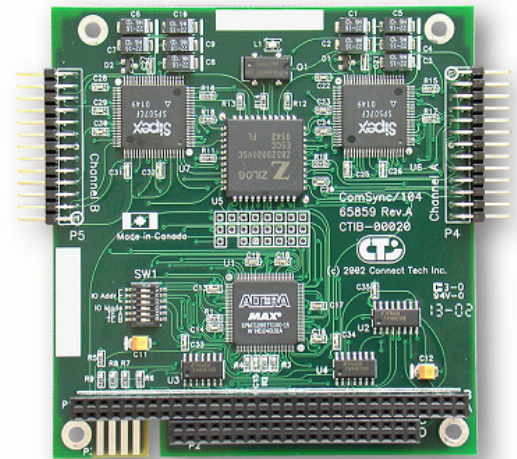# ComSync/104

Applications

The ComSync/104 adapter offers two synchronous/asynchronous RS-232, RS-422, RS-449, EIA-530, EIA-530/A, V.35 and X.21 serial channels for data communications, telecommunications and Point of Sale applications. The ComSync/104 adapter is an ideal industrial strength solution for all applications requiring synchronous/asynchronous communications using PC/104 bus compatible computers.

Features

• Two synchronous/asynchronous serial channels
• Seven software programmable electrical interfaces (RS-232, RS-422, RS-449, EIA-530, EIA-530/A, V.35 and X.21)
• Multiple communication protocols supported: HDLC, SDLC, MonoSync, BiSync and Async
• Eight pre-defined sets of I/O addresses are DIP switch selectable in two modes:
    - Basic: requires eight consecutive addresses
    - Enhanced: requires 64 consecutive addresses. This provides enhanced I/O performance by allowing ESCC read/write operations to occur in one PC/104 bus cycle.
• Register Bit Cloning offers easy setup of various ComSync/104 features when certain register bits of the 85230 ESCC are programmed
• Supports programmable security features such as customer ID, software ID, configuration, etc. (factory programmed)
• Extended temperature model available, with an operating temperature range of -40 to 85 degrees Celsius
• A 20 MHz Zilog 85230 ESCC controls each channel (16MHz on the extended temperature model)
• Data communications speeds up to 4.9 Mbps per channel
• Support for both internal or external serial clocks
• IRQ lines are software selectable for 3, 5, 7, 9, 10, 11, 12 and 15
• Optional ribbon cables with female 26 pin IDC to female DB-25 connectors available
• Easy installation comes with comprehensive manual

Benefits

High Speed, High Performance Communications

Achieve rapid data transfer rates up to 4.9 Mbps. Features such as four software programmable DMA channels and Enhanced I/O Addressing offer you a means to attain exceptional performance for your communication needs.

Hardware Reliability

The Zilog Z85230 ESCC, a robust industry standard, provides dependable synchronous/asynchronous communications for a wide range of applications. This makes the ComSync/104 an excellent choice for mission critical applications that require highly reliable and rugged serial communications.

Hardware Flexibility

The ComSync/104 offers hardware flexibility and adaptability for your application. Multiple electrical interfaces, protocols and encoding schemes are supported. Serial clocks can be internal or external. Bit rates are programmable up to 4.9 Mbps with different oscillators available for custom bit rates.

Software Compatibility

The Zilog 85230 ESCC is an enhanced version of the Zilog 8530 SCC introduced in 1981 and its longevity as a stalwart industry standard offers you a host of third party applications and software/hardware tools to assist you in the development of your communication solution.

Easy to Use

The Register Bit Cloning feature minimizes valuable setup time by eliminating the redundancy of setting up various functions on the ComSync/104 adapter. The ComSync/104 comes ready for simple installation and includes board and a comprehensive manual.

Technical Specifications

Number of ports	2 synchronous/asynchronous serial channels
Electrical Interface	RS-232, RS-422, RS-449, EIA-530, EIA-530/A, V.35, X.21
Protocols	HDLC, SDLC, MonoSync, BiSync, Async
Encoding	Manchester, FM1, FM0, NRZ, NRZI
High Performance	Support for four software programmable DMA channels
Connectors	26 pin header connectors (optional ribbon cables with female 26 pin IDC to female DB-25 connectors available)
Control Signals	TX ±, RX ±, DCD ±, RTS ±, CTS ±, DSR ±, DTR ±, SYNC ±, TRxC ±, RTxC ±
Serial Clocks	Internal or external
Bit Rates	Programmable bit rate generator, up to 4.9 Mbps (different oscillators available for custom bit rates)
I/O Addresses	Eight pre-defined sets of I/O addresses are DIP switch selectable in two modes: Basic: requires eight consecutive addresses Enhanced: requires 64 consecutive addresses
Interrupts	Software selectable for IRQs 3, 5, 7, 9, 10, 11, 12, 15
Communication Controller	20 MHz Zilog 85230 ESCC 16 MHz Zilog 85230 ESCC extended temperature model
Dimensions	Form factor is PC/104 v.2.3 compliant
Power Requirements	+5 VDC @ 190 to 660 mA (typ) ±5% (varies with line interface mode and data transmission speed)
Environmental Requirements	Temperature: (operating) 0° to 70° C (storage) -40° to 150º C Extended temp: (operating) -40° to 85° C Humidity: 95% non-condensing
Bus	PC/104 bus compatible 16 bit connector
Software Compatibility	Third party Zilog 85230 compatible applications and development tools
System Requirements	One available PC/104 module stack connector and hardware interrupt (if required)

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