



# JetCard 1404 / 1404i

## 4-port RS-422 / 485 Universal PCI Card



CE FC  RoHS

- Supports 32-bit Universal PCI bus
- Easy-to-install driver and self-diagnostic utility
- High speed up to 921.6 Kbps
- Built-in 15KV ESD protection
- Automatic Flow Direction Switching Technology
- Supports 128-byte FIFO
- Supports on-board automatic hardware/software flow control
- Supports over current/voltage protection
- Provides 2KV optical isolation ( JetCard 1404i only)

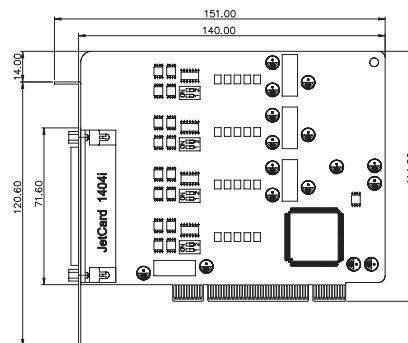
### High Performance

JetCard Series use Oxford OXmPCI954 chip, a 4-port Universal Asynchronous Receiver Transmitter, which is well-known for its high performance. Each UART channel in the JetCard offers data transmission speed up to 921.6 Kbps, and bi-directional 128-byte FIFO for each port. Deep FIFO can reduce the CPU's loading, saving CPU's resources for other important tasks. This chip also allows JetCard to be compatible with the widely-used industry-standard 16C950 devices and PCI bus.

In addition to high speed of 921.6 Kbps and 128-byte FIFO, Oxford chip also equips JetCard with on-board flow control function. Instead of using a driver on the PC to control the traffic flow, JetCard uses the on-board flow control function to reacts directly without waiting for the PC to respond. In this way, the respond time and CPU's loading can be largely reduced, greatly enhancing your system's performance. You can either choose software flow

control, which uses Tx and Rx to send/ receive XON/XOFF signals, or select hardware flow control, which uses CTS#/RTS# to send/ receive the signals. The flow control function is to prevent FIFO from overflow. JetCard is ideally suitable for PC applications, enabling PC users to take advantage of the maximum performance of analog modem or ISDN terminal adapters. JetCard is also suitable for any communications that require high speed RS-232/RS-422/RS-485 interfaces. JetCard 1404 also comes with on-board Automatic Flow Direction Switching Technology. Under a multi-drop 2-wire RS-485 mode, the timing for switching between Idle Mode (data not being transmitted) and Active mode (data being transmitted) must be precise and accurate. With this technology, JetCard can effectively increase RS-485 transmission performance, and largely relieve the PC from the burden of using the driver to switch modes.

### Dimensions (Unit –mm)



## Specification

### Interface

**Bus Interface:** 32-bit Universal PCI

**Number of Ports:** 4

**Max. Number of Boards:** 4

**IRQ:** Assigned by PCI plug and play

**Data Bits:** 5, 6, 7, 8

**Stop Bits:** 1, 1.5, 2

**Parity Bits:** None, Even, Odd, Space, Mark

**RS-422 Signals:**

Tx+, Tx-, Rx+, Rx-, RTS+, RTS-, CTS+, CTS-, GND

**RS-485 (4-wire) Signals:** Tx+, Tx-, Rx+, Rx-, GND

**RS-485 (2-wire) Signals:** Data+, Data-, GND

**RS-485 Data Control:** On-chip Automatic Data Flow Direction Switching Technology (2-wire)

**Isolation Protection:** 2 KV Optical Isolation

( JetCard 1404i only)

### Hardware

**Communication Controller:** 16C950 compatible (OXFORD)

**Board Connector:** DB37 Female

**Cable Connection:** DB9 Male or DB25 Male, 60 cm cable length (optional)

**Cable Model:** CM37M9x4-60 or CM37M25x4-60 (optional)

### Performance

**FIFO Size:** 128 Bytes

**Speed:** 50 bps to 921.6 Kbps

**Surge Protection:** Embedded 15KV ESD Surge Protection

**Terminator:** Built-in termination resistor

### Power Requirements

**Power Consumption(JetCard 1404):** 1.06A (+5 V)

**Power Consumption(JetCard 1404i):** 1.02mA (+5 V)

### Mechanical

**Dimensions:** 138 x 80 mm

### Environmental

**Operating Temperature:** -10 ~ 70°C (14° ~ 158°F)

**Operating Humidity:** 5% ~ 95% (Non-condensing)

**Storage Temperature:** -20 ~ 85°C (-4° ~ 185°F)

**OS Supported:** Windows 98/Me/NT/2000/XP/2003, Linux RedHat Enterprise 4.0 (2.6.9)/RedHat Enterprise 3.0 (2.4.21)/RedHat 9.0 (2.4.20)/RedHat 8.0 (2.4.18)/RedHat 7.3 (2.4.18)/RedHat 7.2 (2.4.7)/FC5(2.6.16)/FC3(2.6.9)/FC2(2.6.5)/FC1(2.4.22)/Mandrake 10.1(2.6.8)/Mandrake 9.2 (2.4.22)

### Regulatory Approvals

**EMI:** FCC, CE

**Warranty:** 5 years

- Industrial PoE Switch
- IP67/68 Ethernet Switch
- Rackmount Managed Switch
- Gigabit Switch
- Redundant Switch
- Entry-Level Switch
- Networking Computer
- Communication Computer
- Ethernet I/O Server
- Serial Device Server
- Media Converter
- Multiport Serial Card
- SFP Module
- Din Rail Power Supply

## Pin Assignments

### RS-422/485 DB9 Male

RS-422		RS-485 4Wires		RS-485 2Wires	
Pin No.	Signal	Pin No.	Signal	Pin No.	Signal
1	TxD-(A)	1	TxD-(A)	1	Data-(A)
2	TxD+(B)	2	TxD+(B)	2	Data+(B)
3	RxD+(B)	3	RxD+(B)	3	
4	RxD-(A)	4	RxD-(A)	4	
5	GND	5	GND	5	GND
6	RTS-(A)	6		6	
7	RTS+(B)	7		7	
8	CTS+(B)	8		8	
9	CTS-(A)	9		9	

### RS-422/485 DB25 Male

RS-422		RS-485 4Wires		RS-485 2Wires	
Pin No.	Signal	Pin No.	Signal	Pin No.	Signal
2	RxD+(B)	2	RxD+(B)	2	
3	TxD+(B)	3	TxD+(B)	3	Data+(B)
4	RTS+(B)	4		4	
5	CTS+(B)	5		5	
6	RTS-(A)	6		6	
7	GND	7	GND	7	GND
8	TxD-(A)	8	TxD-(A)	8	Data-(A)
20	RxD-(A)	20	RxD-(A)	20	
22	CTS-(A)	22		22	

## Ordering Information

### JetCard 1404 4-port RS-422/485 Universal PCI Card

Includes:

- 4-port RS-422/485 Card
- Quick Installation Guide
- Documentation and Software CD-ROM

### JetCard 1404i 4-port RS-422/485 Isolated Universal PCI Card

Includes:

- 4-port RS-422/485 Card
- Quick Installation Guide
- Documentation and Software CD-ROM

## Optional Accessories

### CM37M9x4-60

4-port male DB37 to male DB9 connection cable, 60cm

### CM37M25x4-60

4-port male DB37 to male DB25 connection cable, 60cm



CM37M9x4-60



CM37M25x4-60