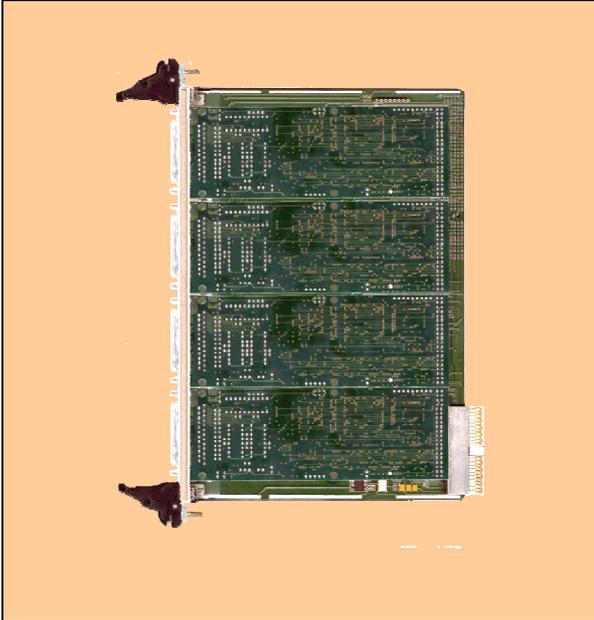# IIB-429-CPCI-4C

ARINC-429 Controller CPCI
8 Transmit and 8 Receive Channels

Functional Description

The IIB-429-CPCI-4C provides 16 ARINC-429 compatible channels (8 receive and 8 transmit) at any rate between 12.5 and 100 kbps.

Because the IIB-429-CPCI is built upon a flexible platform, user functions can be implemented almost without restriction, making this product flexible and user-friendly.

This CompactPCI card has a 6U form factor.

It is also available in 3U form factor (IIB-429-CPCI).

Technical Features

➢ Flexible platform allows easy addition of user-specific requirements

➢ Eight transmit and eight receive channels

➢ Transmit and receive commands for specific labels

➢ 16 user selectable labels for interrupt generation upon reception

➢ Status and statistics monitoring for all channels

➢ Adjustable data rate from 12.5 to 100kbps

➢ ARINC-429 rise/fall capacitors selectable per channel

➢ Provides excellent platform for ARINC-429 protocol analysis

Technical Details

Controller:
The onboard MC68332 32-bit CPU executes firmware from local Flash memory, providing a versatile and user-friendly ARINC-429 interface

Receiving Data:
For each receive channel, a local buffer is available for each label. After its parity is checked, the received message is stored in the corresponding label buffer, overwriting the previous content. The last received message for a specific label can be retrieved, by issuing a command from the host to the firmware interface, specifying the channel and label required.

Transmitting Data:
A message is transmitted by passing it as a parameter to the command interface, and initiate the transmit by issuing the appropriate command. Parity generation and checking is done transparently to the user.
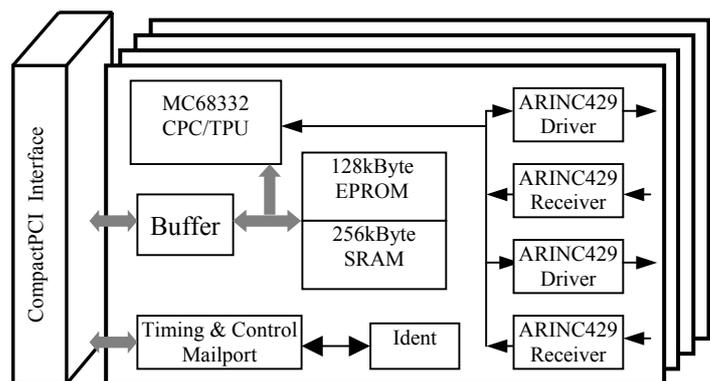
Interrupt Facilities:
The user can select up to 16 labels per channel for interrupt generation upon reception of new data. This feature provides a mechanism that allows a user to monitor a label without data-loss.

Statistics:
For each channel and for each label, the numbers of transmitted and received messages are logged into the statistics part of the local firmware. Parity errors are logged globally to a channel.

PCI Interface:
The IIB-429-CPCI-4C has a PCI Specification 2.1 compliant target interface and uses a PCI9050 PCI Bus Target Interface Chip by PLX Technology Inc.

Ordering Information

IIB-429-CPCI-4C/0T8R	IIB-429-CPCI-4C, no Xmit, 8x Recv
IIB-429-CPCI-4C/4T0R	IIB-429-CPCI-4C, 4x Xmit, no Recv
IIB-429-CPCI-4C/4T8R	IIB-429-CPCI-4C, 4x Xmit, 8x Recv
IIB-429-CPCI-4C/8T0R	IIB-429-CPCI-4C, 8x Xmit, no Recv
IIB-429-CPCI-4C/8T8R	IIB-429-CPCI-4C, 8x Xmit, 8x Recv
IIB-429-CPCI-4C/SW	APIS based software
IIB-429-CPCI-4C/MAN	IIB-429-CPCI manual on paper