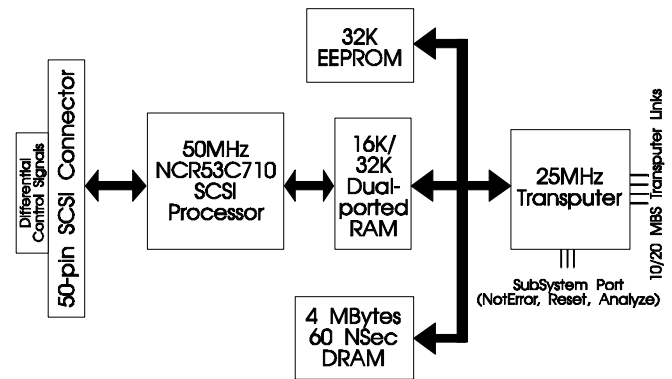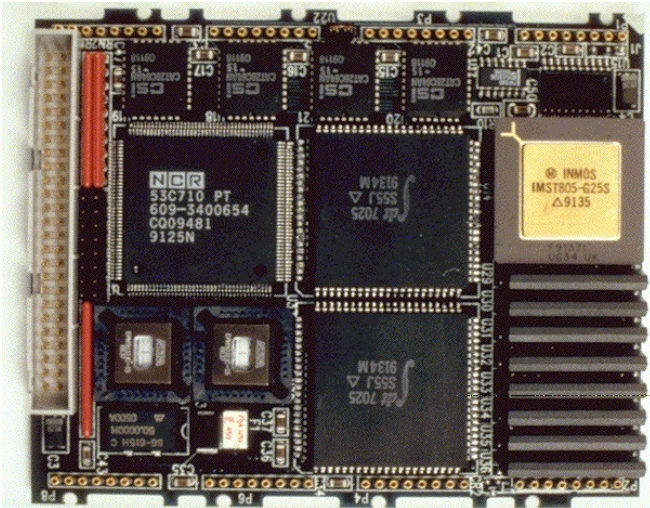# SCSITRAM©
SCSI TRAnsputer Module

Features

* Up to 10 Megabytes/Second (sustained) synchronous transfers across the SCSI bus

* 50 MHz NCR53C710 SCSI-2 (fast SCSI) chip, 16K/32K Dual-Port RAM interface to transputer

* Synchronous or asynchronous, target or initiator, SCRIPTS-based processor

* SCSI bus interface (single ended drivers) with differential driver support; socketed terminators

* 32K of EEPROM, with optional utilities for loading user-supplied code

* 25 MHz IMS-T425 transputer

* 4 Megabytes of Zero Wait State DRAM

* Industry standard, Size-4 TRAM

* Subsystem port

* Optional DOS-5 file system implemented in EEPROM

* Four serial transputer links (Selectable between 10 or 20 Mbits/sec)

* Compatible with Alta and Inmos TRAM boards (such as the SuperLink/XL)

* 1-Year warranty on parts and labor

Description

The SCSITRAM consists of a circuit board with SCSI processor and ribbon cable connector, transputer, memory, boot ROM, and connective hardware. The SCSITRAM may be plugged into a SuperLink/XL TRAM board from Alta Technology or similar boards from Inmos to provide an interface between 4 transputer links and standard SCSI devices or host interfaces.

In the initiator mode, the SCSITRAM may be used to control disks, tapes, and other SCSI devices. The optional MS-DOS 5.0 file system allows file I/O for multiple links, each with multiple files. Total available bandwidth is balanced at 10 MBytes/Second on the SCSI bus (running in the synchronous mode) and all four links running bi-directional transfers, making this device ideal for transaction processing. With the "fast SCSI" mode, this device is also ideal for sustained streaming of data in a data acquisition environment. Four megabytes of DRAM on the TRAM are available for buffering or caching operations.

As a target device, the SCSITRAM may be used to interface transputer networks to hosts with SCSI controllers. Alta offers interface drivers, development systems, and external chassis for Sun SPARCStations, IBM Risc System 6000's, and other UNIX workstations.

The SCSITRAM follows all of the mechanical and electrical standards for Size-4 TRAMs. The SCSITRAM may be combined with other transputer modules on a single SuperLink/XL to create a complex array of processors and peripherals for use in parallel processing algorithms.

SCSITRAM Parallel Applications

The SCSITRAM is the basic unit for mass storage in parallel processing applications. With its high-end performance and selection of peripherals and configurations, the SCSITRAM is a versatile tool for the system designer, the system integrator, or the Value-Added Reseller (VAR). The end-user can connect most SCSI devices such as tape drives and disks with the SCSITRAM for a tailored, economical disc or tape subsystem within an existing transputer system.

Designers can place up to two SCSITRAMs on a single PC/AT motherboard. Each SCSITRAM may be connected to other transputer modules via its four transputer links to form a great variety of topologies.

OEM and Educational Pricing

Alta offers special pricing for Volume End Users (VEU's), OEM's and educational institutions. Please contact your Alta marketing representative for information.

Your Guarantee of Quality

SCSITRAMs are *quality-built* for lasting value. They are manufactured using the most current Surface Mount Technology (SMT) for affixing the board components. The gold-plated connecting pins assure secure contacts and long life of the pins and motherboard sockets. Alta's testing and burn-in procedures include complete functional tests of the SCSITRAM's memory, transputer, and SCSI controller prior to shipment.

Alta warrantees all products to be free from defect for 1 year from date of purchase. Alta will repair or replace any defective product when returned within 1 year of purchase.

Specifications

Processors
SCSI Controller	NCR 53C710
Transputer	IMST425-25
	T805/25 (Optional)

Electrical
Operating Voltage	5+/-0.25V
Operating Current	1.0A
Power Consumption	<5.0W
Max. Ripple/Noise	100mV
Fuse	2.5A/125V

Environmental
Temperature	0 C to 60 C
Relative Humidity	10% to 90%
	non-condensing
Dimensions	Size-4 TRAM
	3.5" x 4.37"

Interface Connectors
SCSI Internal	50-pin dual-row keyed header
Differential control	16-pin double-row .025" square post

Performance
Asynchronous SCSI-1	3 MBytes/Second
Asynchronous SCSI-2	5 MBytes/Second
Synchronous SCSI-2	10 MBytes/Second
Transputer-to-SCSI	15 MBytes/Second

Software Support
Target mode	EEPROM (link protocol)
Initiator, SCSI Common Command Set	EEPROM (link protocol) or Linkable Library
DOS5 file system	EEPROM (link protocol) or Linkable Library