RS-232C 4ch Serial I/O Board for Low Profile PCI
COM-4(LPCI)H

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

The product has four RS-232C communication port.

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 June, 2025.

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

Features

Max. 921,600bps RS-232C Serial Communication
The COM ports of this product support up to 921,600 bps. The product has four RS-232C-standard serial port.

Possibly used as Windows, Linux-standard COM ports
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.

Support for Low Profile size slot / standard size slot (bundled with bracket)
Bundled with each bracket for Low Profile size slot / standard size slot. Exchanges it for the standard size bracket when mounting on the standard size slot.

Conversion cable is available as optional
Distribution cable for 4channels is available as optional.

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.

Optional Products

Product Name	Model type	Description
Connection Conversion Cable for Serial I/O (44P→9Px4)	PCE68-9PS	

Visit the CONTEC website for the latest optional products

Specifications

Function specification

Item	Specifications
Number of channels	4ch
Interface type	RS-232C
Transfer method	Asynchronous serial transfer
Baud rate	30 - 921,600bps *1*3
Data length	5, 6, 7, 8 bits 1, 1.5, 2 stop bits
Parity check	Even, Odd, Non-parity
Controller chip	162850 or equivalent (It has 128-byte receive and 128-byte transmit FIFO buffers.)
Connecting distance	15m(Typ.)
Interrupt requests	1 level use *2
I/O address	Any 32-byte boundary
Power consumption	3.3VDC 210mA (Max.) (JP1 pins 1 and 2 connected) *3 5VDC 210mA (Max.) (JP1 pins 2 and 3 connected) *3
PCI Bus specification	32bit, 33MHz, Universal key shapes supported *3
Dimension (mm)	121.69(L) x 63.41(H) *3
Weight	60g

*1   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.

*2   The interrupt signals from all channels are connected as a single interrupt signal on the PCI bus.

*3   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℃
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

Physical Dimensions

121.69(L)

63.41(H)

[mm]
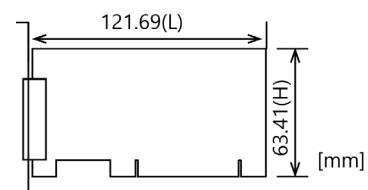
The standard outside dimension (L) is the distance from the end of the card to the outer surface of the slot cover.

Included Items

Product ... 1
Standard Size Bracket ... 1
Please read the following ... 1

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.

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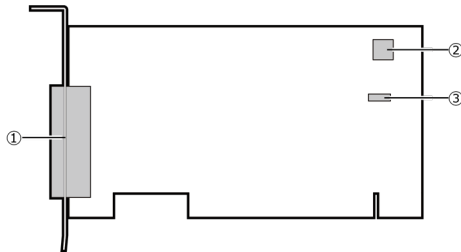
| No.	Name
1	Interface Connector (CN1)
2	Board ID Setting Switch (SW1)
3	PCI bus slot power voltage setting jumper (JP1)

External Connection

When using a COM-4(LPCI)H, an alternative to connecting an external device directly to the connector on the board is to use a connection conversion cable or connection conversion unit.

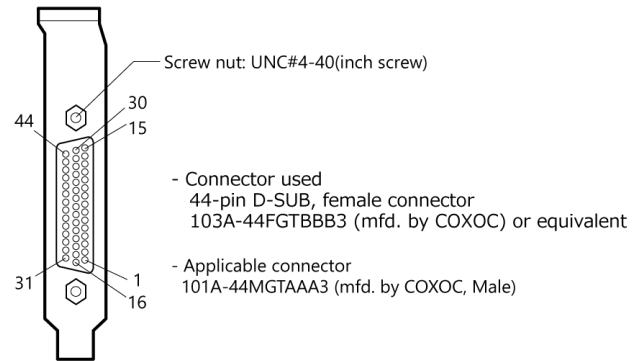### Using the 9-pin D-SUB Connector Conversion Cables
Use a PCE44/9P4S connection conversion cable (purchased separately) to connect to external devices after dividing into four 9-pin D-SUB male connector channels.
Use separately purchased 9-pin D-SUB or equivalent cables to connect from the four individual connectors.
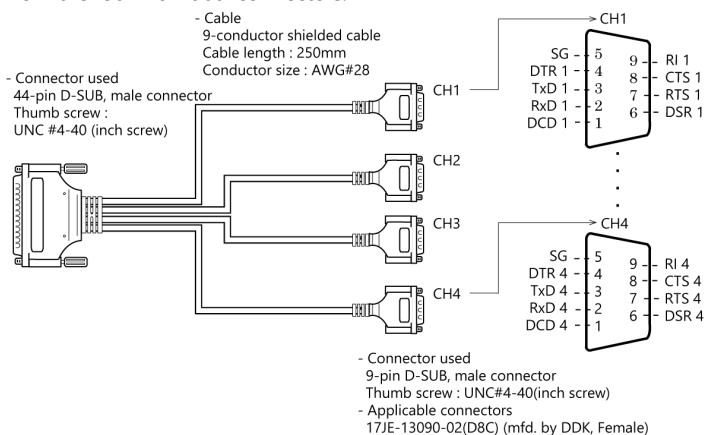
Connecting it directly from the on-board connector
If connecting an external device directly from the connector on the board, make your own cable and connect it.


Screw nut: UNC#4-40(inch screw)

- Connector used
  44-pin D-SUB, female connector
  103A-44FGTBBB3 (mfd. by COXOC) or equivalent

- Applicable connector
  101A-44MGTAAA3 (mfd. by COXOC, Male)

| Pin No.	Signal name	Pin No.	Signal name	Pin No.	Signal name
44	DCD1	30	DSR1	15	CTS1
43	TxD1	29	RxD1	14	RI1
42	SG	28	RTS1	13	DTR1
41	N.C.	27	N.C.	12	N.C.
40	DCD2	26	DSR2	11	CTS2
39	TxD2	25	RxD2	10	RI2
38	SG	24	RTS2	9	DTR2
37	N.C.	23	N.C.	8	N.C.
36	DCD3	22	DSR3	7	CTS3
35	TxD3	21	RxD3	6	RI3
34	SG	20	RTS3	5	DTR3
33	DCD4	19	N.C.	4	N.C.
32	TxD4	18	DSR4	3	CTS4
31	SG	17	RxD4	2	RI4
-----		16	RTS4	1	DTR4

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.
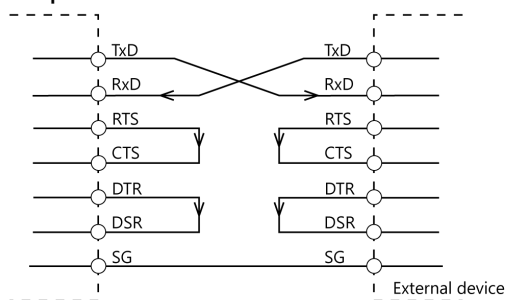
Example Connection to a Modem (Straight cable)
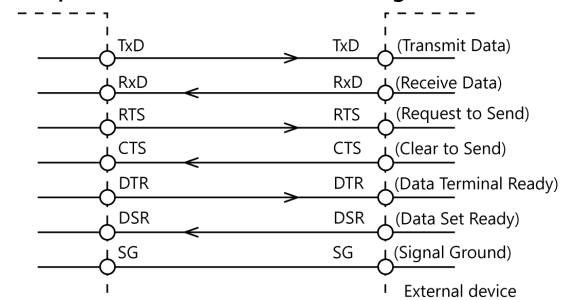
Example Connection to a PC (Cross cable)
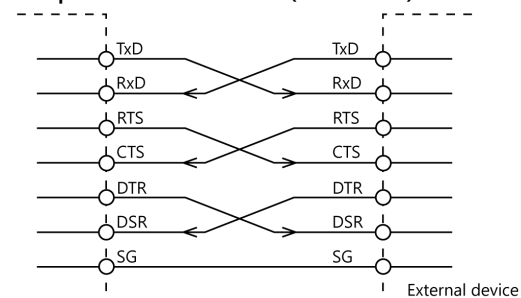
Example Connection to a Device

Differences by Board Number

Item	Board No.			
	No.7210, No.7210A	No.7210B	No.7210C	No.7210D or later
PCI bus specification	32bit, 33MHz	32bit, 33MHz	32bit, 33MHz	32bit, 33MHz
Universal key shapes supported	Absent*1	Present*2	Present*2	Present*2
Power voltage setting jumper (JP1)	Absent	Present	Present	Present
Power consumption	5VDC 150mA(Max.)	5VDC 150mA(Max.) 3.3VDC 150mA(Max.)	5VDC 210mA(Max.) 3.3VDC 210mA(Max.)	5VDC 210mA(Max.) 3.3VDC 210mA(Max.)
Baud rate	2 - 921,600bps	2 - 921,600bps	2 - 921,600bps	30 - 921,600bps

*1 : 5 V is supplied to the 5V pin.

*2 : Power voltage is set by jumper.