

Product Guide



Brainboxes is an established UK designer and manufacturer of data and I/O connectivity products.

Our solutions give users simple, reliable communication and control of their equipment globally.

Our team delivers direct friendly expert support at every step of your project to give you exactly what you want



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For smarter out-of-the-box applications get more inside the box

Digital IO with edge processing offers multiple connection options and expansions.

Comes with out-of-the-box software and open source flexibility.

Get industry 4 insight for your existing equipment.



SIGNALS

Existing equipment

Easy Install – little disruption

MACHINE STATE

The edge is where the factory meets the network and communicates, this is a place smart technologies can show their worth. Controllers with edge processing-power filter the machine signal noise down to data that is worth sending out to the network or cloud – moving us from machine to insight.

MACHINE STATS

INSIGHT

With modern software layering up the outputs of common production hardware like lights and sensors becomes simple. More information on how edge computing will form part of the Industry 4 picture can be found at www.brainboxes.com

INTELLIGENCE

Open source with APIs

Format works with proprietary software

Lifetime Warranty

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

www.brainboxes.com/lifetime-guarantee



Lifetime Technical Support

We pride ourselves on offering the industry's best technical support for free to our customers. When you sign up to our lifetime warranty you gain access to in depth support.

www.brainboxes.com/contact-support



Custom Options and Roll Outs

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

www.brainboxes.com/sales-contact-form





Provides the additional Ethernet ports to get devices on the network

Comes in multiple form factors providing the right connection for different enclosures

Industrial DIN mountable Ethernet Switch Devices

Industrial Ethernet Switch 4 Port	SW-504
Industrial Ethernet Switch 5 Port	SW-505
Industrial Ethernet Switch 8 Port	SW-508
Hardened Ethernet Switch 5 Port	SW-705
Hardened Ethernet Switch 8 Port	SW-708



Commercial Ethernet Switch Devices

Ethernet Switch 5 Port	SW-005
DIN-Rail Mounting Kit/Clip	MK-048



Connects to machines, sensors, lights, controllers, conveyors and more

Ideal for monitoring production efficiency – alerts in real time or review later

Digital or Analogue control and monitoring over Ethernet

Modbus TCP supported, Windows compatible and library of APIs

Screw Terminal Ethernet to DIO Devices (0°C to +60°C, +32°F to +140°F 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





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

Ethernet to 16 Digital Inputs	ED-516
Ethernet to 16 Digital Outputs	ED-527
Ethernet to 8 Digital Inputs + 4 Relays	ED-538
Ethernet to 8 Digital Inputs + 8 Digital Outputs	ED-588
Ethernet to 4 Digital IO & RS232/422/485 Serial Port & Switch	ED-504
Ethernet to 8 Analogue Inputs	ED-549
Ethernet to 4 Analogue Outputs	ED-560
Ethernet to 4 RTD Inputs	ED-582
Ethernet to 8 Thermocouple Inputs	ED-593



Extend over any distance

Great for broadcast where Serial is standard

Security applications

Remote monitoring and control



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

1 Port RS232/RS422/RS485

ES-511

2 Port RS232/RS422/RS485

ES-522

1 Port RS232/RS422/RS485 Galvanic Iso

ES-551

1 Port RS232/RS422/RS485 Galvanic Iso & Switch

ES-571



Ethernet to Serial Devices - 9 Pin D

1 Port RS232

ES-246

2 Port RS232

ES-257

4 Port RS232

ES-701

8 Port RS232

ES-279

1 Port RS422/485

ES-320

2 Port RS422/485

ES-313

4 Port RS422/485

ES-346

8 Port RS422/485

ES-842



Ethernet to Serial Devices Screw Terminal Blocks

1 Port RS232

ES-020

1 Port RS232 & 1 Port RS422/485

ES-357



Power over Ethernet to Serial Devices - 9 Pin D

1 Port RS232

ES-446

2 Port RS232

ES-457

1 Port RS422/485

ES-420

2 Port RS422/485

ES-413





Get Serial ports using the world's most popular interconnection standard

USB to Serial Adapter

Ultra Small Profile USB 1 Port RS232 US-159
Isolated

Ultra Small Profile USB 1 Port RS232 US-235
1MBaud

USB to Serial Adapter 1 Port RS232 US-101

USB to Serial Adapter 2 Port RS232 US-257

USB to Serial Adapter 4 Port RS232 US-701

USB to Serial Adapter 8 Port RS232 US-279

Ultra Small Profile USB 1 Port US-320
RS422/485 1MBaud

USB to Serial Adapter 1 Port RS422/485 US-324

USB to Serial Adapter 2 Port RS422/485 US-313

USB to Serial Adapter 4 Port RS422/485 US-346

USB to Serial Adapter 8 Port RS422/485 US-842





CB Devices

Industrial Isolated RS232 Booster	CB-534
Industrial Isolated RS232/RS422/485 Convertor Booster	CB-512
Industrial RS232 to RS422/485 Convertor Booster	CB-523

	ISOLATION	OUTPUT SWING -11V to +11V	RS232	RS422/485	PROTOCOL CONVERSION	MAX BAUD
CB-512	✓	✗	✓	✓	✓	1 Mb
CB-523	✗	✗	✓	✓	✓	1Mb
CB-534	✓	✓	✓	✗	✗	120 kb

PCI Express Serial Cards RS232

	Standard Height	Low Profile
1 Port RS232	PX-246	PX-235
1 Port + 1 x RS232 Low Profile		PX-101
2 Port RS232	PX-257	
3 Port RS232	PX-431	
4 Port RS232 Quad Cable 4 x 9 pin	PX-701	PX-260
8 Port RS232 DB9 Octo cable 8 x 9 pin	PX-279	

LPT Parallel Printer Port

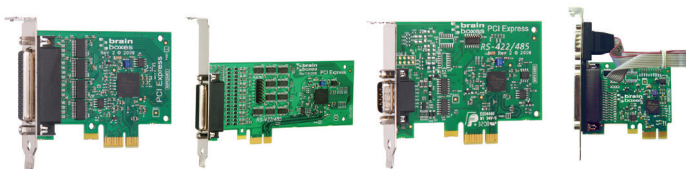
1 Port RS232 with LPT Parallel Printer Port	PX-475	
1 Parallel Printer Port	PX-146	PX-157

PCI Express Serial Cards RS422/485

	Standard Height	Low Profile
1 Port RS422/485	PX-324	PX-320
1 Port RS422/485 Opto Iso	PX-387	PX-376
2 Port RS422/485	PX-313	PX-303
2 Port RS422/485 Opto Iso	PX-310	
4 Port RS422/485 Quad cable 4 x 9 pin	PX-346	PX-335
4 Port RS422/485 Quad cable 4 x 9 pin Opto Iso	PX-368	

Intashield Range PCIe Serial Cards RS232

	Standard Height	Low Profile
1 Port RS232	IX-100	IX-150
2 Port RS232	IX-200	IX-250
4 Port RS232	IX-400	IX-450
1 Parallel Printer Port	IX-500	IX-550



Brainboxes PCI Express cards will fit in any
PCI Express slot - x1, x4, x8 & x16.

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

PCI Serial Card

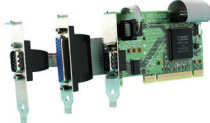
	Standard Height	Low Profile
1 Port RS232	UC-246	UC-235
2 Port RS232	UC-257	UC-101
3 Port RS232 (3x9 pin ports)	UC-431	
4 Port RS232 (3x9 pin ports + 1x9 pin port)	UC-420	
4 Port RS232 DB9 Quad cable 4 x 9 pin	UC-701	UC-260
4 Port RS232 Opto Iso Quad cable 4 x 9 pin	UC-083	UC-061
8 Port RS232 DB9 Octo cable 8 x 9 pin	UC-279	
1 Port RS422/485	UC-324	UC-320
1 Port RS232 + 1 Port RS422/485	UC-357	
2 Port RS422/485	UC-313	
2 Port RS422/485 Opto Iso	UC-310	
4 Port RS422/485 Quad cable 4 x 9 pin	UC-346	
4 Port RS422/485 Opto Iso Quad cable 4 x 9 pin	UC-368	

PCI Cards with Parallel Printer Ports

	Standard Height	Low Profile
1 Port Parallel Printer PCI Card	UC-146	UC-157
1 Port RS232 with LPT Parallel Printer Port		UC-464
2 Port RS232 with LPT Parallel Printer Port	UC-475	UC-203

Intashield Range PCI Serial Cards RS232

	Standard Height	Low Profile
1 Port RS232	IS-100	IS-150
2 Port RS232	IS-200	IS-250
4 Port RS232	IS-400	IS-450
1 Parallel Printer Port	IS-500	IS-550



25 pin D connectors are an available option with all cable adaptors 1 to 8 ports, RS232 or RS422/485, low profile or standard height, and with or without cables.

Brainboxes offers a range of powered PoS cards that have +12V and +5V outputs and are jumper selectable with resettable fuse protection. We can also make ultra high speed cards up to 18 MegaBaud to order.

Contact Sales for more information:

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Designed and manufactured in UK with Global accreditations

