



# Low Profile PCI Express 1-Port RS-232, RS-422, RS-485, RS-530, RS-530A, V.35 Synchronous Serial Interface (uses Z16C32)

**Part:** 5104e | **Model:** ACB-Ultra.LPCle

The 5104e low profile PCI Express serial interface provides one high-speed synchronous serial port configurable for RS-232, RS-422, RS-485, RS-530, RS-530A or V.35. In RS-232 mode, all common modem control signals are implemented for compatibility with a wide range of peripherals. Additional serial interfaces are provided by a variety of optional cable accessories.

The board utilizes a Zilog® Z16C32 Integrated Universal Serial Controller (IUSC™) with on-chip DMA controller and 32-byte FIFO buffer coupled with 256K of onboard memory, that allows burst data rates to 10 Mbps. The DMA controller supports single buffer, pipelined, array and link list data transfer modes. These features make the 5104e ideal for wide area network (WAN) connectivity, radar, telemetry, and other high-speed serial applications.

Software support, critical for successful synchronous communication development, is provided through Sealevel's SeaMAC synchronous serial driver. HDLC/SDLC protocols are supported as well as certain configurations of Monosync, Bi-sync and Raw modes. Existing customers of the PCI version simply need to update to the latest SeaMAC software driver to ensure their application will continue to operate as expected. The 5104e includes an optional OEM security feature that prevents unauthorized boards from being used in an application.

The 5104e is compatible with any low profile PCI Express slot. A standard profile bracket is also included.

## Features & Specifications

### Low Profile PCI Express 1-Port RS-232, RS-422, RS-485, RS-530, RS-530A, V.35 Synchronous Serial

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#### Features

- Compliant with RoHS and WEEE directives
- Configurable for RS-232, RS-422, RS-485, RS-530, RS-530A, or V.35
- Z16C32 Integrated Universal Serial Controller (IUSC) with built-in DMA controller and 32-byte FIFO buffer
- 256K bytes of onboard RAM/link list DMA supported
- Data rates to 10 Mbps (Burst mode)
- All modem control signals implemented in RS-232 mode
- PCI Express X1 compliant
- Compatible with low profile PCI Express slots (standard profile slots with optional bracket)
- OEM security feature available as an option
- DB25M board connector

#### Specifications

|                                  |  |
|----------------------------------|--|
| <b>PC Bracket</b>                | Low Profile                                |
| <b>V.35</b>                      | Yes  |
| <b>Storage Temperature</b>       | -50°C to 105°C (-58°F to 221°F)            |
| <b>Serial Connector(s)</b>       | DB25M                                      |
| <b>RS-485 Operation</b>          | Full Duplex (4 wire)Half Duplex (2 wire)   |
| <b>RoHS Compliant</b>            | Yes  |
| <b># of Ports</b>                | 1  |
| <b>Communications Chip</b>       | Z16C32 IUSC                                |
| <b>Communications Controller</b> | Z16C32                                     |
| <b>Memory Space</b>              | 256K                                       |
| <b>Max Data Rate</b>             | 10 Mbps (Burst)                            |
| <b>Max Data Distance</b>         | 50 feet (RS-232)4000 feet (RS-485)         |
| <b>Host Interface(s)</b>         | PCI Express                                |
| <b>Humidity Range</b>            | 10 – 90% Relative Humidity, Non-Condensing |
| <b>Electrical Interface</b>      | RS-232, RS-422, RS-485, RS-530, RS-530A    |
| <b>Operating Temperature</b>     | 0°C to 70°C (32°F to 158°F)                |