

# 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-M66M25x8-100 (OPT8C+)	CBL-M66M9x8-100 (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-F40M25x4-50	CBL-M25M9x2-50	CBL-F20M25x2-50
C218Turbo Series	✓	✓	✓	-	-	-	-	-	✓	✓	-	-	-	-	-	-	-	-	-	-
C104H 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-
CA-134I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-
CB-134I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-
CA-104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-
CA-132	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓
CA-132I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓

## 8-port RS-232 Connection Boxes


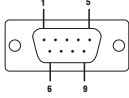
Model Name	OPT8-M9	OPT8-RJ45	OPT8A/S	OPT8B
Accessories Image				
Pin Assignment				
Board-Side Connector	DB62 male x 1			
Device-Side Connector	DB9 male x 8	8-pin RJ45 x 8	DB25 female x 8	DB25 male x 8
LEDs	TxD, RxD indicators for each device-side port	–	TxD, RxD indicators for each device-side port	–
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			

Model Name	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			




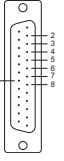
## 8-port RS-232 Connection Cables

Model Name	CBL-M62M25x8-100 (OPT8C)	CBL-M62M9x8-100 (OPT8D)	CBL-M68M25x8-100 (OPT8C+)	CBL-M68M9x8-100 (OPT8D+)	CBL-M78M25x8-100	CBL-M78M9x8-100
Accessories Image						
Pin Assignment						
Board-Side Connector	DB62 male x 1		VHDCI 68 x 1		DB78 male x 1	
Device-Side Connector	DB25 male x 8	DB9 male x 8	DB25 male x 8	DB9 male x 8	DB25 male x 8	DB9 male x 8
Cable Length	100 cm (39.37 in)					
Related Products	See page A-2 for details					









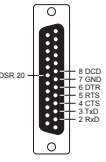

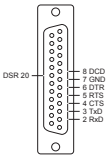
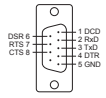
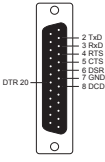

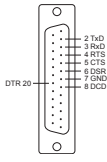
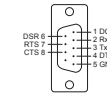
## 2-port Connection Cables

Model Name	CBL-M25M9x2-50																		
Accessories Image																			
Pin Assignment	 <table border="1"> <thead> <tr> <th>PIN</th> <th>RS-232</th> </tr> </thead> <tbody> <tr><td>1</td><td>DCD</td></tr> <tr><td>2</td><td>RxD</td></tr> <tr><td>3</td><td>TxD</td></tr> <tr><td>4</td><td>DTR</td></tr> <tr><td>5</td><td>GND</td></tr> <tr><td>6</td><td>DSR</td></tr> <tr><td>7</td><td>RTS</td></tr> <tr><td>8</td><td>CTS</td></tr> </tbody> </table>	PIN	RS-232	1	DCD	2	RxD	3	TxD	4	DTR	5	GND	6	DSR	7	RTS	8	CTS
PIN	RS-232																		
1	DCD																		
2	RxD																		
3	TxD																		
4	DTR																		
5	GND																		
6	DSR																		
7	RTS																		
8	CTS																		
Description	DB25 male to DB9 male x 2																		
Cable Length	50 cm (19.69 in)																		
Related Products	See page A-2 for details																		

## 4-port Connection Cables

Model Name	CBL-M44M9x4-50	CBL-M44M25x4-50																																																																																																				
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	DB44 male to DB9 male x4	DB44 male to DB25 male x4																																																																																																				
Cable Length	50 cm (19.69 in)																																																																																																					
Related Products	See page A-2 for details																																																																																																					

## 8-pin RJ45 to DB9/DB25 Connection Cables

Model Name	CBL-RJ45F25-150	CBL-RJ45F9-150	CBL-RJ45M25-150	CBL-RJ45M9-150	CBL-RJ45SF25-150	CBL-RJ45SF9-150	CBL-RJ45SM25-150	CBL-RJ45SM9-150
Accessories Image								
Pin Assignment								
Cable Type	-	-	-	-	Shielded	-	-	-
Board-Side Connector	8-pin RJ45 x 1							
Device-Side Connector	DB25 female x 1	DB9 female x 1	DB25 male x 1	DB9 male x 1	DB25 female x 1	DB9 female x 1	DB25 male x 1	DB9 male x 1
Cable Length	150 cm (59.06 in)							
Related Products	CP-104JU, OPT8-RJ45, NPort 5210, NPort 5600, NPort 6600, CN2510/2600							

## 10-pin RJ45 to DB9/DB25 Connection Cables

Model Name	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 (59.06 in)			
Related Products	C320Turbo Series, A52, A53			

## Wiring Kits

Model Name	TB-M9	TB-F9	TB-M25	TB-F25
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
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 <sup>2</sup> )			
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)	

Model Name	Mini DB9F-to-TB	ADP-RJ458P-DB9M	ADP-RJ458P-DB9F	A-ADP-RJ458P-DB9F-ABC01																																																																		
Accessories Image																																																																						
Pin Assignment	<table border="1"> <thead> <tr> <th>DB9-F</th> <th>TB</th> </tr> </thead> <tbody> <tr><td>1</td><td>2</td></tr> <tr><td>2</td><td>1</td></tr> <tr><td>3</td><td>3</td></tr> <tr><td>4</td><td>4</td></tr> <tr><td>5</td><td>5</td></tr> </tbody> </table>	DB9-F	TB	1	2	2	1	3	3	4	4	5	5	<table border="1"> <thead> <tr> <th>DB9-M</th> <th>RJ45</th> </tr> </thead> <tbody> <tr><td>1</td><td>6</td></tr> <tr><td>2</td><td>5</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td>4</td><td>8</td></tr> <tr><td>5</td><td>3</td></tr> <tr><td>6</td><td>1</td></tr> <tr><td>7</td><td>2</td></tr> <tr><td>8</td><td>7</td></tr> </tbody> </table>	DB9-M	RJ45	1	6	2	5	3	4	4	8	5	3	6	1	7	2	8	7	<table border="1"> <thead> <tr> <th>DB9-F</th> <th>RJ45</th> </tr> </thead> <tbody> <tr><td>1</td><td>6</td></tr> <tr><td>2</td><td>4</td></tr> <tr><td>3</td><td>5</td></tr> <tr><td>4</td><td>1</td></tr> <tr><td>5</td><td>3</td></tr> <tr><td>6</td><td>8</td></tr> <tr><td>7</td><td>7</td></tr> <tr><td>8</td><td>2</td></tr> </tbody> </table>	DB9-F	RJ45	1	6	2	4	3	5	4	1	5	3	6	8	7	7	8	2	<table border="1"> <thead> <tr> <th>DB9</th> <th>RJ45</th> </tr> </thead> <tbody> <tr><td>1</td><td>6</td></tr> <tr><td>2</td><td>5</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td>4</td><td>8</td></tr> <tr><td>5</td><td>7</td></tr> <tr><td>6</td><td>1</td></tr> <tr><td>7</td><td>2</td></tr> <tr><td>8</td><td>7</td></tr> </tbody> </table>	DB9	RJ45	1	6	2	5	3	4	4	8	5	7	6	1	7	2	8	7
DB9-F	TB																																																																					
1	2																																																																					
2	1																																																																					
3	3																																																																					
4	4																																																																					
5	5																																																																					
DB9-M	RJ45																																																																					
1	6																																																																					
2	5																																																																					
3	4																																																																					
4	8																																																																					
5	3																																																																					
6	1																																																																					
7	2																																																																					
8	7																																																																					
DB9-F	RJ45																																																																					
1	6																																																																					
2	4																																																																					
3	5																																																																					
4	1																																																																					
5	3																																																																					
6	8																																																																					
7	7																																																																					
8	2																																																																					
DB9	RJ45																																																																					
1	6																																																																					
2	5																																																																					
3	4																																																																					
4	8																																																																					
5	7																																																																					
6	1																																																																					
7	2																																																																					
8	7																																																																					
Description	DB9 female to terminal block adapter for RS-422/485 applications	RJ45-to-DB9 male adapter	RJ45-to-DB9 female adapter	RJ45-to-DB9 female adapter																																																																		
Operating Temperature	0 to 70°C (32 to 158°F)	-15 to 70°C (5 to 158°F)	-15 to 70°C (5 to 158°F)	0 to 70°C (32 to 158°F)																																																																		
Dimensions																																																																						