RS-232C Serial I/O Board for PCI 2-ch

COM-2(PCI)H

* Specifications, color and design of the products are subject to change without notice.

This product is a PCI bus-supported board designed for extending RS-232C compatible serial communication functionality on your PC.

COM-2(PCI)H has two RS-232C communication ports.

With a 128byte built-in FIFO buffer for transmission and reception of each channel, the product supports a baud rate of up to 921,600bps.

Windows/Linux device driver is supported with this product.

* The contents in this document are subject to change without notice.
* Visit the CONTEC website to check the latest details in the document.
* The information in the data sheets is as of April, 2024.

Features

Max. 921,600bps RS-232C Serial Communication

The COM ports of this product support up to 921,600 bps.
COM-2(PCI)H has two RS-232C-standard serial ports.

Possibly used as Windows, Linux-standard COM ports, using the supported driver library

Combining the product with our device driver COM-DRV makes it possible to use the product in the same manner as the COM ports of a PC.
This product supports communication using DCB structures in the Win32 API and Linux-standard system calls.
In addition, supplies a diagnostic program to confirm hardware operation and to perform a communication test with equipment.

Up to 16 boards can be installed

Up to 16 boards of the same model can be mounted on a single PC.

Each channel is equipped with separate 128-byte FIFO buffers for transmit and receive

Equipped with a buffer memory for transmitting 128 bytes and receiving 128 bytes for each channel. These are FIFO format, useful for high speed communications and to reduce the load to the CPU when transmitting/receiving.

The product use the same easy-to-use 9-pin D-SUB connectors as are used on a PC

Using the most versatile general-purpose 9-pin D-SUB connector for RS-232C, the product allows you to use commercial cables which support the RS-232C standard.

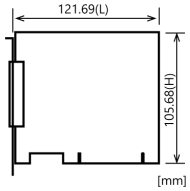
The control line for RS-232C can be controlled and monitored by software

The control lines for RTS, CTS, DTR and DSR can be controlled and monitored using software.

Included Items

Board [COM-2(PCI)H] ...1
Please read the following ...1

Physical Dimensions



The standard outside dimension (L) is the distance from the end of the board to the outer surface of the slot cover.

Specifications

Function Specifications

Item	Specifications
Number of channels	2ch
Interface type	RS-232C
Transfer method	Asynchronous serial transfer
Baud rate	2 - 921,600bps *1 *2
Data length	5, 6, 7, 8 bits 1, 1.5, 2 stop bits *1
Parity check	Even, Odd, Non-parity *1
Controller chip	162850 or equivalent (Each channel has 128-byte receive and 128-byte transmit FIFO buffers.)
Connecting distance	15m(Typ.)
Interrupt requests	1 level use *3
I/O address	Any 32-byte boundary
Power consumption	3.3VDC 170mA (Max.) (JP1 pins 1 and 2 connected) *4 5VDC 170mA (Max.) (JP1 pins 2 and 3 connected) *4
PCI Bus specification	32-bit, 33MHz, Universal key shapes supported *4
Dimension (mm)	121.69(L) x 105.68(H) *4
Weight	100g

*1 These items can be set by software.
In our device driver COM-DRV(WDM) the range is 15 - 921,600 bps.
*2 Data transmission at high speed may not be performed normally depending on the environment including the type of status of connected material of cable and environment.
*3 The interrupt signals from individual channels are arranged into a single interrupt signal and connected to the PCI bus.
*4 Product with different board numbers are different in these specifications. See "Differences by Board Number" at the end of this document.

Installation Environment Requirements

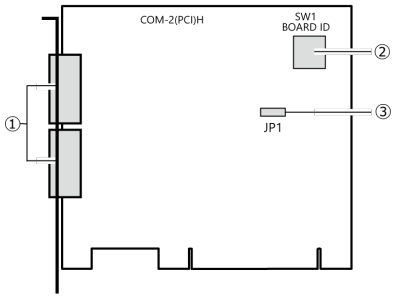
Item	Specifications
Operating ambient temperature	0 - 50°C
Operating ambient humidity	10 - 90%RH (No condensation)
Floating dust particles	Not to be excessive
Corrosive gases	None
Standard	VCCI Class A, CE Marking (EMC Directive Class A, RoHS Directive), UKCA

Support Software

Name	Contents	How to get
Windows Version Serial communication driver COM-DRV(WDM)	Software that makes it possible to use the product in the same manner as the COM ports of a PC running Windows. This software supports communication using DCB structures in the standard OS Win32 API, and the SerialPort class in the .NET Framework and the pySerial module in Python. Various sample programs such as C# and Visual Basic .NET , Visual C++, Python etc. and diagnostic program useful for checking operation is provided.	Download from the CONTEC website *1
Linux Version Serial communication driver COM-DRV(LNX)	Software that makes it possible to use the product in the same manner as the COM ports of a PC running Linux. This software conforms to Linux-standard tty drivers, and the pySerial module in Python. The software includes various sample programs such as gcc (C, C++) and Python programs.	Download from the CONTEC website *1

*1 Download the files from the following URL.
https://www.contec.com/download/

Nomenclature of Product Components



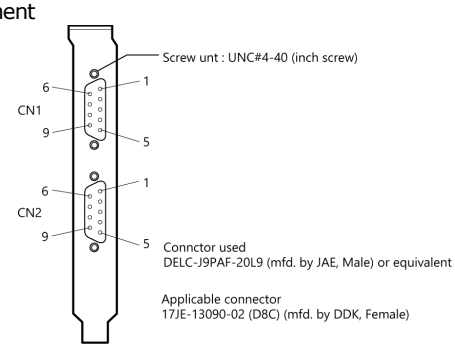
No.	Name	No.	Name
1	Interface Connector (CN1)	3	PCI bus slot power voltage setting jumper (JP1)
2	Board ID Setting Switch (SW1)		

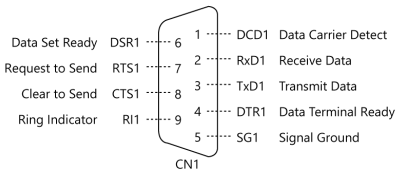
External Connection

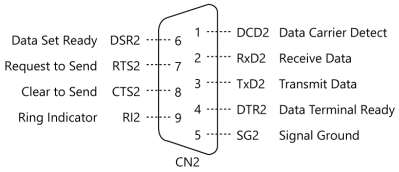
Connecting directly to the port connector

If connecting an external device directly from the connector on the board, use a cable purchased separately.

Pin Assignment





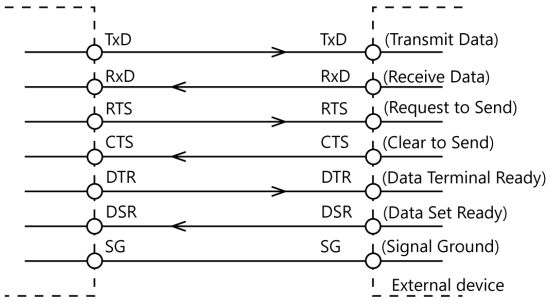


Types of Cable and Example Connections

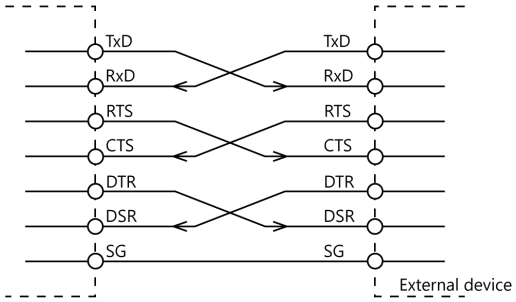
When using an RS-232C interface, different cables are required depending on the type of device to which you are connecting (computer or modem, etc.). Check the requirements of the external device and select either a straight-through or crossed (null modem) cable as appropriate. If special treatment

of the signal lines in the connector is required, ensure that this is done in accordance with the specifications.

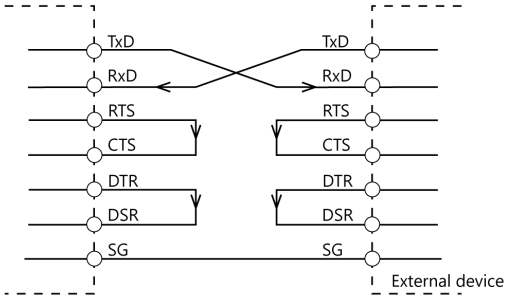
Example Connection to a Modem (Straight cable)



Example Connection to a PC (Cross cable)



Example Connection to a Device



Differences by Board Number

The COM-2(PCI)H is different in specifications, depending on the board number as listed below.

Specification Differences

Board No.	No.7189	No.7189A	No.7189B	No.7189C
PCI bus specification	32bit, 33MHz, 5V	32bit, 33MHz	32bit, 33MHz	32bit, 33MHz
Universal key shapes supported	Absent	Present *1	Present *2	Present *2
Power voltage setting jumper (JP1)	Absent	Absent	Present	Present
Power consumption	5VDC 250mA (Max.)	5VDC 250mA (Max.)	5VDC 100mA (Max.) 3.3VDC 100mA (Max.)	5VDC 170mA (Max.) 3.3VDC 170mA (Max.)
External dimension	121.69(L) x 106.68(H)	121.69(L) x 105.68(H)	121.69(L) x 105.68(H)	121.69(L) x 105.68(H)

*1 5V is supplied to the 5V pin.
*2 Power voltage is set by jumper.