



# Odin TeleSystems Inc.

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Odin TeleSystems' Thor-2-ISA is an intelligent, multi-purpose T1/E1 interface card for ISA-based personal computers.

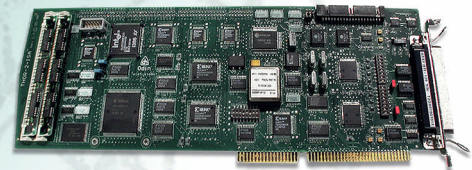
The Thor-2 card provides two T1 or E1 interfaces and supports both digital data and voice communications. The Thor-2 adapter can send and receive data as a constant data stream or as data packets. The packetizing is performed by the on-board HDLC controller. The HDLC controller allows establishment of up to 32 separate channels for packet communications. These channels can be assigned to any physical time slot. Timeslots can also be concatenated into "superchannels" or divided into "sub-channels." The on-board codecs and DTMF transceivers allow implementation of analog signaling on the bearer channels.

Several Thor-2 boards can be connected together within one PC chassis through the Multi-Vendor Integration Protocol (MVIP) interface.

The Thor-2 board is controlled either by the host PC's microprocessor or by the on-board microprocessor. All of the protocol layers (layer 2 and up) are fully controllable by application software.

Applications supported by Thor-2-ISA include signaling simulators (ISDN PRI, Frame Relay, SS#7), protocol analyzers, switching systems, computer telephony integration, customer premises equipment/network, access devices, routers, bridges, gateways, and call centers.

## *Thor-2-ISA*



*Thor-2-ISA Adapter Card*

### **Feature Highlights**

- Supports both T1 and E1.
- Provides 32 HDLC channels.
- Can be used as an active or passive board.
- Utilizes standard DRAM Single In-Line Memory Module (SIMMs) for memory. The board can be equipped with 1, 2, or 8 MBytes of memory.
- Contains 512 KBytes of flash memory for persistent storage.
- Contains 2 Codecs supporting both A-law and  $\mu$ -law.
- Provides 2 handset connectors for phone applications.
- Contains 2 DTMF Transceivers for analog signaling and tone generation/detection.
- Provides 2 serial (COM) ports for the on-board processor. The onboard processor console can be redirected to a COM-port for remote control.
- Supports easy porting of code from an Intel host processor to the Intel 386EX on-board processor. Software development using standard third-party development tools.
- The on-board processor runs standard

## Thor-2-ISA Product Brief

### Software Support

The host driver is available for Windows 95, Windows 98, Windows NT, and MSDOS. The on-board processor driver is available for ROM-DOS.

Thor-2 is delivered with a software driver and an Application Programming Interface (API). The same API is available for both the host PC and the on-board processor: Applications can be moved directly (without any changes to the source code) from the host to the on-board processor.

### Technical Specifications

<i>Board</i>	<ul style="list-style-type: none"> <li>• Full-length IBM compatible PC extension board</li> </ul>
<i>Bus Interface</i>	<ul style="list-style-type: none"> <li>• Industry Standard Architecture (ISA)</li> <li>• Selectable I/O address: 0000h-03FFh</li> <li>• Software Selectable IRQ: 3-15</li> <li>• SW configurable memory address</li> </ul>
<i>Network Interfaces</i>	<ul style="list-style-type: none"> <li>• Software configurable T1 or E1 (ANSI T1.408, ITU-T G.703)</li> </ul>
<i>MVIP Interface</i>	<ul style="list-style-type: none"> <li>• 8 x 2,048 Mbps streams</li> <li>• 256 x 64 Kbps channels</li> </ul>
<i>HDLC</i>	<ul style="list-style-type: none"> <li>• 32 independent HDLC channels, support for H0, H11, H12 channels, Super- and Sub-channels</li> </ul>
<i>Processor</i>	<ul style="list-style-type: none"> <li>• Intel 386EX 16Mhz</li> <li>• ROM-DOS Operating System</li> </ul>
<i>Memory</i>	<ul style="list-style-type: none"> <li>• Standard 30-pin DRAM SIMMs</li> <li>• 2 MBytes DRAM standard (upgradeable to 8 MBytes)</li> <li>• 512 KBytes Flash memory</li> </ul>
<i>Switching Matrix</i>	<ul style="list-style-type: none"> <li>• 384x384 Byte Time-Space Switch</li> </ul>
<i>Frame Formats</i>	<ul style="list-style-type: none"> <li>• Doubleframe, CRC Multiframe, 4-Frame Multiframe, 12-Frame Multiframe, Super Frame (SF), Extended Super Frame (ESF)</li> </ul>
<i>Line Codes</i>	<ul style="list-style-type: none"> <li>• HDB3; B8ZS; AMI, AMI with ZCS</li> </ul>
<i>Signaling Types</i>	<ul style="list-style-type: none"> <li>• Channel Associated (robbed bit); Common Channel</li> </ul>
<i>Error Checking</i>	<ul style="list-style-type: none"> <li>• CRC generation and checking</li> </ul>
<i>Testing Features</i>	<ul style="list-style-type: none"> <li>• Full access to F, Si, and Sa bits on E1; Alarm and facility signaling access; Channel Loopback</li> </ul>
<i>Clocking sources</i>	<ul style="list-style-type: none"> <li>• On-board oscillator</li> <li>• Incoming T1/E1</li> <li>• MVIP master or secondary clock signal</li> <li>• External clock</li> </ul>
<i>Phone Features</i>	<ul style="list-style-type: none"> <li>• 2 Codecs, both A- and <math>\mu</math>-law supported;</li> <li>• 2 DTMF transceivers (tone sending and detection)</li> </ul>

### Ordering Information

<i>Product Name/Product Category</i>	Thor-2-ISA/HAA-1004-1-1.3
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### Contact Information

<i>For more information on the Thor-2-ISA please contact:</i>	<p>Odin TeleSystems Inc. 800 E. Campbell Road, Suite 334 Richardson, TX 75081-1873 USA</p>	<p>Tel: +1-972-664-0100 Tel: 1-888-ODINTSM Fax: +1-972-664-0855 Email: <a href="mailto:info@odinTS.com">info@odinTS.com</a> Web: <a href="http://www.odinTS.com">www.odinTS.com</a></p>
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