The 5575 provides high-performance, full duplex ATM connectivity to meet the needs of demanding server applications. Offering the proven Interphase (i)chip+™ technology along with hardware support for advanced traffic management capabilities, the 5575 is ideal for broadband Internet connectivity. The 5575 provides support for multiprotocols via RFC 1483 (Multiprotocol Encapsulation), RFC 1577 (Classical IP), and ATM Forum LAN Emulation, with support for Multiprotocol Over ATM (MPOA), and RFC 2225. This allows users to migrate existing networks to ATM using standard protocols over switched virtual circuits. The 5575 offers the highest performance and best overall value in the industry, making it the choice for the most demanding broadband applications.
Interphase *chip*+ ATM SAR Technology

The *chip*+ is a high performance ATM ASIC that provides all of the required functionality, from PCI bus interface to Utopia interface, to segment packets from system memory and to reassemble packets into system memory. The *chip*+ Segmentation and Reassembly can be user-defined as on-board and off-board, and the SAR is supported using the ATM Adaptation Layer 5 or a Null Adaptation Layer. At the ATM layer, the *chip*+ provides for either CBR, ABR, or UBR service.

Other attractive features of the *chip*+ technology are its ability to implement the ATM Traffic Management 4.0 ABR service in hardware and its natural tendency to limit the number of interrupts when the system gets behind and cannot process received packets quickly enough. The system can then process several packets under a single interrupt allowing more efficient use of system resources when heavily loaded. Additionally, its Packet/Cell Buffer provides intermediate data storage capability for both transmit and receive data to allow for efficient, large PCI bus bursts (up to 128 bytes) to move the transmit packet.

To assist in the writing of the application-specific device drivers, a Software Development Kit (SDK) is available for the *chip*+ which includes an *chip*+ hardware guide, *chip*+ porting guide, and sample device drivers.

Fast and Efficient Data Transport

- 128 Byte bursts across the PCI bus

Support for Multiple Protocols

TCP/IP, IPX, Appletalk, and NetBIOS via:
- RFC 1483 (Multiprotocol Encapsulation)
- RFC 1577 (Classical IP)
- ATM Forum LAN Emulation (Version 1 and 2) with support for MPOA and RFC 2225

Extensive ATM Features

- Up to 16 ELANS
- Up to 4 K user configuration Virtual Channels (VCs)
- ATM Forum UNI 3.0, 3.1, 4.0
- ATM Forum Traffic Management 4.0 Specification
- On-board/off-board reassembly of packets
- Hardware-based ABR is a thousand times faster than software-based ABR alternatives
- Interphase cell scheduling algorithm offers granularity on a per-VC basis, thus further optimizing network performance under congested conditions
- Media support for multimode fiber and category 5 UTP copper wire
- SNMP agent
- Redundant Link support
- ILMI Network Management
- MPOA
- AAL0 and AAL5 adaptation layer support
- RFC 2225
- Support for four adapters per machine

Simplest Set-Up and Administration

With CellView, a powerful user installation and diagnostic utility, the 5575 features simplified set-up and configuration. CellView allows a system administrator to quickly configure Interphase ATM adapters and collect statistical information through an intuitive graphical user interface. Among its features, CellView displays all Interphase ATM boards installed in a system including hardware version level, CellView facilitates configuration of signaling parameters, LAN Emulation Client (LEC) interfaces, the LAN Emulation Server (LES) interface, LAN Emulation Configuration Server (LECS) interfaces, and emulated LAN mapping information. Further, CellView provides information on SONET, signaling, and cell level statics, AAL5 statics, LEC membership and statics, and LEC/LECS statistics.
5575 PCI 155Mbps ATM Communications Controller

Board Development Kit

The 5575 BDK is specific to the 5575 hardware, but it is not tied to a particular operating system environment.

The kit contains the following main components:

• **Board Development Guide** - provides valuable information and software implementation directives, as well as source examples

• **Setup Utility** - allows the user to modify the content of the various programmable elements of the board, especially the FLASH EEPROM memory

• **Interactive Built-In Test Utility** - allows management of the card such as reset/run action, memory and register dump, memory and DMA tests, line parameter manipulation, and more.

Interphase Customer Service and Support

All Interphase products are backed by support programs designed to deliver maximized uptime for our customers worldwide. Included are standard and extended product warranty packages, standard and enhanced “7x24” human technical assistance, and free Web-based on-line support for the life of the product, including technical notes, downloadable driver enhancements, and information on new product releases. Interphase customer support ensures investment protection for your networking, remote access and mass storage connectivity.

Agency Certifications

**Emmissions/Immunities**

• FCC, Part 15, Class A

• ICES-003, Class A

• EN 55022; CISPR 22, Class A

• EN 55024; CISPR 24

• VCCI, Class A

**Markings**

• CE Mark

**Specifications**

**Architecture**

- Bus Type: Single Slot PCI Bus (PCI 2.1 Compliant)
- Data Transfer: 32 bit
- Bus Access: Zero Wait-state DMA Master
- OpenBoot Interface: IEEE 1275
- Buffer RAM: 128K, 512K, 1MB

**ATM Specifications**

- Signaling: UNI 3.0/3.1
- SVC Encapsulation: LANE, RFC 1577
- PVC Encapsulation: LANE, RFC 1483, LLC/SNAP, NULL
- Adaptation Layers: AAL0 and AAL5
- Network Management: ILMI, SNMP Support Agent

**Mechanical**

- Form Factor: Full size, Short Card
- Length: 167.64 mm (6.6 in)
- Width: 102.36 mm (4.0 in)
- Weight: 112 grams
- Indicators: Board Operational, Link Active

**Operating Environment**

- Power Consumption: 2.0 A@5 V DC
- Temperature: 0 to 55° C
- Relative Humidity: 10% to 95% noncondensing
- Altitude: 0 to 15,000

**Driver Support**

- VxWorks: 5.4
- Linux: 2.4
- Microsoft Windows NT: Versions 3.5, 4.0
- Windows 95, 98: All Versions
- Windows 2000: All Versions
- Novell NetWare: Version 5.x
- OS/2: Versions 2.11 or later
- SCO: Open Server 5.0
- UnixWare: Versions 2.0x, 2.x
- HP-UX: Version 10.2

**Configuration Options**

- 5575-002: SC Duplex Connector, Multimode (62.5/125) fiber media, 1 K VCs
- 5575-006: RJ-45 Connector, 100-Ohm UTP copper media, 1 K VCs
- 5575-007: RJ-45 Connector, 100-Ohm UTP copper media, 4 K VCs
- 5575-009: SC Duplex Connector, Single mode (8.5/125) fiber media, 1 K VCs
- 5575-010: SC Duplex Connector, Single mode (8.5/125) fiber media, 4 K VCs
- 5575-018: SC Duplex Connector, Multimode (62.5/125) fiber media, 4 K VCs

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