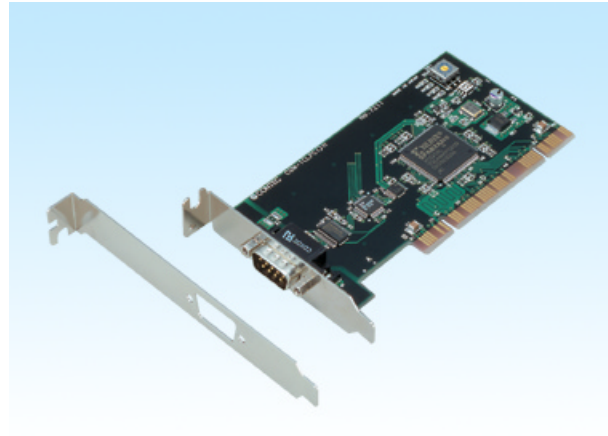**Low Profile PCI-bus RS-232C Serial I/O Board
1Ch Type**

COM-1(LPCI)H

This board is external equipment and an interface board of the
Low Profile PCI conformity which performs serial
communication of RS-232C conformity.
It has serial port of one channel by 1 sheet.
Attached standard COM driver software [COM Setup Disk]
by using it, it can access as a Windows or standard COM
port for Linux.

Features

- It can mount in the space saving personal computer which carried the Low Profile PCI slot.
- It corresponds to a maximum of 921,600bps high-speed communication.
- A baud rate can be set up by software.
- FIFO buffer of 128bytes of reception is carried 128bytes of transmission.
- The board of a maximum of 16 sheets can be extended, and setup to COM1-COM256 is possible.
- It can be used as Windows and a standard COM port of Linux by attached driver software.
- The same 9pin D-SUB connector as a personal computer which is easy to use is adopted.
- It can mount also in standard PCI slot by replacement of a bracket (standard appending).

Specification

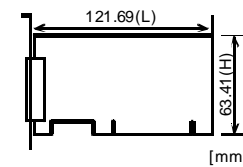| Item	Specification
Number of channels	1ch
Interface type	RS-232C
Transfer method	Asynchronous serial transfer
Baud rate	2 to 921,600bps [1][2]
Data length	5, 6, 7, 8 bits 1, 1.5, 2 stop bits [1]
Parity check	Even, Odd, Non-parity [1]
Controller chip	162850 or equivalent Each channel has 128-byte receive and 128-byte transmit FIFO buffers.)
Connecting distance	15m(Typ.)
Interrupt requests	1 level use
I/O address	Any 32-byte boundary
Power consumption	5VDC 150mA (Max.)
Operating temperature	0 to 50° C, 10 to 90%RH(No condensation)
PCI bus specification	32bit, 33MHz, 5V or 3.3V [3]
Dimension (mm)	121.69(L) x 63.41(H)
Weight	60g

*1 These items can be set by software.
For the "Driver Library API-PAC(W32)" and the "Standard COM Driver Software COM Setup Disk" on the supplied CD-ROM, the range is 15 to 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 Either a 5V or 3.3V version PCI bus can be used. However, the 5V pin on the bus must supply 5V.

Board size

121.69(L)

63.41(H)

[mm]

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

Support Software

Attached support software

Standard COM serial communication driver software COM Setup Disk

It is the software for using the serial communication board of our company like the COM port (standard COM) of the main part of a personal computer by Windows or Linux. It can set up to COM1-COM256 by extension of a board.

It is possible to perform various serial communications, such as remote access service (RAS) and a power supply (UPS) non-cut the electric current off.

In Windows, it corresponds to the standard Win32API communication functions (CreateFile () and WriteFile(), ReadFile () and SetCommState(), etc.) for OS. It corresponds to communication control (MSComm) of Visual Basic.

In Linux, it is based on the standard type driver for OS. It corresponds to the standard function of open () and close(), read () and write(), etc.

Environment of operation

The main correspondences OS Windows XP, 2000, NT, Me, 98, Linux, etc.

Note!
- *The number of the maximum COM ports changes with OS environment to be used.*

Optional support software

Collection for measurement systems development of ActiveX components ACX-PAC(W32)BP

It is the convenient measurement systems development tool for Windows in which the collection of examples which can be used immediately, and the collection (collection of software parts) of components which can program easily only by combining were mentioned.

Component for control of the input-and-output board (card) of our company is made the one package. Analog I/O, digital I/O, control of each interface of GPIB communication and X-Y graph display, and file preservation are possible.

Collection for measurement systems development of ActiveX components ACX-PAC(W32)AP

In addition to the function of ACX-PAC(W32)BP, components, such as display systems, such as various graph, switch, and lamp, and operation / analysis, serve as a package.

Gratis download service

API Function Library API-PAC(W32)

It is the library software which offers the command to the hardware of our company in standard Win32API function (DLL) form for Windows. By the various programming languages which are supporting Win32API functions, such as Visual Basic, and Visual C/C++, the high-speed application software which harnessed the special feature of the hardware of our company can be created.

The newest driver and download service (http://www.contec. co.jp/apipac/) of difference file are also offered.

Environment of operation

Main correspondence OS Windows 2000, NT, Me, 98, etc

Main adaptation languages Visual C++, Borland C++, Visual Basic, etc.

Others The hard disk which has 20MB empty domain for every library software is required.

Note!
- *They are the local functions which were original with our company as for this library, and were defined. (SioOpen ( ) and SioWrite( ), SioRead ( ) and SioStatus( ), etc.) It is not compatible with the standard Win32API communication functions (CreateFile( ) and WriteFile( ) etc.) for OS.*

When using it by MS-DOS

Please refer to the sample program for MS-DOS in appending CD-ROM.

Cable & Connector (Option)

Cable (option)

RS-232C D-SUB9P straight cable (1.8m) : RSS-9M/F
RS-232C D-SUB9P cross cable (1.8m) : RSC-9F
RS-232C connector conversion straight cable
　(25M -> 9F, 1.8m) : RSS-25M/9F
RS-232C connector conversion cross cable
　(25F -> 9F, 1.8m) : RSC-25F/9F
The distribution cable for COM-4ch board
　(44M -> 9Mx4,250mm) : PCE44/9P4S
The distribution cable for COM-2ch board
　(44M -> 9Mx2,250mm) : PCE44/9P2S

Connector (option)

9pin D-SUB (male) connector Five-piece set :CN5-D9M
9pin D-SUB (female) connector Five-piece set :CN5-D9F
25pin D-SUB (male) connector Five-piece set :CN5-D25M
25pin D-SUB (female) connector Five-piece set :
　　　　　　　　　　　　　　　　　　　CN5-D25F
44 pin D-SUB (male) connector Five-piece set :
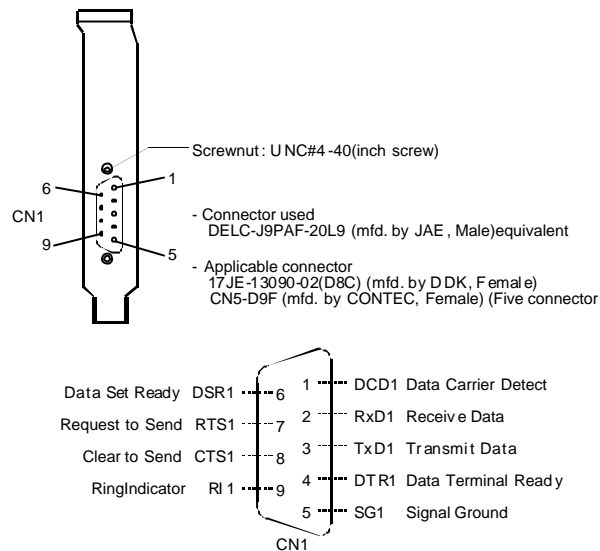　　　　　　　　　　　　　　　　　　　CN5-D44M

Packing List

- Board[COM-1(LPCI)H] - 1
- This Users Manual - 1
- COM Setup Disk(CD-ROM) - 1
- Bracket for PCI - 1

External Connection

Connecting directly to the port connector

When connecting directly from the connector on the board to the external device, use the appropriate cable which can be purchased separately. If making your own cable, use a CN5-D9F or similar connector which can be purchased separately.

Pin Assignment

Screwnut : UNC#4-40(inch screw)

CN1
6
1
9
5

- Connector used
  DELC-J9PAF-20L9 (mfd. by JAE, Male)equivalent

- Applicable connector
  17JE-13090-02(D8C) (mfd. by DDK, Female)
  CN5-D9F (mfd. by CONTEC, Female) (Five connector

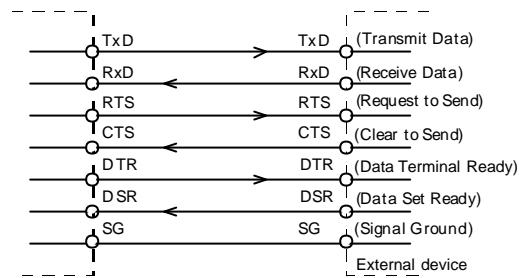|		
Data Set Ready DSR1	6 1	DCD1 Data Carrier Detect
Request to Send RTS1	7 2	RxD1 Receive Data
Clear to Send CTS1	8 3	TxD1 Transmit Data
RingIndicator RI 1	9 4	DTR1 Data Terminal Ready
	5	SG1 Signal Ground

CN1

Cable (option)

RS-232C D-SUB9P straight cable (1.8m) RSS-9M/F
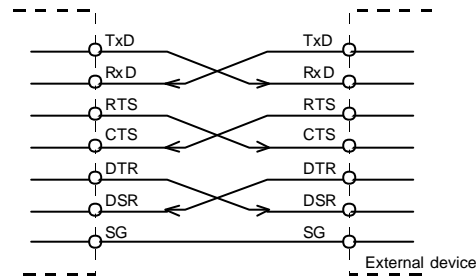RS-232C D-SUB9P cross cable (1.8m)   RSC-9F

Cable type and Connection Sample

The cables which use connection of RS-232C interface by the apparatus connected like a modem or a computer (personal computer) may differ. Therefore, a cable should prepare a straight type or a crossing (reverse) type by the classification (specification) after checking the specification of the external apparatus to connect. Furthermore, when there is the necessity for signal line processing within a connector, please unite with specification and process appropriately.
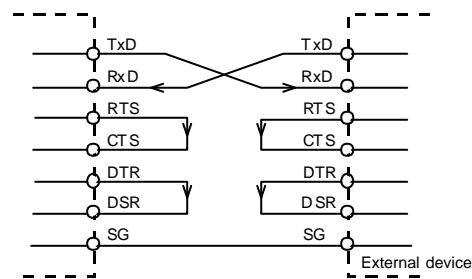
The example of connection with a modem (straight cable)

TxD	TxD	(Transmit Data)
RxD	RxD	(Receive Data)
RTS	RTS	(Request to Send)
CTS	CTS	(Clear to Send)
DTR	DTR	(Data Terminal Ready)
DSR	DSR	(Data Set Ready)
SG	SG	(Signal Ground)

External device

The example of connection with a personal computer (cross cable)

TxD	TxD
RxD	RxD
RTS	RTS
CTS	CTS
DTR	DTR
DSR	DSR
SG	SG

External device

The example of connection with apparatus

TxD	TxD
RxD	RxD
RTS	RTS
CTS	CTS
DTR	DTR
DSR	DSR
SG	SG

External device