

FEATURES

- > Up to 20 ARINC 429 channels
- > Fully independent channel operation
- > Intelligent interface with large buffers
- > Avionics-level input and output discretes
- > Programmable Receive thresholds and Transmit output voltages
- > Full featured API included for Windows XP, 2000, Me, NT, 98, 95, DOS, Linux Kernel (2.4 and 2.6), Visual Basic and LabView
- > Easy-to-use *BusTools*/ARINC Windows-based GUI bus analyzer available
- > 64 Kbyte RAM
- > Support for ARINC 429, 561, 573, 575 and 717 available



Hardware

Available in a range of configurations to match your needs, the intelligent CEI-220 provides complete, integrated databus functionality for ARINC 429/575 and related avionics protocols. The CEI-220 supports maximum data rates on all channels while providing on-board message scheduling, multiple buffering options, error injection/detection, avionics-level discretes, programmable receive level thresholds, filtering, adjustable transmit output voltages and extended operating temperatures. Support for other avionics protocols including ARINC 561, 573, 575 and 717 are available.

Software

Condor software tools and solutions significantly reduce the time required to integrate ARINC protocols into your application. A powerful Application

Programming Interface (API) for Windows XP, 2000, Me, NT, 98, 95, DOS, Linux Kernel (2.4 and 2.6), LabView and Visual Basic is provided for custom application development. Also available for the CEI-220 is LabVIEW VIs support. *BusTools*/ARINC, Condor's Windows-based GUI software, provides a flexible, icon-driven, integrated solution for ARINC databus analysis, simulation, and data logging.

Architecture

Controlled by a powerful Intel 80960 CPU, the CEI-220 features independent selection of data rate & parity, error detection and automatic transmit channel slew rate adjustment. The parametric option adds programmable input thresholds on receive channels, adjustable output voltage on transmit channels as well as error injection. Configurable input discretes support TTL to avionics voltage levels, while output discretes can switch up to 0.5 ampere.



OPERATIONAL FEATURES

On-board firmware, large data buffers and a high-level API are integrated to provide total flexibility in receiving and generating ARINC bus traffic. Filter data by label and/or SDI for each receive channel. Three different methods are provided to buffer received data: Buffered Mode utilizes a separate circular buffer for each channel; Merged Mode combines all received data into a single, time-sequenced circular buffer; and Dedicated Mode provides a snapshot of the very latest data. Transmit messages are automatically scheduled on-board or transmitted from a FIFO.

SPECIFICATIONS

ARINC 429 Receive Channels

- Number of channels: up to 12
- Data rates: 12.5 KHz or 100 KHz
- Standard input levels:
± 6.5 to ±13 VDC (A to B)
- Parametric threshold levels:
± 0.1 to ± 13.5 VDC (A to B)
- Filtering: label and/or SDI
- Parity: odd, even or none
- Error reporting: parity

ARINC 429 Transmit Channels

- Number of channels: up to 12
- Data rates: 12.5 KHz or 100 KHz
- Standard output level: ±10 VDC (A to B)
- Parametric threshold levels:
0 to ±10 VDC (A to B)
- Parity: odd, even or none

AVAILABLE CONFIGURATIONS

CEI-220-22	ARINC 429 intelligent PC/AT card with 2 Rx, 2 Tx channels
CEI-220-44	ARINC 429 intelligent PC/AT card with 4 Rx, 4 Tx channels
CEI-220-48	ARINC 429 intelligent PC/AT card with 4 Rx, 8 Tx channels
CEI-220-84	ARINC 429 intelligent PC/AT card with 8 Rx, 4 Tx channels
CEI-220-88	ARINC 429 intelligent PC/AT card with 8 Rx, 8 Tx channels
CEI-220-88-P	ARINC 429 intelligent PC/AT card with 8 Rx, 8 Tx channels, parametrics
CEI-220-1206	ARINC 429 intelligent PC/AT card with 12 Rx, 6 Tx channels

Software

- API - Includes full featured API for Windows XP 2000, Me, NT, 98, 95, DOS, Linux Kernel 2.4 and 2.6, Visual Basic and LabView - Source code API library included
- GUI - Optional *BusTools*/ARINC GUI bus analyzer
- LabVIEW - Support optional

Architecture

- Processor: Intel 80960
- RAM: 512 Kbyte SRAM, 64 Kbyte dual-port
- 4 KB ISA bus memory footprint

Physical / Environmental

- Half-length PC/AT card size (8" x 4.2")
- Standard operating temperature: 0°C to +70°C
- Weight: 5.5 oz
- Relative humidity: 5% to 90% (non-condensing)

Discrete Inputs

- Number of inputs: 4
- Supports avionics-level (open/gnd or high/low) and TTL/CMOS

Discrete Outputs

- Number of outputs: 4
- Low side switches, each capable of sinking 0.5 ampere

Additional Protocol Support

- ARINC 561/568 6-wire

Power (typical)

- +5 VDC: 75 mA
- +12 VDC: 60mA
- -12 VDC: 45 mA

Warranty: 3 year limited hardware warranty

CEI-220-0812	ARINC 429 intelligent PC/AT card with 8 Rx, 12 Tx channels
CEI-220-1010	ARINC 429 intelligent PC/AT card with 10 Rx, 10 Tx channels
CEI-220-1010-P	ARINC 429 intelligent PC/AT card with 10 Rx, 10 Tx channels, parametrics
CEI-220-44-L	Intelligent PC/AT card with 4 Rx, 4 Tx ARINC 429 channels, and 1 Rx, 1 Tx 6-wire ARINC 561channels

Optional Software

BusTools/ARINC	Bus analysis and simulation software for Windows 2000, Me, NT, 98 and 95
CEI-LV	LabVIEW support for ARINC 429

See our on-line Commercial Products Configuration Guide for available configurations.
<http://www.condoreng.com>

