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Product Guide

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Industrial Ranges

Process, control and automation in the palm of your hand. Designed for the factory floor.

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Industrial Ethernet to Serial Devices (-30ºC to +80ºC, -22ºF to +176ºF Temperature range)

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Industrial Ethernet Switches (-30ºC to +80ºC, -22ºF to +176ºF Temperature range)

Ethernet 4 Port Switch	SW-504

Ethernet to IO

The Ethernet to IO Range allows network control and monitoring of factory floor devices that use protected high voltage/high current digital or analogue inputs or outputs. The ED range of devices uses the de facto industry standard ASCII command protocol implemented in the popular ADAM/NuDAM/EDAM modules. Our software allows hassle free installation, configuration and monitoring via our easy to use webpage. The Windows software gives local COM ports that are backwards compatible enabling legacy applications and the device to work with a myriad of different 3rd party software.

8 Digital Outputs

RS485 Gateway for NuDAM/ADAM Modules

Easy to use Interface: Great features for remote monitoring

Ethernet port

LED Status Indication

Integral DIN rail mount

8 Digital Inputs

+5V to +30V Power Supply

Ethernet to IO

Industrial Ethernet to IO Devices (-30ºC to +80ºC, -22ºF to +176ºF Temperature range)

Ethernet to 16 Digital Inputs	ED-516
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Ethernet to 8 Analogue Inputs	ED-549
Ethernet to 8 Analogue Outputs	ED-560

Brainboxes' Easy Wire Feature:
Removable screw terminal blocks make installation easier and quicker
Colour coded blocks and ports prevents incorrect connection
Numbered Pins simplifies wiring and removes confusion

Ethernet to IO Device Server:
The Ethernet to IO device is implemented using a Windows COM port driver that is completely compatible with all popular PC packages such as LabView, MATLAB and Agilent VEE and support a range of popular APIs. Continue to get value from your existing development and process control system.

Ethernet to IO +

In our light industrial cases with removable screw terminal blocks our Ethernet to IO Plus range offers a compact solution for process control where more than just Digital In/Out is needed. These multifunction products are still simple to install with configuration and monitoring via our easy to use webpage. Power input from +5VDC to +30VDC. Talk to our sales team about custom configurations.

Screw Terminal Ethernet to DIO Devices (0ºC to +60ºC, +32ºF to +140ºF Temperature range)

Ethernet to 8 Digital Inputs/Outputs	ED-008
Ethernet to 4 Digital Inputs/Outputs + Ethernet to RS232	ED-004
Ethernet to 3 Relays + 3 Digital Inputs	ED-038
Ethernet to 4 Digital Inputs/Outputs + RS232 + Ethernet Switch	ED-204

Ethernet Switches

Connect more to your network.

No software needed simply plug any Ethernet cable into one of the four 10/100Mb/s Ethernet ports on the device to connect it.

Power consumption is optimised based on the status of the link device with energy detect power down for when the cable is not plugged in and power down/slow oscillator mode when the device is not in use.

-40ºC to +80ºC, -40ºF to +176ºF
Temperature range

Cooling vents

Integral DIN rail mount

4 Ethernet ports with status LEDs

brainboxes

SW-504

4 Port Ethernet Switch

Power status LED

+5V to +30V DC Power Inputs

Industrial DIN mountable Ethernet Switch Devices (-40ºC to +80ºC, -40ºF to +176ºF Temperature range)

Industrial Ethernet Switch 4 Port	SW-504

Screw Terminal Ethernet Switch Devices (0ºC to +60ºC, +32ºF to +140ºF Temperature range)

Ethernet Switch 5 Port	SW-005

Ethernet to Serial

Industrial Ethernet to Serial Devices (-30ºC to +80ºC, -22ºF to +176ºF Temperature range)

Ethernet to Serial Adaptor 1 Port RS232/RS422/RS485   ES-511

Ethernet to Serial Adaptor 2 Port RS232/RS422/RS485   ES-522

Slim Shape:
Small foot print for when DIN rail space is a premium
Only 22.6mm wide

Extended Temperature Range:
-30ºC to +80ºC operating range copes with changing temperatures for harsh environments. Monitor CPU temperature via the web interface.

Wide Range Redundant Dual Power Input:
+5VDC to +30VDC accommodates variation in the +24VDC factory floor and allows alternative power sources. A second power supply can be fitted as a back-up to prevent down time should one power source fail. Monitor power supply via the web interface.

Ethernet to Serial

Industrial Ethernet to Serial Devices (-30°C to +80°C, -22°F to +176°F Temperature range)

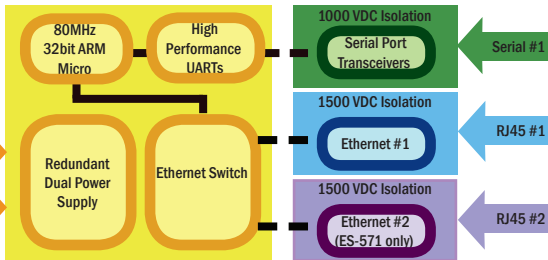|	
Ethernet to Serial Adaptor 1 Port RS232/RS422/RS485 Galvanic Isolation	**ES-551**
Ethernet to Serial Adaptor 1 Port RS232/RS422/RS485 Galvanic Isolation with Ethernet Switch	**ES-571**

NEW

Prevent Electromagnetic Interference Problems with Galvanic Isolation

Power supply domain is totally isolated from all data ports

Latest generation digital isolators and an isolated DC/DC convertor on the serial port

Ethernet ports have mag jacks with isolation transformers

Galvanically isolated power domains each with a minimum of 1,000 VDC isolation, ensuring data communications and power lines are protected from damaging electromagnetic interference. There is no direct conducting path between the isolated domains. Physically breaking the current path in this way offers the highest grade of protection possible preventing damaging high voltage transient surges that would effect devices downstream. Users and devices are protected from possible differences in ground potentials.

Ethernet to Serial

Send serial data over the network.

Allows communication between a serial enabled device and a computer anywhere on the local network, or anywhere in the world (using the internet).

No network expertise required, simply plug your device into the Brainboxes Ethernet to Serial device, then plug that into your network.

A web interface allows secure configuration and control of the serial ports over a local network or the internet using any browser. Our range has Windows COM ports for legacy applications.

Ethernet to Serial Devices RS232 - 9 Pin D

Ethernet to Serial Adapter 1 Port RS232	**BEST SELLER**	ES-246
Ethernet to Serial Adapter 2 Port RS232	**BEST SELLER**	ES-257
Ethernet to Serial Adaptor 4 Port RS232		ES-701
Ethernet to Serial Adaptor 8 Port RS232		ES-279

Ethernet to Serial Devices RS422/485 - 9 Pin D

Ethernet to Serial Adapter 1 Port RS422/485	ES-320
Ethernet to Serial Adapter 2 Port RS422/485	ES-313
Ethernet to Serial Adaptor 4 Port RS422/485	ES-346
Ethernet to Serial Adaptor 8 Port RS422/485	ES-842

Ethernet to Serial

Ethernet to Serial Devices Screw Terminal Blocks

Light Industrial Ethernet to Serial Devices

Ethernet to Serial Adaptor 1 Port RS232	ES-020
Ethernet to Serial Adaptor 1 Port RS232 & 1 Port RS422/485	ES-357

Serial Port Tunneling (individually configurable per port in multi-serial port devices) allows serial cable replacement over any distance, no software required.
You can access the device via TCP/IP sockets from any networked device like an Android tablet, PC or phone. On Windows OS TCP/IP sockets are handled by the Winsock API, this will differ on other OSs.

Speak to our support team about setting up your application:
support@brainboxes.com

USB to Serial

USB is the worlds most popular interconnection standard with over 3 billion devices shipped last year. The plug & play USB experience is one of the reasons USB has stormed the world. In a laboratory or industrial setting many people want the USB connectivity convenience but also want high reliability devices and connections.

USB to Serial Adapter RS232

Small Profile USB 1 Port RS232 1MBaud		US-235
USB to Serial Adapter 1 Port RS232	BEST SELLER	US-101
USB to Serial Adapter 2 Port RS232	BEST SELLER	US-257
USB to Serial Adaptor 4 Port RS232		US-701
USB to Serial Adaptor 8 Port RS232		US-279

USB to Serial Adapter RS422/485

Small Profile USB 1 Port RS422/485 1MBaud	BEST SELLER	US-320
USB to Serial Adapter 1 Port RS422/485		US-324
USB to Serial Adapter 2 Port RS422/485		US-313
USB to Serial Adaptor 4 Port RS422/485		US-346
USB to Serial Adaptor 8 Port RS422/485		US-842

Bluetooth to Serial

Bluetooth is a simple instant radio solution that allows different devices to communicate without cable connections. Since Bluetooth devices are radios, they can even communicate through walls and upto distances of 100m.

The BL-819 and BL-830 are Bluetooth to serial adaptors, they require no driver software to be added to the PC or the peripherals and so are ideal instant cable replacements.

Bluetooth Devices

Bluetooth to RS232 Serial Adapter 1 Port Male	**BEST SELLER**	BL-819
Bluetooth to RS232 Serial Adapter 1 Port Female	**BEST SELLER**	BL-830

Paired Bluetooth Devices

Pre-paired Bluetooth Adaptor 2 Ports RS232	BL-875

Laptop Express Cards

ExpressCards are the new connect standard for laptops and can be found in the latest laptops. ExpressCard slots come in 34mm and 54mm widths, all of Brainboxes ExpressCards will fit in either slot. Use our ExpressCard spacer in 54mm slots when you require added physical security.

The cards are hot swappable and can be added or removed without having to turn your PC on or off.

The XC range is based on PCI Express technology and offers highest performance with ultimate low latency ensuring absolute application compatibility.

PCIe ExpressCard Serial Adapter

PCIe ExpressCard 1 LPT Printer Port	XC-157
PCIe ExpressCard Serial Adapter 1 Port RS232	XC-235
PCIe ExpressCard Serial Adapter 1 Port RS232 and 1 Printer Port LPT	XC-475

ExpressCard Serial Adapter

ExpressCard Serial Adapter 1 Port RS232		VX-001
ExpressCard Serial Adapter 2 Port RS232 with detachable cable	**BEST SELLER**	VX-012
ExpressCard Serial Adapter 1 Port RS422/485	**BEST SELLER**	VX-023
ExpressCard Serial Adapter 2 Port RS422/485 with detachable cable		VX-034
ExpressCard 54MM SPACER		VX-056

PCMCIA

PCMCIA is the classic way of adding serial connectivity to laptops. Increasingly new laptops are coming without PCMCIA slots and using the new ExpressCard slots instead.

The PCMCIA range includes 1 or 2 ports in either RS232 or RS422/485 serial connectivity. As standard most PCMCIA cards have removable cables terminating in a 9 pin D connector. Ruggedised PCMCIA cards have permanently attached cables for increased security.

PCMCIA Devices

PCMCIA 1 Port RS232 with detachable cable	**BEST SELLER**	PM-020
PCMCIA 1 Port RS232 with ruggedised integrated cable		PM-143
PCMCIA 2 Port RS232 with detachable cable		PM-010
PCMCIA 2 Port RS232 with ruggedised integrated cable		PM-132
PCMCIA 1 Port RS422/485 with detachable cable		PM-120
PCMCIA 1 Port RS422/485 with ruggedised integrated cable		PM-154
PCMCIA 2 Port RS422/485 with detachable cable		PM-121

PCI Express

PCI Express (PCIe) slots are replacing PCI slots within desktop PCs and servers. PCIe cards have a similar form factor and user experience as the older PCI cards, however they are both faster and require less power and are becoming the card type of choice. Brainboxes PCI Express cards will fit in any PCI Express slot - x1, x4, x8 & x16.

Brainboxes manufacture an extensive range of PCI Express cards with 1 to 8 ports, RS232 or RS422/485, low profile or standard height, and with or without cables.

<u>PCI Express Serial Cards RS232</u>

PCI Express Serial Card 1 Port RS232	**BEST SELLER**	PX-246
PCI Express Serial Card 1 Port RS232 Low Profile	**BEST SELLER**	PX-235
PCI Express Serial Card 1 Port + 1 x RS232 Low Profile		PX-101
PCI Express Serial Card 2 Port RS232		PX-257
PCI Express Serial Card 3 Port RS232		PX-431
PCI Express Serial Card 4 Port RS232 Quad Cable 4 x 9 pin		PX-701
PCI Express Serial Card 4 Port RS232 (3x9 pin ports + 1x9 pin port)		PX-420
PCI Express Serial Card 4 Port RS232 Low Profile Quad cable 4 x 9 pin		PX-260
PCI Express Serial Card 8 Port RS232 DB9 Octo cable 8 x 9 pin	**BEST SELLER**	PX-279

PCI Express

PCI Express Serial Cards RS422/485

PCI Express Serial Card 1 Port RS422/485	PX-324
PCI Express Serial Card 1 Port RS422/485 Low Profile	PX-320
PCI Express Serial Card 1 Port RS422/485 Opto Isolated	PX-387
PCI Express Serial Card 1 Port RS422/485 Low Profile Opto Isolated	PX-376
PCI Express Serial Card 2 Port RS422/485	PX-313
PCI Express Serial Card 2 Port RS422/485 Opto Isolated	PX-310
PCI Express Serial Card 4 Port RS422/485 Quad cable 4 x 9 pin	PX-346
PCI Express Serial Card 4 Port RS422/485 Low Profile Quad cable 4 x 9 pin	PX-335
PCI Express Serial Card 4 Port RS422/485 With Opto Isolation Quad cable 4 x 9 pin	PX-368

LPT Parallel Printer Port

PCI Express Serial Card 1 Port RS232 with LPT Parallel Printer Port	PX-475
PCI Express Serial Card Parallel Port Printer	PX-146
PCI Express Serial Card Parallel Port Printer Low Profile	PX-157

Power over serial options available - contact sales@brainboxes.com for more information

Powered

uPCI

PCI slots, introduced in the early 1990's, are now being replaced by the new PCI Express slots. Our PCI cards, being compatible with both 5V and 3.3V slots, are universal PCI cards: uPCI.

Brainboxes manufacture an extensive range of PCI cards with 1 to 8 ports, RS232 or RS422/485, low profile or standard height, and with or without cables.
PCI cards are plug & play, fit internally to the PC and give the most secure add on solution for permanent installations.

PCI Serial Card RS422/485

Description		
PCI Serial Card 1 Port RS422/485	**BEST SELLER**	UC-324
PCI Serial Card 1 Port RS422/485 Low Profile	**BEST SELLER**	UC-320
PCI Serial Card 1 Port RS232 + 1 Port RS422/485		UC-357
PCI Serial Card 2 Port RS422/485		UC-313
PCI Serial Card 2 Port RS422/485 Opto Isolated	**BEST SELLER**	UC-310
PCI Serial Card 4 Port RS422/485 Quad cable 4 x 9 pin		UC-346
PCI Serial Card 4 Port RS422/485 Opto Isolated Quad cable 4 x 9 pin		UC-368

25 pin D connectors are an available option with all cable adaptors

uPCI

PCI Serial Card RS232

PCI Serial Card 1 Port RS232	**BEST SELLER** UC-246
PCI Serial Card 1 Port RS232 Low Profile	**BEST SELLER** UC-235
PCI Serial Card 2 Port RS232 Low Profile	UC-101
PCI Serial Card 2 Port RS232 Low Profile on cable	UC-253
PCI Serial Card 2 Port RS232	**BEST SELLER** UC-257
PCI Serial Card 3 Port RS232 (3x9 pin ports)	UC-431
PCI Serial Card 4 Port RS232 (3x9 pin ports + 1x9 pin port)	UC-420
PCI Serial Card 4 Port RS232 DB9 Quad cable 4 x 9 pin	UC-701
PCI Serial Card 4 Port RS232 DB9 Low Profile Quad cable 4 x 9 pin	UC-260
PCI Serial Card 4 Port RS232 Opto Isolated Quad cable 4 x 9 pin	UC-083
PCI Serial Card 4 Port RS232 Opto Isolated Low Profile Quad cable 4 x 9 pin	UC-061
PCI Serial Card 8 Port RS232 DB9 Octo cable 8 x 9 pin	**BEST SELLER** UC-279

ULTRA BAUD

Brainboxes CC-525 and CC-530 provide a ultra high speed serial link over RS422/485 connection. These cards provide high reliability for mission critical applications and a high speed serial data connection of 15,000,000 baud (15 MegaBaud) or 18,000,000 baud (18 MegaBaud).
Purchase of Brainboxes PCI Ultra cards is subject to Minimum Order Quantity, please contact us for a advice.

PCI Cards with Parallel Printer Ports

Parallel Port Printer PCI Card	**BEST SELLER**	UC-146
Parallel Port Printer PCI Card Low Profile	**BEST SELLER**	UC-157
PCI Serial Card 1 Port RS232 with LPT Parallel Printer Port Low Profile		UC-464
PCI Serial Card 2 Port RS232 with LPT Parallel Printer Port		UC-475
PCI Serial Card 2 Port RS232 with LPT Parallel Port Low Profile		UC-203
PCI Serial Card 4 Port RS232 with LPT Parallel Port for Printer		UC-295
PCI Serial Card 4 Port RS232 with LPT Parallel Port for Printer Low Profile Quad Cable 4 x 9 pin		UC-263
PCI Serial Card 4 Port RS232 with LPT Parallel Port for Printer (3x9 pin ports + 1x9 pin port + 1 x 25 pin port)		UC-414

Brainboxes offers a range of powered PoS cards that have +12V and +5V outputs and are jumper selectable with resettable fuse protection. Contact Sales for more information:

sales@brainboxes.com
0151 220 2500

Custom Design

Haven't found what you are looking for?

Need something slightly different or completely new?

Talk to our experienced team about your custom build needs

Brainboxes are committed to innovation and product design. We are also commited to fullfilling the needs needs of our customers and supporting their vast range of applications.

We are happy to develop the specification of products to suit your needs and support you through the instalation and roll our process so that your project runs smoothly.

As we design, manufacture and support our devices we have a unique insight, authority and ability to provide the world's best products and best customer experience. Brainboxes equip our people to embrace the industry's leading business practices and cutting edge technologies, from chip level to board level, so that you the customer benefits directly. All this unique expertise in one location ensures unparalleled ability to deliver what you demand and deserve.

To discuss your custom design needs e-mail: sales@brainboxes.com

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Benefits

As a leading automation, Serial and Bluetooth designer and manufacturer, we actively seek to add value and promote excellence in every aspect of our operations. We are committed to giving you the best product, with the best compatibility and best user experience. We guide you with pre-sales advice, deliver on time and support you through the lifetime of your product.

Support

Warranty Sign up

Our own in-house design and manufacturing gives us exceptional quality and reliability and the confidence to offer our customers lifetime warranty for all serial devices. Simply complete the online form to register.

www.brainboxes.com/lifetime-guarantee

Technical Support

We pride ourselves on offering the industry's best technical support for free to our customers. When you sign up to our life time warranty you gain access to in depth support, covering all products over a wide range of operating systems and applications.

www.brainboxes.com/contact-support

Custom, Roll out and pricing

Let our experienced staff guide you through your tailor made brainboxes package.

www.brainboxes.com/sales-contact-form

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