable line build-out in T1/J1 mode</li> <li>Transparent mode and programmable transmit pulse shape and input threshold</li> <li>Alarm insertion and detection, loop codes, channel loopback and PRBS</li> <li>T1/E1 span frequency measurement. T1/E1 signal voltage measurement (Thor-2-PCI-Plus).</li> </ul>
<i>Phone Features</i>	<ul style="list-style-type: none"> <li>4 analog interfaces (Codecs) for speaker, microphone, handset, or modem connections</li> </ul>
<i>Power Requirements/Environmental Data</i>	<ul style="list-style-type: none"> <li>Power consumption: 4.1W (Thor-8-PCI-Plus) 2.2W (Thor-2-PCI-Plus)</li> <li>Temperature: <u>operating</u>, 0° C to +50° C; <u>non-operating</u>, -40° C to +60° C</li> <li>Humidity: <u>operating</u>, 5% to 80% RH (%relative humidity) at up to +30° C, and 5% to 30% RH above +30° C up to +50° C non-condensing; <u>non-operating</u>, 5% to 80% RH at up to +30° C, and 5% to 30% RH above +30° C up to +50° C non-condensing</li> <li>Altitude: <u>operating</u>, up to 4,600 meters (15,333 feet); <u>non-operating</u>, up to 12,192 meters (50,000 feet)</li> </ul>

### Ordering Information

<i>Product Name/Product Category</i>	Thor-2-PCI-Plus/HAA-1048-1-1.0-1 Thor-8-PCI-Plus/HAA-1094-1-1.0-1
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### Contact Information

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