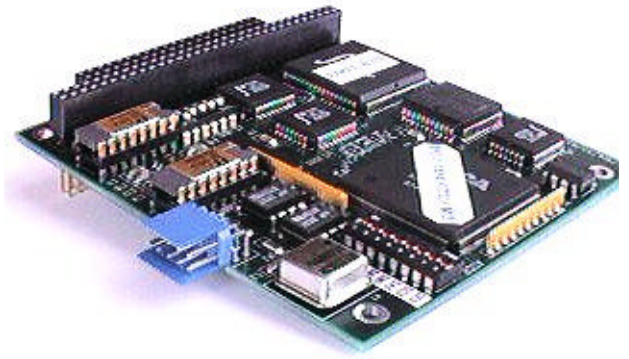




Yeovil Electronic Developments



YED/PC/104/T2/R2

ARINC429 2Tx/2Rx Interface

The PC104/T2/R2 ARINC 429 Interface card is configured as a 16 bit Stack-through PC/104 interface card and comprises of two independent transmitter channels that act as Bus Traffic Simulators and two independent receiver channels that provide advanced Real Time Monitor and Data Acquisition functions. The functions on the four channels are available concurrently at full performance level. In addition to this the card also incorporates a microprocessor, a time tag register, Data Acquisition FIFO, and Dual Port memory for ease of interfacing to the PC bus.

Transmitters

In Simulation mode, the PC104/T2/R2 executes autonomous instructions held in the interface memory and can perform cyclic and one shot modes of operation. Label repetition rate and minor and major frame rates are controlled at the board level. This significantly reduces the host PC overhead. The rise and fall time of the output signals are switchable to adapt to the selected transmit frequency. Each simulated ARINC-429 transmitter can generate all labels and the label data and descriptors can be updated at any time during simulation without corrupting the transmission. Multi-SDI transmissions of the same label are possible and variation of individual Label/SDI descriptors in real time is also permitted.

Receivers

The opto-coupled receivers provide comprehensive Bus Monitoring and Data Acquisition. All received data is time tagged to 1mS resolution. All Label/SDI filtering is performed on the card and data captured from the bus is stored in 8k of FIFO memory. The card can be programmed to generate interrupts when the FIFO reaches the half-full point or the status of the FIFO's can be polled.

'C' Libraries

32-bit 'C' source code libraries are provided with this product for use under Windows 98/NT4/W2k/XP.

YED/PC/104/T2/R2 Product Specification

- ➔ Two independent transmit and two independent opto-coupled receive channels.
- ➔ All data filtered on card by Channel, TAG and SDI.
- ➔ Dual Port RAM interface for holding transmit sequence and ARINC 429 Rx filter tables
- ➔ 8 KB of on board FIFO memory for buffering received data.
- ➔ 28 bit 1mS resolution Time Tag register for timing incoming data and Events.
- ➔ Independent High/Low data rate selection for each transmitter
- ➔ Receiver automatically adapts to high/low speed data rate.
- ➔ Interrupt and polling capabilities of data acquisition FIFO's.
- ➔ Application Program Interface (API in 'C') available with source code.
- ➔ ARINC429 Simulator/Analyser PC software available.
- ➔ 16 bit Stack-through PC/104 interface card.
- ➔ Connection via 10-way PCB mounted connector.
- ➔ Power: +5 volt @ 600mA, +/-12 volt @ 100mA.
- ➔ Optional on-board +/-12 DC-DC converter.
- ➔ Commercial operating temperature range 0 to 70 °C.

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