



These network interface cards allow connecting your computer to Serial Industrial Networks.

BradCommunications™ applicom® is the easiest and trouble free solution to quickly connect your visualization application to the industrial world.

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DW2005103

## Serial Network Interface Cards

Best choice for SCADA/HMI applications

### Features

- **New!**
  - Support of Windows 32-bit and 64-bit (WoW64)
  - Support of Windows Seven and 2008 Server
- 1, 2 or 4 Serial ports
- Large choice of Serial protocols, all included in the package.
- Certified with more than 50 SCADA/HMI packages
- On-board processor eliminates data bottle necks, ensuring delivery of time critical information
- Electrical Interfaces available:
  - ▶ RS232C
  - ▶ RS485 / RS422
  - ▶ Current Loop
  - ▶ Profibus RS485
 all with or without galvanic insulation (opto couplers)
- Speed: 50 to 38.400 Kbps
- Embedded Database (32 Kwords + 32 Kbits)
- Gateway feature with PCI4000
  - Serial ↔ Serial
  - Serial ↔ Profibus

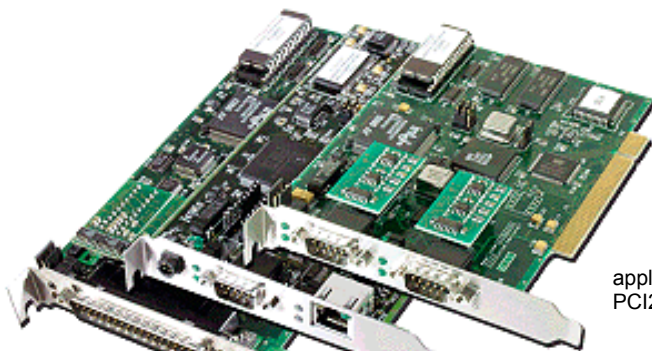
### Supported OS

#### Standard package

- Windows 32-bit and 64-bit (WoW64)
  - Windows XP
  - Windows 2003 Server
  - Windows Vista
  - Windows Seven
  - Windows 2008 Server
  - Windows 2008 Server R2

#### Free Download

- Other operating systems
  - Ardence RTX
  - VxWorks
  - QNX
  - Linux
  - DOS



applicom®  
PCI4000 card  
(RoHS)

applicom®  
PCU1000 card  
(RoHS + 3.3V)

applicom®  
PCI2000 card



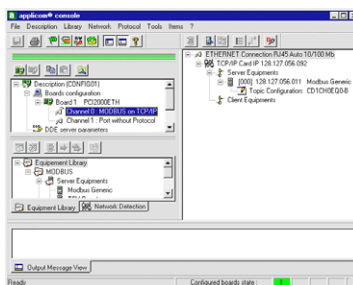
### Overview

applicom® is a range of intelligent communication solutions, complete and ready to use covering more than 40 protocols among a wide choice of industrial networks and fieldbuses: Ethernet TCP/IP, Profibus, Modbus Plus, Data Highway Plus, WorldFIP and Serial Links. These solutions connect your PC-based applications (HMI, SCADA, MES, Custom applications) to industrial equipment (programmable controller, I/O modules, devices...).

Thanks to applicom® smart technology - built-in processor, each interface card is able to execute all management and the processing (polling, frame management, etc.) of communications protocols, resulting in extremely fast, efficient application performance.

The applicom® software package includes:

- Graphical configuration software.
- Test and network diagnostic tools.
- Data servers
  - ✓ OPC DA v1.0a, v2.05 and v3.0 (including an OPC client with its source code)
  - ✓ Wonderware I/O Server (DAServer, DDE, FastDDE, SuiteLink)
- Development libraries
  - ✓ DLL Library
  - ✓ MS Visual Studio (.NET/C#/VB/C++/C), Borland Delphi, Windev
  - ✓ National Instruments (LabWindows CVI, LabVIEW/VI)





- Configuration Software -





- OPC Server -

## Technical Specifications

	applicom® PCU1000 (3.3V / 5V)	applicom® PCIE1000
	 (RJ45 port is not usable)	 (RJ45 port is not usable)
Key Benefits		
	<ul style="list-style-type: none"> <li>• <b>Universal PCI 3.3 V / 5V (PCI-X compatible)</b></li> <li>• <b>RoHS compliant</b></li> <li>• <b>On-board processor</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>PCI Express 1x</b></li> <li>• <b>RoHS compliant</b></li> <li>• <b>On-board processor</b></li> </ul>
Hardware		
<b>Unit</b>	PCI Universal (3.3V / 5V), Short card, single slot	PCI Express 1x, v1.0a
<b>Processor</b>	AMD SC520 - 133 MHz	AMD SC520 - 133 MHz
<b>Memory</b>	16 Mbytes	16 Mbytes
<b>Flash Memory</b>	4 Mbytes	4 Mbytes
<b>Interruption</b>	Hardware Plug&Play	Hardware Plug&Play
<b>DPRAM Address</b>	Hardware Plug&Play (32 Kbytes)	Hardware Plug&Play (32 Kbytes)
<b>Discrete Input</b>	Opto-coupled discrete input, Voltage -> +10 to +30 DC or 24 V AC (50-60 Hz)	Opto-coupled discrete input, Voltage -> DC +10 to +30 or AC 24 V (50 to 60 Hz)
<b>Discrete Output</b>	« Watchdog » output contact free from potential, (floating) (24V DC, 0.25A)	« Watchdog » output contact free from potential, (floating) (24V DC, 0.25A)
<b>Dimensions (LxW)</b>	168mm x 107mm (6.61" x 4.21")	168mm x 107mm (6.61" x 4.21")
<b>Consumption</b>	5.5 W	5.5 W
<b>Operating T°</b>	0° C (32° F) ↔ +70° C (149° F)	0° C (32° F) ↔ +70° C (149° F)
<b>Storage T°</b>	-40° C (-40° F) ↔ +85° C (185°)	-40° C (-40° F) ↔ +85° C (185°)
<b>EMC Compliance</b>	Yes, Industrial and Office use	Yes, Industrial and Office use
<b>RoHS Compliant</b>	Yes	Yes
Communication port		
<b>Port type</b>	1 Asynchronous Serial port	1 Asynchronous Serial port
<b>Connector</b>	D-Sub, 9 pin, male	D-Sub, 9 pin, male
<b>LED Indicators</b>	2 leds: TX / RX	2 leds: TX / RX
<b>Electrical Interface<sup>(1)</sup></b>	RS485/422, galvanic insulation (500 V)	RS485/422, galvanic insulation (500 V)
<b>Baud Rate:</b>	50 bps ↔ 38400 bps	50 bps ↔ 38400 bps

(1): Also available on option: RS232 (2 or 6 wires), Current Loop 20mA by modifying the daughter card electrical interface.

## Technical Specifications

	applicom® PCI2000 (5V)	applicom® PCI4000 (5V)
		
<b>Key Benefits</b>	<ul style="list-style-type: none"> <li>• On-board processor</li> <li>• Gateway feature on 2 ports version</li> </ul>	<ul style="list-style-type: none"> <li>• RoHS compliant</li> <li>• On-board processor</li> <li>• Gateway on 2 ports</li> <li>• Mixed up to 4 Serial or Profibus<sup>(2)</sup> ports</li> </ul>
<b>Hardware</b>		
<b>Unit</b>	PCI (5V), short card, single slot	PCI (5V), short card, single slot
<b>Processor</b>	Intel 80386EX - 24 MHz	Intel 80386EX - 24 MHz
<b>Memory</b>	4 Mbytes	4 Mbytes
<b>Flash Memory</b>	-	-
<b>Interruption</b>	Hardware Plug&Play	Hardware Plug&Play
<b>DPRAM Address</b>	Hardware Plug&Play (2 Kbytes)	Hardware Plug&Play (32 Kbytes)
<b>Discrete Input</b>	-	-
<b>Discrete Output</b>	-	-
<b>Dimensions (LxW)</b>	145 x 106mm (5.70" x 4.17")	175 x 107mm (6.89" x 4.21")
<b>Consumption</b>	4 W	4 W
<b>Operating T°</b>	0° C (32° F) ↔ +70° C (158° F)	0° C (32° F) ↔ +70° C (158° F)
<b>Storage T°</b>	-40° C (-40° F) ↔ +80° C (176°)	-40° C (-40° F) ↔ +80° C (176°)
<b>EMC Compliance</b>	Yes, Industrial and Office use	Yes, Industrial and Office use
<b>RoHS Compliant</b>	No	Yes
<b>Communication port</b>		
<b>Port type</b>	2 Asynchronous Serial ports	4 Asynchronous Serial or Profibus <sup>(4)</sup> ports
<b>Connector</b>	D-Sub, 9 pin, male	D-Sub, 37 pin, male (see Remote Serial Splitter Box accessories).
<b>LED Indicators</b>	2 leds: TX / RX	On Remote Serial Splitter Box
<b>Electrical Interface<sup>(3)</sup></b>	RS485/422, galvanic insulation (500 V)	RS485/422
<b>Baud Rate:</b>	50 ↔ 38400 bps	50 bps ↔ 38400 Kbps

(2): Profibus ports available via Remote Serial Panels BX4010 or BX4010R.

(3): Also available on option: RS232 (2 or 6 wires), Current Loop 20mA by modifying the daughter card electrical interface.




(4): 1x500 Kbps Profibus port + 3x9600 bps Serial ports or 2x187.5 Kbps Profibus port + 2x9600 bps Serial ports



## Accessories for applicom® PCI-4000 card

### Remote Serial Splitter Boxes

A variety of remote serial splitter boxes are available to split the D-Sub 37 pin port of the applicom® PCI-4000 card into 4 D-Sub distinct ports. A junction cable is used to connect the card to the remote panel.

BR4000		
	<b>Format:</b>	Desktop version
	<b>Port Type:</b>	4 Serial ports, 9 pin, D-Sub male
	<b>Dimensions (LxWxH):</b>	185 x 110 x 30 mm (7.28 x 4.33 x 1.18")
	<b>Junction cable:</b>	1.5m (4.92")
	<b>Operating T°:</b>	0° C (32° F) ↔ +65° C (149° F)
	<b>Storage T°:</b>	-40° C (-40° F) ↔ +80° C (176°)
BX4010		
	<b>Format:</b>	Desktop version with galvanic insulation (2500V) based on opto couplers
	<b>Port Type:</b>	4 Serial ports, 9 pin, D-Sub male
	<b>Dimensions (LxWxH):</b>	275 x 175 x 67 mm (10.83 x 6.89 x 2.64")
	<b>Junction cable:</b>	1.5m (4.92")
	<b>Operating T°:</b>	0° C (32° F) ↔ +65° C (149° F)
	<b>Storage T°:</b>	-40° C (-40° F) ↔ +80° C (176°)
	<b>LED Indicators:</b>	2 leds: TX / RX
<b>Power supply:</b>	110V / 230V AC (internal switch)	
BX4010R		
	<b>Format:</b>	1U-19" rack version with galvanic insulation (2500V) based on opto couplers
	<b>Port Type:</b>	4 Serial ports, 9 pin, D-Sub male
	<b>Dimensions (LxWxH):</b>	483 x 200 x 45 mm (19.02 x 7.87 x 1.77")
	<b>Junction cable:</b>	1.5m (4.92")
	<b>Operating T°:</b>	0° C (32° F) ↔ +65° C (149° F)
	<b>Storage T°:</b>	-40° C (-40° F) ↔ +80° C (176°)
	<b>LED Indicators:</b>	2 leds: TX / RX
<b>Power supply:</b>	110V / 230V AC (internal switch)	

# Serial Network Interface Cards



## Protocols (all included with the package)

<b>Serial</b>	• <b>Allen-Bradley</b> - DF1 (PLC-5 and SLC Series)	<b>M, C / S</b>
	• <b>GE Fanuc / Alstom</b> - SNPX (90-XX and 80-XX Series)	<b>M</b>
	• <b>Elsag Bailey</b> - Data Link (5000 & 2000 Series)	<b>M</b>
	• <b>Schneider Electric</b> - Modbus RTU / ASCII	<b>M / S</b>
	• <b>Moeller Group</b> - Sucoma (PS32, PS316 Series)	<b>M</b>
	• <b>Omron</b> - Sysmac Way	<b>M</b>
	• <b>Saia Burgess</b> - S-Bus (PCD Series)	<b>M</b>
	• <b>Siemens</b> - 3964/3964R Free or RK512	<b>M, C / S</b>
	• <b>Siemens</b> - AS511 (S5 Series)	<b>M</b>
	• <b>Siemens</b> - PPI / PPI+ (S7-200 Series)	<b>M</b>
	• <b>Siemens</b> - TI-Dir (TI-505 Series)	<b>M</b>
	• <b>Schneider Electric</b> - Uni-Telway (TSX 17, 37, 57)	<b>M / S, C / S</b>
	<b>Profibus</b>	• Profibus-DP
• FDL S5 (Simatic S5 95U, 115U, 135U, 155U)		<b>M</b>
• <b>Siemens</b> - S7 / MPI (S7-300, S7-400 Series)		<b>M</b>
• FDL Send/Receive		<b>C / S</b>

M: Master, S: Slave, C: Client, S: Server

## Ordering Information

Part Number	SAP	Product description
<b>APP-SR1-PCU-C</b>	1120205017	applicom <sup>®</sup> PCU1000, 1 Serial RS485/RS422 port, PCI 3.3V/5V bus (PCI-X compatible), RoHS compliant
<b>APP-SR1-PCIE</b>	1120205018	applicom <sup>®</sup> PCIE1000, 1 Serial RS485/RS422 port, PCI Express 1x, RoHS compliant
<b>APP-SR2-PCI-C</b>	1120200003	applicom <sup>®</sup> PCI2000, 2 Serial RS485/RS422 ports, PCI 5V bus, RoHS compliant
<b>APP-SR4-PCI-C</b>	1120200004	applicom <sup>®</sup> PCI4000, 4 Serial RS485/RS422 ports, PCI 5V bus, RoHS compliant
<b>APP-INT-232-N</b>	1120260003	RS232 electrical interface without galvanic insulation
<b>APP-INT-232-G</b>	1120260002	1x RS232 electrical interface with galvanic insulation
<b>APP-INT-485-N</b>	1120260005	2x RS485/RS422 electrical interface without galv. insulation
<b>APP-INT-485-G</b>	1120260004	1x RS485/RS422 electrical interface with galvanic insulation
<b>APP-INT-CL2-N</b>	1120260007	Current Loop 20 mA electrical interface (passive) (2 units)
<b>APP-INT-PFB-G</b>	1120170001	1x Profibus 485 electrical interface with galvanic insulation
<b>APP-SBX-BRD<sup>(1)</sup></b>	1120320001	BR4000 Remote Serial Splitter Box, desktop version, 4 ports
<b>APP-SBX-BXD<sup>(1)</sup></b>	1120320002	BX4010 Remote Serial Splitter Box, desktop version, 4 ports, galvanic insulation
<b>APP-SBX-BXR<sup>(1)</sup></b>	1120320007	BX4010R Remote Serial Splitter Box, 19" 1U Rack Mountable, 4 ports, galvanic insulation

(1): Accessories for applicom<sup>®</sup> PCI4000 cards.