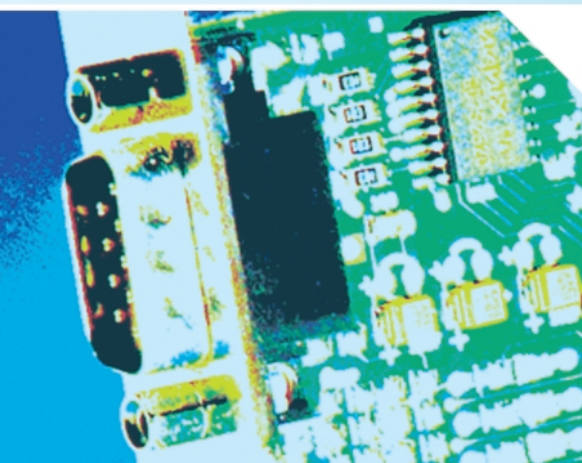


RoHS Compliant



# UP-880 & UP-869 UNIVERSAL POWERED DUAL RS232 WITH SELECTABLE POWER

SERIAL CARDS ENGINEERED TO EXCEED EXPECTATIONS



## Features

- 2 Port Powered RS232
- Pin 1: GND or 12V selectable
- Pin 9: 5V or 12V selectable
- Universal PCI
- 128 Byte FIFOs with user definable trigger level
- Up to 115,200 baud
- Standard Profile Card
- Drivers for all popular operating systems
- Sample Programs, Test & Terminal software - all with source code
- Lifetime Support and Lifetime Warranty

[Click on each feature to find similar products](#)

## Options



Max Current Output 0.5  
Amps: UP-869  
(no power supply  
connector)

Max Current Output  
1.0 Amps: UP-880  
(disk drive power supply  
connector)



Also See: [UP-189](#) & [UP-200](#)

## Description

Universal PCI card is a powered 2 port card, ideal for connecting and powering peripherals such as bar code readers, printers, card readers, display units and cash drawers. Both UP-880 and UP-869 are selectable power options. Ground or 12V can be selected on pin 1 of each port and also 12V or 5V can be selected on pin 9 of each port.

Universal PCI is fully compatible with both 3.3Volt and 5Volt PCI slots; protecting your investment into the future.

Now with Brainboxes Lifetime Warranty and Lifetime Support!

## Software

Microsoft signed drivers (easy installation & robust operation) for:

- o Windows Server 2003 x32 bit & x64 bit Editions
- o Windows XP x32 bit & x64 bit Editions
- o Windows 2000.

64Bit  
Drivers

Fully tested drivers also included for:

- o Windows Me, Windows 98 & 95, Windows NT.

As well as: full product documentation, a thorough troubleshooting guide and terminal software. Detailed sample source code for all popular programming languages.

Need support for other operating systems? Please telephone or email. Find out about Brainboxes excellent driver configurability: [Click Here](#)



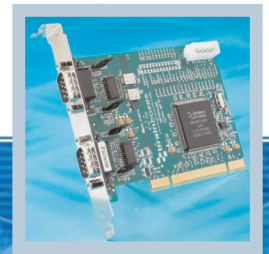
## ORDER

### Description

UNIVERSAL POWERED DUAL RS232 (1.0 AMP)  
UNIVERSAL POWERED DUAL RS232 (0.5 AMP)

### Code

UP-880  
UP-869



# UNIVERSAL POWERED DUAL RS232

## WITH SELECTABLE POWER

Product Code		UP-880 & UP-869
<b>Serial Port</b>		
<p> <b>Pin 1</b> Power  <b>Pin 2</b> RXD  <b>Pin 3</b> TXD  <b>Pin 4</b> DTR  <b>Pin 5</b> GND  <b>Pin 6</b> DSR  <b>Pin 7</b> RTS  <b>Pin 8</b> CTS  <b>Pin 9</b> Power         </p>	<p>Ports</p> <p>Connector</p> <p>UART type</p> <p>FIFO size</p> <p>Powered Output*</p> <p>Transmitted Signal Strength</p> <p>Operating Distance</p>	<p>2 Port RS232</p> <p>DB9 (9 Pin Male)</p> <p>16950 UART inside Brainboxes LYNX BB16PCI958</p> <p>128 Byte with user definable trigger level</p> <p>GND or 12V on Pin 1, 5V or 12V on Pin 9.</p> <p>Max 1.0 Amp (UP-880) , Max 0.5 Amp (UP-869)</p> <p>+/- 12 Volts open circuit RS232 Standard</p> <p>100ft (30metres) RS232 Standard</p>
<b>Serial Port Settings</b>		
	<p>Baud Rate (bits per second)</p> <p>Data Bits</p> <p>Parity</p> <p>Stop Bits</p> <p>Flow Control</p> <p>IRQs</p> <p>Connection Schemes</p>	<p>up to 115,200</p> <p>5,6,7 or 8</p> <p>Odd, Even, None, Mark or Space</p> <p>1, 1.5 or 2</p> <p>CTS/RTS DTR/DSR</p> <p>Plug and play - Shared interrupts for all ports</p> <p>Point to Point</p>
<b>General</b>		
	<p>Bracket Profile</p> <p>PCB Layers</p> <p>Power</p> <p>Weight</p> <p>Size</p>	<p>Standard</p> <p>4</p> <p>190mA @ 5V + Powered Output</p> <p>12mA @ 12V + Powered Output</p> <p>0.097Kg</p> <p>85 x 125 mm</p>
<b>Interface</b>		
	<p>BUS Compatibility</p> <p>OS Compatibility</p> <p>PCI Compliance</p>	<p>32/64 bit Universal (3.3V or 5V) PCI or PCI-X</p> <p>Windows 98/ NT4/ 2000/ XP/ Server 2003</p> <p>Windows XP x64 bit Edition / Windows Server 2003 x64 bit</p> <p>Linux</p> <p>Version 3.0</p>
Approvals & Accreditations		<p>UL, EMC: CE, FCC, PCI Power Management 1.1 Compliant, PCI 3.0 Compliant</p>
Box Contents		<p>Installation CD including manual, Microsoft signed drivers, utilities and sample programs with source code</p> <p>UNIVERSAL POWERED DUAL RS232 with selectable power</p> <p>Installation Guide</p>
OEM option		<p>Available for bulk buy OEM</p>
Product Support		<p>Lifetime Email and Phone Support</p> <p>from fully qualified, friendly staff 40 hours a week</p>
Warranty		<p>Lifetime</p>
Made In		<p>Manufactured in the UK by Brainboxes</p> <p>Winner 2005 European Electronics Industry Awards</p> <p>"Manufacturer of the Year"</p>
Customisable		<p>Brainboxes operate a "Perfect Fit Custom Design" policy for volume users More Info: <a href="#">CLICK HERE</a></p>



# UNIVERSAL POWERED DUAL RS232

## WITH SELECTABLE POWER

### Glossary: Product Features Explained

#### Universal PCI

Universal products allow compatibility with both 3.3 Volt and 5 Volt PCI systems. This ensures that Brainboxes universal card range is backward compatible with older systems and works with all new PCI systems.

More info on 'Universal' products: [Click Here](#)

#### Powered Output

Powered Output cards, can provide a power supply to the device connected to them. This means that the device does not have to have a separate power source, instead it takes its power from Pin 1 and/or 9.

#### PCI Compliant

All Brainboxes Universal PCI cards are fully PCI version 3.0 compliant, in accordance with the PCI-Special Interest Group (PCI-SIG).

#### Large FIFO

FIFO means First In First Out, a FIFO is memory space on the Brainboxes card. A larger FIFO allows more memory space for buffering data, so calls to the computer processor are less frequent. This significantly increases data throughput and improves CPU availability for other applications.

More info: [Click Here](#)

#### 4 Layer PCB

Printed Circuit Board with 4 layers of circuitry complies with the PCI SIG best practice guideline and ensures a more reliable card. 1 layer is for power and 1 for ground which leads to greater EMC shielding for the signals. This ultimately gives greater signal integrity.

#### Surface Mount Components

Most components on a Brainboxes card are placed by a surface mount machine. The surface mount machine allows for highly accurate and fast production of Brainboxes cards. Orders can be met quickly, reliably and with outstanding quality.

#### Capacitors

As required by the PCI-SIG all Brainboxes cards have capacitors connected to all the power pins on the PCI connector, near to the connector. This ensures that the electrical power rails on the Brainboxes card stay at the right voltage, regardless of the power demands placed on them. This helps data signals keep their integrity.



# UNIVERSAL POWERED DUAL RS232 WITH SELECTABLE POWER

## Brainboxes' Service

*"Brainboxes offers free lifetime support for ALL customers."*

We aim to provide industry leading support for our customers. Our highly trained and helpful support engineers sit and work closely with the product designers, developers, and testers to ensure an in-depth knowledge of the products. Support can be found by emailing [support@brainboxes.com](mailto:support@brainboxes.com) or calling: +44 (0)151 220 2500 during UK office hours.

Support website: [www.brainboxes.com/support/index.asp](http://www.brainboxes.com/support/index.asp)



*"Brainboxes' passionately believes in the quality of its manufacturing process and will reflect this by offering a Lifetime Warranty on ALL of its universal serial card range."*



Brainboxes is pleased to be able to extend a new Lifetime Warranty for all universal serial cards products. We have introduced this based on our exceptional manufacturing and design quality and the company ethos of kaizen.

## Brainboxes' Kaizen

*"Brainboxes constantly strives to achieve higher standards for the benefit of customers."*

'Kaizen' is a Japanese term meaning 'continuous improvement'. Kaizen has been implemented throughout Brainboxes, resulting in significant improvements to our products and our customer service, as illustrated by the development of our own custom ASIC "LYNX" and our new lifetime warranty. As part of this ongoing process, in 2004 we embarked on 'Lean' and '6 Sigma' programs which are successfully increasing productivity and efficiency in all areas of the company. **More Info:** [Click Here](#)



## Brainboxes' LYNX

We developed the Brainboxes LYNX (BB16PCI958) to enable us to drive product performance, and supply customer needs for Universal PCI products (3.3V and 5V compatible). By reducing the part count and incorporating several components into one chip (FIFO, UARTs, PCI interface), we have also increased board reliability. The LYNX also features thorough backwards compatibility with legacy systems, tested beyond the databook for compatibility with standard TL16C550, 750 UARTs. The chip is designed so that Brainboxes products will work with all applications designed for TI UARTs. **More Info:** [Click Here](#)

## RS232 Standard

RS232 is the best known industry standard providing asynchronous serial communication using  $\pm 12$  Volt logic levels over distances up to 100 feet (30 metres). RS232 can be configured to suit all needs from 3 wire communication (using transmit, receive and ground lines only), to more complex hardware and software handshaking. **More info:** [Click Here](#)

Power	Pin 1
RXD	Pin 2
RTS	Pin 3
CTS	Pin 4
DSR	Pin 5
GND	Pin 6
DCD	Pin 7
DTR	Pin 8
Power	Pin 9

**RS232 [9 Pin] Pinout**

