

RS-232C Serial I/O Board for PCI Express Low Profile Size 8ch type **COM-8C-LPE**



* 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.

COM-8C-LPE has eight 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

COM-8C-LPE : Distribution cable for 8channels 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.

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

COM-8C-LPE has eight 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 February, 2025.

Specifications

Function specification

Item	Specifications
Number of channels	8ch
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 (Each channel 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 350mA(Max.)
PCI Bus specification	PCI Express Base Specification Rev. 1.0a x1
Dimension (mm)	121.69(L) x 67.90(H)
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 are arranged into a single interrupt signal and connected to the PCI Express 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°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

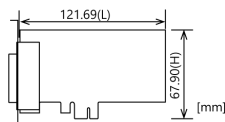
*1 Download the files from the following URL.

<https://www.contec.com/download/>

Included Items

Product [COM-8C-LPE] ...1
Standard Size Bracket ... 1
Please read the following ... 1

Physical Dimensions



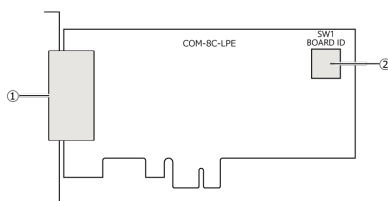
The standard outside dimension (L) is the distance from the end of the card to the outer surface of the slot cover.

Optional Products

Product Name	Model type	Description
Connection Conversion Cable for RS-232C (68Pin→9Pin×8)	PCE68-9PS	

Visit the CONTEC website for the latest optional products.

Nomenclature of Product Components



No.	Name
1	Interface Connector (CN1)
2	Board ID Setting Switch (SW1)

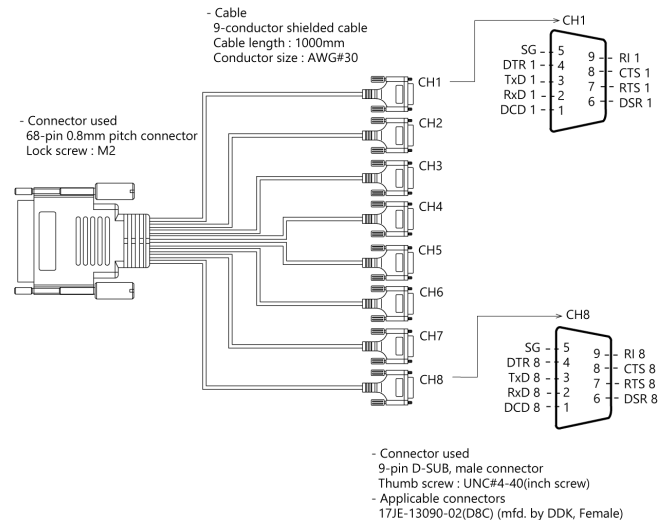
Connecting to an External Device

When using a COM-8C-LPE, 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 PCE68-9PS connection conversion cable (purchased separately) to connect to external devices after dividing into eight 9-pin D-SUB male connector channels.

Use separately purchased 9-pin D-SUB or equivalent cables to connect from the eight individual connectors.



Connection conversion cable (Option)

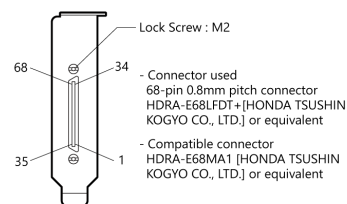
Connection Conversion Cable for RS-232C (68Pin→9Pin×8)

PCE68-9PS

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.

Pin Assignment

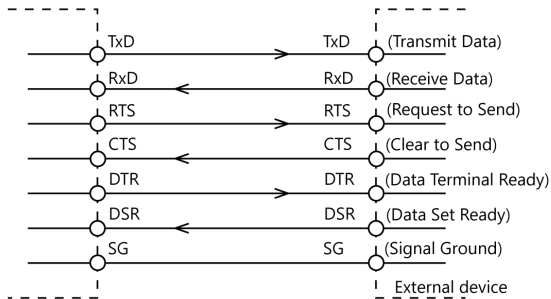


Pin No.	Signal name	Pin No.	Signal name	Pin No.	Signal name
68	RxD2	46	DTR6	23	DTR3
67	CTS2	45	DSR6	22	DCD3
66	RI2	44	TxD6	21	RTS3
65	RTS2	43	GND	20	RI3
64	DCD2	42	TxD8	19	CTS3
63	DTR2	41	DSR8	18	RxD3
62	DSR2	40	DTR8	17	RxD5
61	TxD2	39	DCD8	16	CTS5
60	GND	38	RTS8	15	RI5
59	TxD4	37	RI8	14	RTS5
58	DSR4	36	CTS8	13	DCD5
57	DTR4	35	RxD8	12	DTR5
56	DCD4	34	RxD1	11	DSR5
55	RTS4	33	CTS1	10	TxD5
54	RI4	32	RI1	9	GND
53	CTS4	31	RTS1	8	TxD7
52	RxD4	30	DCD1	7	DSR7
51	RxD6	29	DTR1	6	DTR7
50	CTS6	28	DSR1	5	DCD7
49	RI6	27	TxD1	4	RTS7
48	RTS6	26	GND	3	RI7
47	DCD6	25	TxD3	2	CTS7
		24	DSR3	1	RxD7

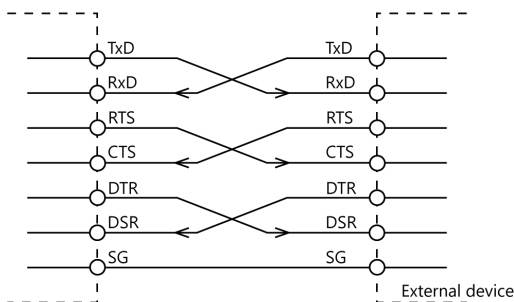
Types of Cable and Example Connections

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.

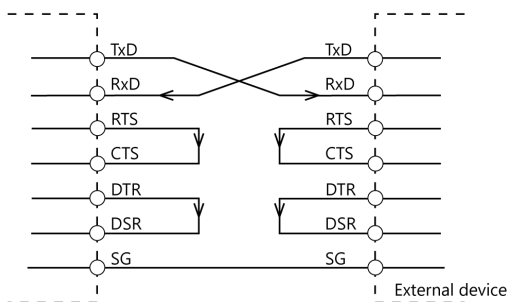
Example Connection to a Modem (Straight cable)



Example Connection to a PC (Cross cable)



Example Connection to a Device



Differences by Board Number

The products are different in specifications, depending on the board number as listed below.

COM-8C-LPE

Item	Board No.	
	No.8643, No.8643A	No.8643B or later
Baud rate	2 - 921,600bps	30 - 921,600bps