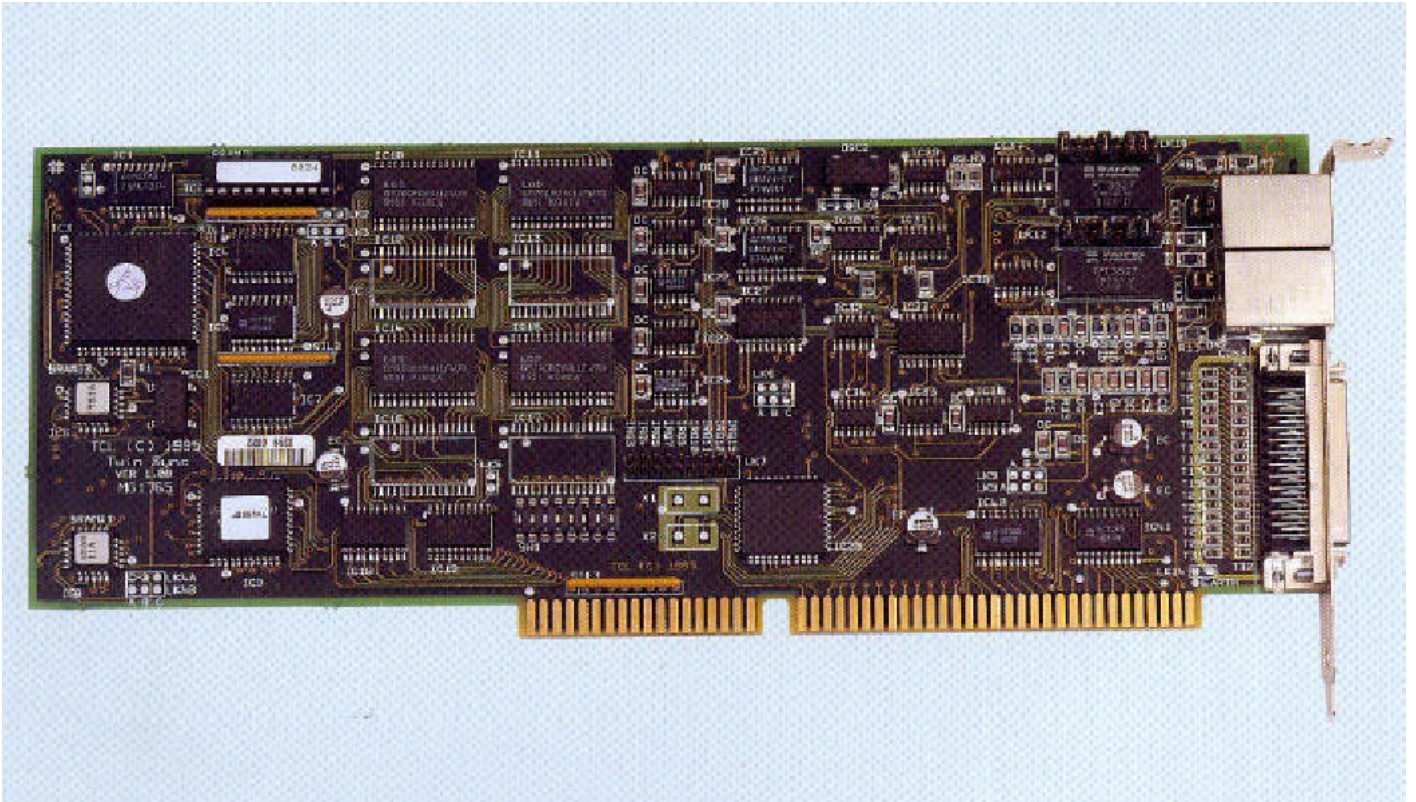


TCL Twin Sync



TwinSync is a high speed two port intelligent communication controller for PCs. The Card provides 2 serial lines, either synchronous or asynchronous, with speeds up to 4Mbps. It is ideally suited for applications such as multiplexing, acquisition of high speed data, preprocessing of raw data and execution of communication protocols such as HDLC, BI- Sync, X.25, SLIP and PPP.

The TwinSync adapter card interfaces to the PC via a dual ported, sliding window memory system. This occupies 8KBytes of memory in the PC, the base address of which is switch selectable between 640K and one Megabyte. The card does not use or require any PCI/O addresses or DMA channels. The TwinSync card can generate interrupts to the PC for given events if required by specific third party applications. TCL supplied device drivers do not use any interrupts.

The TwinSync adapter card uses an on board AMD80c186 processor to control the Serial Communication Controller (SCC). All interrupts and DMA requests generated by the SCC are handled by the TwinSync processor. The TwinSync's private 512Kmemory is used for storing the master control

program as well as for buffering receive and transmit data.

The TwinSync Card provides both RS232 and RS422 interfaces. An external cable is provided offering V24 and V11 (X21) interfaces. For installations using RS485 half duplex protocols, RJ45 connectors on the card end-plate are provided, allowing cost effective multi-drop systems to be implemented.

Using an external clock, synchronous data speeds of up to 4Mbps can be handled by the TwinSync card. Using the on board clock, synchronous data speeds of 1Mbps can be achieved. The maximum asynchronous baud rate supported by the SCC device is 250Kbps.

For OEMs who wish to develop their own application for the TwinSync card, TCL can provide free software development tool kits which includes sample code, loaders to allow development of control programs on the host PC. TCL designers are on hand to support OEMs with their projects.

Features

The TwinSync card uses the TCL unique 8KB dual-ported "sliding window" memory mapped technology which has now become a de facto standard. This technique allows the fast transfer of data between the PC processor and the TwinSync card without the use of any PC interrupts or DMA, with the added advantage of not affecting any of the PC conventional memory.

Manufactured using the latest CMOS surface mount components on a multi-layer three-quarter length card.

Multiple TwinSync cards can be fitted in the same PC.

TwinSync card are supplied with a distribution cable providing V24 and V11/X21 interface connectors.

Onboard RS485 interface (using RJ45 connector) with jumper selectable isolation transformer, providing a two wire isolated connection to remote devices.

RS422 Line receivers terminated with 120 Ohm resistors.

PAL ID facility (Acts as a dongle for protecting

Benefits

12-month return-to-base warranty

High speed data transmission and reception

Places absolute minimum of overhead on the PC's main processor as no interrupts are generated by the card.

All RS232 and RS422 Lines are surge protected to help prevent damage to line drivers from the attached peripherals.

FREE asynchronous device drivers for the operating system of your choice:

DOS, Windows, Windows-NT (NT-RAS), Citrix, OS/2, Multiuser DOS, Real/32, Novell Netware (AIO), Novell Netware CONNECT, IBMLAN Distance (ANDIS), UnixWare, Solaris x86, SCO UNIX, FlexOS, OS9000

General Specification

Bus:	ISA/EISA
Processor:	AMD80c186 20Mhz
PC Interface:	Dual ported 8KB memory mapped (Base address switch selectable between 640KB and 1MB).
Memory:	0.5MB zero wait state static memory, factory fitted option of 1MB memory
PC Interrupts:	2-7, 9-12, 15 jumper selectable
Sync Data Rate	
External Clock:	4Mbps Maximum
Internal Clock:	1Mbps Maximum Clock Sources Software selectable from V11 interface, V24 interface, onboard. 16MHz, 8Mhz, 4Mhz clock source, output of AMD85c30 baud rate generator
Clock Output:	V24 Pin 22
Sync Protocols:	MONOSYNC, BISYNC, SDLC DMA Channel-A full Duplex or Channel-A and Channel-B half-duplex (Jumper selectable).
Async Data Rate:	Up to 38Kbps, 125Kbps, 250Kbps (Optional factory fitted crystal allows 76K8, 115K2, 230K4bps).
Character:	5, 6, 7, 8 bits
Stop Bits:	1, 1.5, 2
Parity:	Odd, Even or None
V24 Signals:	TxD, RxD, DCD, DTR, DSR, RTS, CTS, RI, TxClk, RxClk, ClkOut. (All lines surge protected.)
V11 Signal:	TxD, RxD, C, I, Clock (All lines surge protected.)
RS485:	Two wire Multi-drop capability with isolation transformer.



IT Factor Ltd t/a TCL
24 Thatcham House
Turners Drive, Thatcham
Berkshire RG19 4QD
Tel: + 44 (0) 1635 876754
Fax: + 44 (0) 1635 871739