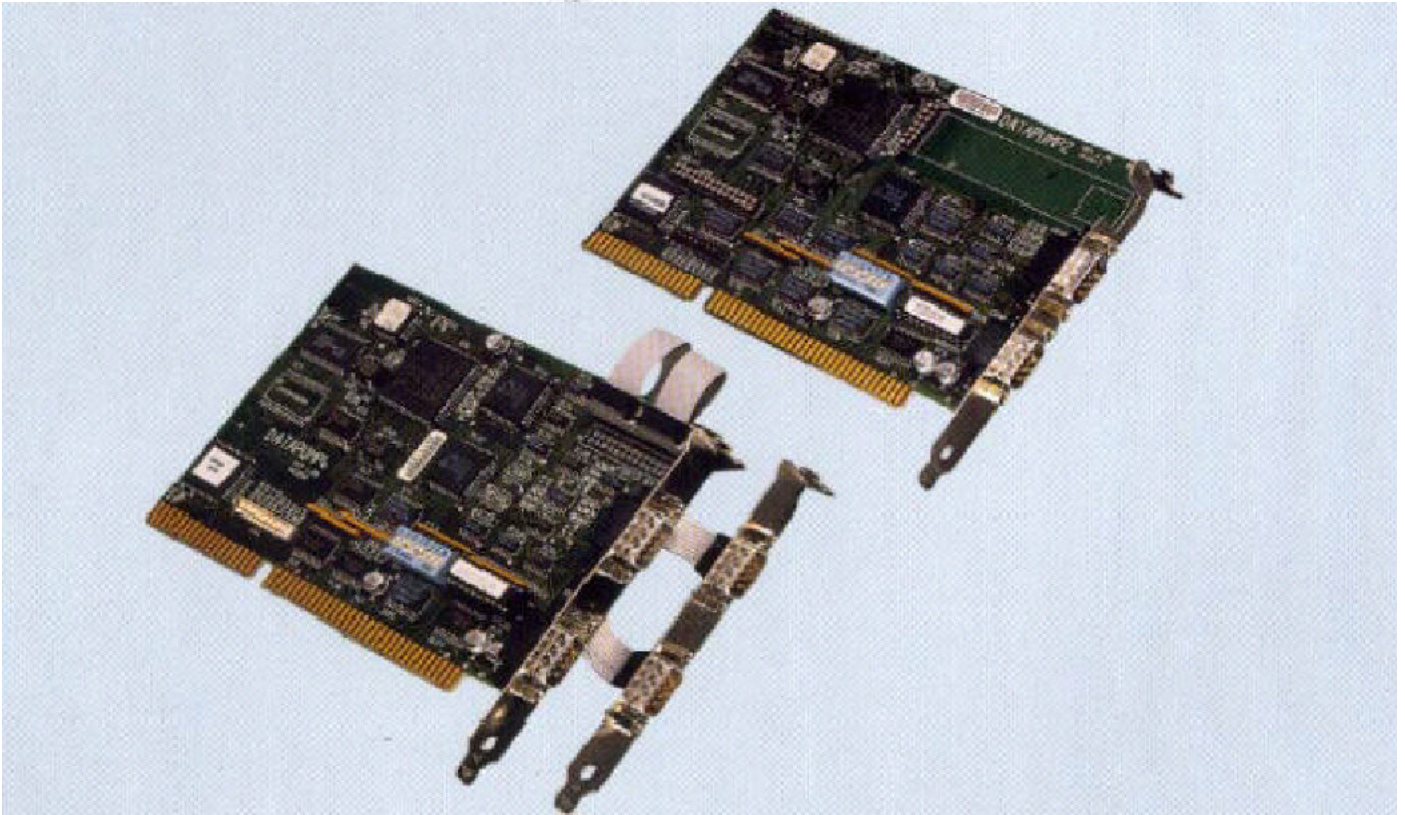


TCL Data PUMP 2 & 4



DataPump2and4port Intelligent Front End Processor (FEP) high speed communication PC cards have been specially designed to provide a solution to the PC's limited communication capabilities.

Demanding Network Server or Multitasking graphical operating systems like WINDOWS and OS/2, or Multiuser/Multitasking operating systems like UNIX, require all the power that a processor can deliver in order to function reliably.

Simultaneous data transmission and reception through the COM1/COM2 ports consumes approximately 70% of PC available processing power due to the numerous communications interrupts generated. This in turn causes the system to be sluggish and unreliable. There is also a high possibility of data loss due to the PC processor missing an interrupt as the PC interrupt lines may have been disabled momentarily by the PC video controller.

DataPump provides the intelligent solution to these problems by effectively taking over the communication tasks from the main PC processor and allowing the PC processor to carry on with running the application.

The DataPump on-board processor with its associated private memory, acts like a co-processor for processing communication data. DataPump is independent of the main PC processor while transmitting and receiving data. The main PC processor is only engaged for a short period of time for exchanging data.

DataPump 2 and 4 do not interfere with the existing COM1/COM2 ports in the PC, but provide additional high speed ports for attachment of high speed peripherals.

Numerous operating systems including DOS, Novell NetWare, UNIX, UnixWare, OS/2 and WINDOWS will benefit from using the DataPump FEP as the main communication sub-system.

As an added advantage, DataPump 4 can be factory configured to provide one Synchronous and three Asynchronous high speed ports. DataPump 2 could be fitted with an on-board V.34 modem (please refer to DataBlast IMP product leaflet).

How Does it Work?

DataPump use the TCL unique 8KB dual-ported 'sliding window' memory mapped technology which has now become a defacto standard.

The base address of the 8KB shared memory between the PC and DataPump Card is switch selectable between 640KB and 1MB of PC memory space and hence does not affect the amount of conventional memory available to run existing or future applications.

The shared 8KB memory is arranged as 4KB fixed and 4KB sliding. By writing to a register the 4KB sliding windows moves along the 128KB or 256KB DataPump memory allowing data to be copied to or read from the card memory.

The advantage of this technique is that a large amount of private memory could be utilised for data buffering without affecting or using the main PC's memory.

TCL device drivers ensure that these features are transparent to the operating system in use. The operating system simply sees a 4KB memory block which it reads data from and writes data to.

Benefits

12-month return-to-base warranty

PAL ID facility (acts as a dongle for protecting your software)

High speed, reliable data transmission and reception

Trouble free - 'fit and forget it'

Places absolute minimum of overhead on the PC's main processor as no PC interrupts or DMA are used by TCL drivers

Proven memory-mapped Front-End Processor technology as used in mainframes

Surge protected signals on all ports - little possibility of damage by attached peripherals

FREE device drivers for the operating system of your choice:

DOS, WINDOWS, WINDOWS NT (NT-RAS), OS/2, Multiuser DOS, Real/32, Novell NetWare (AIO), IBMLAN Distance (ANDIS), NetWare Connect, UnixWare, SCO UNIX, AIX, Solaris-x86, FlexOS.

DATAPUMP SPECIFICATION

Processor Card:	CMOS surface-mount Components on a multi-layer half length card
On Board Processor:	80C188 16Mhz
On-board RAM:	128KB Standard, 256KB option Dual ported 8KB (4+4) memory mapped. Base address of memory switch selectable between 640KB and 1MB
PC Bus:	ISA/EISA
Interrupts:	3, 4, 5, 7, 9, 10, 11, 12, 15 (For special applications)
DMA:	Full duplex on one channel, half duplex on two channels (for special applications)
Connection:	V.24/RS232 9 pin 'D' Male SURGE PROTECTED
Modem Lines:	TX, RX, RTS, CTS, DTR, DSR, DCD, RI
Character:	5,6,7,8 bits
Stop Bits:	1, 1.5, 2
Parity:	Odd, Even or None
Data Rate:	Odd, Even or None
Data Rate:	50 bps to 115.2 Kbps

DATAPUMP 4

Standard: Two additional Asynchronous Serial Ports (D9) on separate end bracket

Factory fitted option: One Synchronous (D25) and Three Asynchronous (D9) ports



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