



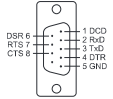

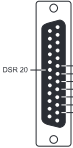
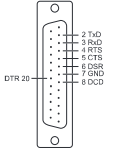






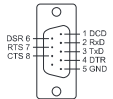
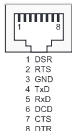
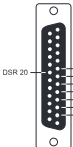
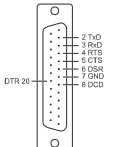
Serial Connection Options

: Serial Board Connection Box/Cable Usage Chart







Serial Board Model Name	Connection Boxes						Connection Cables																
	8-port						8-port						4-port				2-port						
	OPT8-M9	OPT8-RJ45	OPT8A/B/S	OPT8-M9+	OPT8A+/B+/S+	OPT8-RJ45+	CBL-M68M25x8-100 (OPT8C+)	CBL-M68M9x8-100 (OPT8D+)	CBL-M62M25x8-100 (OPT8C)	CBL-M62M9x8-100 (OPT8D)	CBL-M78M25x8-100	CBL-M78M9x8-100	CBL-M44M9x4-50	CBL-M44M9x4-50(POS)	CBL-M44M25x4-50	CBL-M37M9x4-30 (OPT4C)	CBL-M37M9x4-30 (OPT4D)	CBL-F40M9x4-50	CBL-F40M25x4-50	CBL-M25M9x2-50	CBL-F20M9x2-50	CBL-F20M25x2-50	
C218Turbo Series	✓	✓	✓	-	-	-	-	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-
C104H Series	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓	-	-	-	-	-	-	-
CP-114 Series	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓	-	-	-	-	-	-	-
CI-134 Series	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓	-	-	-	-	-	-	-
CP-118U	✓	✓	✓	-	-	-	-	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-
CP-138U	✓	✓	✓	-	-	-	-	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-
CP-168U	✓	✓	✓	-	-	-	-	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-
C168H Series	✓	✓	✓	-	-	-	-	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-
CP-104UL	-	-	-	-	-	-	-	-	-	-	-	✓	-	✓	-	-	-	-	-	-	-	-	-
CP-134U Series	-	-	-	-	-	-	-	-	-	-	-	✓	-	✓	-	-	-	-	-	-	-	-	-
CP-114UL	-	-	-	-	-	-	-	-	-	-	-	✓	-	✓	-	-	-	-	-	-	-	-	-
CP-114UL-I	-	-	-	-	-	-	-	-	-	-	-	✓	-	✓	-	-	-	-	-	-	-	-	-
CP-104EL-A	-	-	-	-	-	-	-	-	-	-	-	✓	-	✓	-	-	-	-	-	-	-	-	-
CP-114EL	-	-	-	-	-	-	-	-	-	-	-	✓	-	✓	-	-	-	-	-	-	-	-	-
CP-114EL-I	-	-	-	-	-	-	-	-	-	-	-	✓	-	✓	-	-	-	-	-	-	-	-	-
CP-112UL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
CP-112UL-I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
CP-132UL Series	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
CP-102UL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
CP-102EL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
CP-132EL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
CP-132EL-I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
CP-118EL-A	-	-	-	✓	✓	✓	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CP-168EL-A	-	-	-	✓	✓	✓	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CP-118U-I	-	-	-	-	-	-	-	-	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-
CP-138U-I	-	-	-	-	-	-	-	-	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-
POS-104UL	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-	-	-	-	-	-	-	-
CA-108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓	-	-	-	-	-
CB-108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓	-	-	-	-	-
CA-114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓	-	-	-	-	-
CB-114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓	-	-	-	-	-

8-port RS-232 Connection Boxes




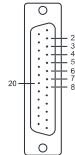
	OPT8-M9	OPT8-RJ45	OPT8A/S	OPT8B
Accessories Image				
Pin Assignment				
Board-side Connector	DB62 male x 1			
Device-side Connector	DB9 male x 8	8-pin RJ45 x 8	DB25 female x 8	DB25 male x 8
LEDs	TxD, RxD indicators for each device-side port	-	TxD, RxD indicators for each device-side port	-
Baudrate	-	-	50 bps to 921.6 Kbps	-
Dimensions	90 x 111 x 27.5 mm (3.5 x 4.3 x 1 in)	152.8 x 32.8 x 32 mm (6 x 1.29 x 1.25 in)	247 x 108 x 35 mm (9.7 x 4.3 x 1.4 in)	-
Protection	-	-	25 KV ESD, 2 KV EFT surge protection (OPT8S only)	-
Connection Cable	DB62 male to DB62 female 150 cm connection cable for connecting to the serial board	-	DB62 male to DB62 male 150 cm connection cable for connecting to the serial board	-
Related Products	See page A-2 for details			

	OPT8-M9+	OPT8-RJ45+	OPT8A+/S+	OPT8B+
Accessories Image				
Pin Assignment				
Board-side Connector	VHDCI 68 x 1			
Device-side Connector	DB9 male x 8	8-pin RJ45 x 8	DB25 female x 8	DB25 male x 8
LEDs	TxD, RxD indicators for each device-side port	-	TxD, RxD indicators for each device-side port	-
Baudrate	-	-	50 bps to 921.6 Kbps	-
Dimensions	90 x 111 x 27.5 mm (3.5 x 4.3 x 1 in)	152.8 x 32.8 x 32 mm (6 x 1.29 x 1.25 in)	247 x 108 x 35 mm (9.7 x 4.3 x 1.4 in)	-
Protection	-	-	25 KV ESD, 2 KV EFT surge protection (Opt8S only)	-
Connection Cable	DB68 male to DB62 female 150 cm connection cable for connecting to the serial board	-	DB68 male to DB62 male 150 cm connection cable for the connecting to the serial board	-
Related Products	See page A-2 for details			



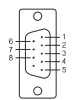
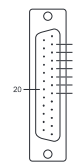
8-port RS-232 connection Cables

CBL-M62M25x8-100 (OPT8C)	CBL-M62M9x8-100 (OPT8D)	CBL-M68M25x8-100 (OPT8C+)	CBL-M68M9x8-100 (OPT8D+)	CBL-M78M25x8-100	CBL-M78M9x8-100
					

2-port Connection Cables

	CBL-F20M9x2-50	CBL-F20M25x2-50																																																																																
Accessories Image																																																																																		
Pin Assignment	 <table border="1"> <thead> <tr> <th>PIN</th> <th>RS-422</th> <th>RS-485-4w</th> <th>RS-485-2w</th> </tr> </thead> <tbody> <tr><td>2</td><td>RxD+(B)</td><td>RxD+(B)</td><td>Data+(B)</td></tr> <tr><td>3</td><td>TxD+(B)</td><td>TxD+(B)</td><td>-</td></tr> <tr><td>4</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>5</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>6</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>7</td><td>GND</td><td>GND</td><td>GND</td></tr> <tr><td>8</td><td>TxD-(A)</td><td>TxD-(A)</td><td>-</td></tr> <tr><td>20</td><td>RxD-(A)</td><td>RxD-(A)</td><td>Data-(A)</td></tr> <tr><td>22</td><td>-</td><td>-</td><td>-</td></tr> </tbody> </table>	PIN	RS-422	RS-485-4w	RS-485-2w	2	RxD+(B)	RxD+(B)	Data+(B)	3	TxD+(B)	TxD+(B)	-	4	-	-	-	5	-	-	-	6	-	-	-	7	GND	GND	GND	8	TxD-(A)	TxD-(A)	-	20	RxD-(A)	RxD-(A)	Data-(A)	22	-	-	-	 <table border="1"> <thead> <tr> <th>PIN</th> <th>RS-422</th> <th>RS-485-4w</th> <th>RS-485-2w</th> </tr> </thead> <tbody> <tr><td>1</td><td>TxD-(A)</td><td>TxD-(A)</td><td>-</td></tr> <tr><td>2</td><td>TxD+(B)</td><td>TxD+(B)</td><td>-</td></tr> <tr><td>3</td><td>RxD+(B)</td><td>RxD+(B)</td><td>Data+(B)</td></tr> <tr><td>4</td><td>RxD-(A)</td><td>RxD-(A)</td><td>Data-(A)</td></tr> <tr><td>5</td><td>GND</td><td>GND</td><td>GND</td></tr> <tr><td>6</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>7</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>8</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>9</td><td>-</td><td>-</td><td>-</td></tr> </tbody> </table>	PIN	RS-422	RS-485-4w	RS-485-2w	1	TxD-(A)	TxD-(A)	-	2	TxD+(B)	TxD+(B)	-	3	RxD+(B)	RxD+(B)	Data+(B)	4	RxD-(A)	RxD-(A)	Data-(A)	5	GND	GND	GND	6	-	-	-	7	-	-	-	8	-	-	-	9	-	-	-
PIN	RS-422	RS-485-4w	RS-485-2w																																																																															
2	RxD+(B)	RxD+(B)	Data+(B)																																																																															
3	TxD+(B)	TxD+(B)	-																																																																															
4	-	-	-																																																																															
5	-	-	-																																																																															
6	-	-	-																																																																															
7	GND	GND	GND																																																																															
8	TxD-(A)	TxD-(A)	-																																																																															
20	RxD-(A)	RxD-(A)	Data-(A)																																																																															
22	-	-	-																																																																															
PIN	RS-422	RS-485-4w	RS-485-2w																																																																															
1	TxD-(A)	TxD-(A)	-																																																																															
2	TxD+(B)	TxD+(B)	-																																																																															
3	RxD+(B)	RxD+(B)	Data+(B)																																																																															
4	RxD-(A)	RxD-(A)	Data-(A)																																																																															
5	GND	GND	GND																																																																															
6	-	-	-																																																																															
7	-	-	-																																																																															
8	-	-	-																																																																															
9	-	-	-																																																																															
Description	20-pin box header to 2-port DB9 male cable	20-pin box header to 2-port DB25 male cable																																																																																
Cable Length	20 cm																																																																																	
Related Products	See page A-2 for details																																																																																	





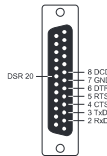
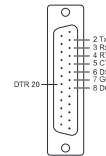
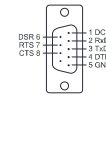
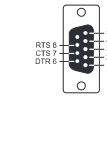
4-port Connection Cables

	CBL-F40M9x4-50	CBL-F40M25x4-50																																																																																																				
Accessories Image																																																																																																						
Pin Assignment	 <table border="1"> <thead> <tr> <th>PIN</th> <th>RS-232</th> <th>RS-422</th> <th>RS-485-4w</th> <th>RS-485-2w</th> </tr> </thead> <tbody> <tr><td>1</td><td>DCD</td><td>TxD-(A)</td><td>TxD-(A)</td><td>-</td></tr> <tr><td>2</td><td>RxD</td><td>TxD+(B)</td><td>TxD+(B)</td><td>-</td></tr> <tr><td>3</td><td>TxD</td><td>RxD+(B)</td><td>RxD+(B)</td><td>Data+(B)</td></tr> <tr><td>4</td><td>DTR</td><td>RxD-(A)</td><td>RxD-(A)</td><td>Data-(A)</td></tr> <tr><td>5</td><td>GND</td><td>GND</td><td>GND</td><td>GND</td></tr> <tr><td>6</td><td>DSR</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>7</td><td>RTS</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>8</td><td>CTS</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>9</td><td>-</td><td>-</td><td>-</td><td>-</td></tr> </tbody> </table>	PIN	RS-232	RS-422	RS-485-4w	RS-485-2w	1	DCD	TxD-(A)	TxD-(A)	-	2	RxD	TxD+(B)	TxD+(B)	-	3	TxD	RxD+(B)	RxD+(B)	Data+(B)	4	DTR	RxD-(A)	RxD-(A)	Data-(A)	5	GND	GND	GND	GND	6	DSR	-	-	-	7	RTS	-	-	-	8	CTS	-	-	-	9	-	-	-	-	 <table border="1"> <thead> <tr> <th>PIN</th> <th>RS-232</th> <th>RS-422</th> <th>RS-485-4w</th> <th>RS-485-2w</th> </tr> </thead> <tbody> <tr><td>2</td><td>TxD</td><td>RxD+(B)</td><td>RxD+(B)</td><td>Data+(B)</td></tr> <tr><td>3</td><td>RxD</td><td>TxD+(B)</td><td>TxD+(B)</td><td>-</td></tr> <tr><td>4</td><td>RTS</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>5</td><td>CTS</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>6</td><td>DSR</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>7</td><td>GND</td><td>GND</td><td>GND</td><td>GND</td></tr> <tr><td>8</td><td>DCD</td><td>TxD-(A)</td><td>TxD-(A)</td><td>-</td></tr> <tr><td>20</td><td>DTR</td><td>RxD-(A)</td><td>RxD-(A)</td><td>Data-(A)</td></tr> <tr><td>22</td><td>-</td><td>-</td><td>-</td><td>-</td></tr> </tbody> </table>	PIN	RS-232	RS-422	RS-485-4w	RS-485-2w	2	TxD	RxD+(B)	RxD+(B)	Data+(B)	3	RxD	TxD+(B)	TxD+(B)	-	4	RTS	-	-	-	5	CTS	-	-	-	6	DSR	-	-	-	7	GND	GND	GND	GND	8	DCD	TxD-(A)	TxD-(A)	-	20	DTR	RxD-(A)	RxD-(A)	Data-(A)	22	-	-	-	-
PIN	RS-232	RS-422	RS-485-4w	RS-485-2w																																																																																																		
1	DCD	TxD-(A)	TxD-(A)	-																																																																																																		
2	RxD	TxD+(B)	TxD+(B)	-																																																																																																		
3	TxD	RxD+(B)	RxD+(B)	Data+(B)																																																																																																		
4	DTR	RxD-(A)	RxD-(A)	Data-(A)																																																																																																		
5	GND	GND	GND	GND																																																																																																		
6	DSR	-	-	-																																																																																																		
7	RTS	-	-	-																																																																																																		
8	CTS	-	-	-																																																																																																		
9	-	-	-	-																																																																																																		
PIN	RS-232	RS-422	RS-485-4w	RS-485-2w																																																																																																		
2	TxD	RxD+(B)	RxD+(B)	Data+(B)																																																																																																		
3	RxD	TxD+(B)	TxD+(B)	-																																																																																																		
4	RTS	-	-	-																																																																																																		
5	CTS	-	-	-																																																																																																		
6	DSR	-	-	-																																																																																																		
7	GND	GND	GND	GND																																																																																																		
8	DCD	TxD-(A)	TxD-(A)	-																																																																																																		
20	DTR	RxD-(A)	RxD-(A)	Data-(A)																																																																																																		
22	-	-	-	-																																																																																																		
Description	40-pin box header to 4-port DB9 male cable	40-pin box header to 4-port DB25 male cable																																																																																																				
Cable Length	50 cm																																																																																																					
Related Products	See page A-2 for details																																																																																																					







8-pin RJ45 to DB9/DB25 Connection Cables

CBL-RJ45F25-150	CBL-RJ45F9-150	CBL-RJ45M25-150	CBL-RJ45M9-150	CBL-RJ45SF25-150	CBL-RJ45SF9-150	CBL-RJ45SM25-150	CBL-RJ45SM9-150
-----------------	----------------	-----------------	----------------	------------------	-----------------	------------------	-----------------

: 10-pin RJ45 to DB9/DB25 Connection Cables

	CN20030	CN20040	CN20060	CN20070
Accessories Image				
Pin Assignment				
Board-side Connector	10-pin RJ45 x 1			
Device-side Connector	DB25 female x 1	DB25 male x 1	DB9 male x 1	DB9 female x 1
Cable Length	150 cm			
Related Products	C320Turbo Series, CP-204J, CI-104J, A52, A53, A60			

: Wiring Kits

	TB-M9	TB-F9	TB-M25	TB-F25	ADP-RJ458P-DB9M	ADP-RJ458P-DB9F
Accessories Image						
Type	DB9 male DIN-Rail wiring terminal	DB9 female DIN-Rail wiring terminal	DM25 male DIN-Rail wiring terminal	DB25 female DIN-Rail wiring terminal	RJ45-to-DB9 adaptor (male)	RJ45-to-DB9 adaptor (female)
Connector	DB9 male	DB9 female	DB25 male	DB25 female	-	-
Rating	300 V, 20 A (IEC250V 10A)				-	-
Operating Temperature	-40 to 105°C (-40 to 221°F)				-	-
Suitable Wiring	24-12 AWG (IEC 0.5-2.5 mm ²)				-	-
Dimensions	77.5 x 45 x 51 mm (3.05 x 1.77 x 2.01 in)		77.5 x 90 x 51 mm (3.05 x 3.54 x 2.01 in)		-	-

: TK-485 Tuning Kit

Pull high/low resistance tuner with termination resistor



Serial Protection

Isolation: 2 KV isolation protection

ESD Protection: ±4 KV protection from ESD due to contact discharge

Power Requirements

Power Input:

- 12 to 48 VDC input through power jack
- ±12 to ±48 VDC input through terminal block, with polarity protection

