



C502 Dual-Port Sync Board

Dual-Port High Speed Synchronous Board

Overview

MOXA C502 Dual-Port Sync Board is truly a perfect solution for complex and versatile high-speed synchronous communications applications, such as X.25, Frame Relay, and SS7. Programmers simply need to make use of Moxa's easy-to-use Sync API functions to develop their own applications. And then together with the board's cutting-edge hardware components, C502 will be ready for any synchronous application, such as ATM, Satellite, or KIOSK connectivity.

The HDLC driver provides complete HDLC layer 2 data communications control conforming to CCITT, ITU, and industry standards for layer 2 protocols. This includes frame formatting, bit stuffing, and error detection. To further aid synchronous developers, C502 uses a simplified configuration and the most straightforward Sync API functions. Programming languages C/C++, Delphi, and Visual Basic are all supported.

An onboard RISC CPU, combined with dual-port memory, effectively reduces the burden of the server CPU, bringing overall performance up to 8 Mbps on each port. This is far beyond T1/E1. The renowned Hitachi SCA (Serial Communications Adapter) is used to convert parallel data to serial data, allowing communication with other devices. Furthermore, both synchronous ports are supported with two independent full-duplex transceivers. A FIFO transmit-and-receive buffer and a four-channel DMAC (Direct Memory Access Controller) work together to enable high-speed transfer between SCA and memory.

Features

- V.35/RS-232 selectable interface
- ISA/PCI Bus
- Top-level onboard RISC CPU
- Synchronous baud rate up to 8 Mbps (PCI); 4 Mbps (ISA)
- Supports Bit Sync, Byte Sync
- Provides easy-to-use tools for developing HDLC, SDLC, BSC
- C/C++, Delphi, Visual Basic programming library
- Supports Windows/NT, Windows 95/98, Windows 2000, DOS Watcom C, Linux (PPP), and DOS drivers.

Benefits

- Economic routing solution
- High performance packet forwarding
- Easy to develop
- Multiple sync protocol capability
- Lower PC loading

Applications

- T1/E1 communications
- Sync modem communications
- Satellite communications
- ATM (Automated Teller Machine) communications
- KIOSK connectivity

Ports Interface	1	2	4	8	16	32
RS-232		√				
V.35		√				

Specifications

Hardware

Processor	IDT 79R3041 RISC
I/O controller	Hitachi HD64570 USART Serial Communications Adapter with DMA Controller
Memory	1 MB dual-ported RAM 128 KB SRAM

Interface

Bus	PCI ver.2.1 (32 bit) or ISA (16 bit)
No. of ports	Two sync ports
Sync interface	RS-232, V.35 selectable

Performance

Speed	PCI: 8 Mbps ISA: 4 Mbps
Max. No. of ports	8 (4 boards)

Configuration

IRQ	PCI: Assigned by BIOS ISA: 2, 3, 4, 5, 7, 10 (default), 11, 12, 15 (jumper selectable)
Transmit clocking	PCI: Assigned by BIOS ISA: Internal/External (software selectable)

User Interfaces

OS Supported	Windows 2000, Windows NT 4.0, Windows 95/98, Linux 2.2.14 (PPP), DOS, Watcom C
Protocols	HDLC, SDLC, BSC
Sync API	C/C++, Visual Basic, Delphi for Windows C (DOS Watcom C)

Power & Environment

Power requirements	1.05A (5V); 37 mA (+12V); 60 mA (-12V)
Operating temp.	0 – 55°C
Operating Humidity	5 – 95%RH
Storage Temp.	-20 – 85°C

Dimensions	PCI: 135 x 100 mm (W x D) ISA: 180 x 100 mm (W x D)
Package weight	0.85 kg
Regulatory approvals	FCC, CE

Ordering Information

C502-PCI/35	<ul style="list-style-type: none"> 2-Port Intelligent Sync/WAN Board, PCI bus V.35 connection cable (100 cm)
C502-PCI/232	<ul style="list-style-type: none"> 2-Port Intelligent Sync/WAN Board, PCI bus RS-232 connection cable (100 cm)
C502-ISA/35	<ul style="list-style-type: none"> 2-Port Intelligent Sync/WAN Board, ISA bus V.35 connection cable (100 cm)
C502-ISA/232	<ul style="list-style-type: none"> 2-Port Intelligent Sync/WAN Board, ISA bus RS-232 connection cable (100 cm)
All items include	<ul style="list-style-type: none"> Windows 2000, Windows NT, Windows 95/98, Linux, and DOS drivers User's manual MOXA software CD-ROM



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