

- Mating Connectors Suitable for Double Stacking
- Cable Assemblies
- Connector Blocks
- Guaranteed Compatibility



Simple Connection

Pickering connection solutions provide a simple way of connecting to a user's device under test or remote connection. The products include cable assemblies, cable connectors, and connector blocks.

Cable Assemblies

Cable assemblies are offered in connector to connector, and connector to unterminated versions. There are 3 termination options for the unterminated cables - ferrules, tinned copper or simple cut end.

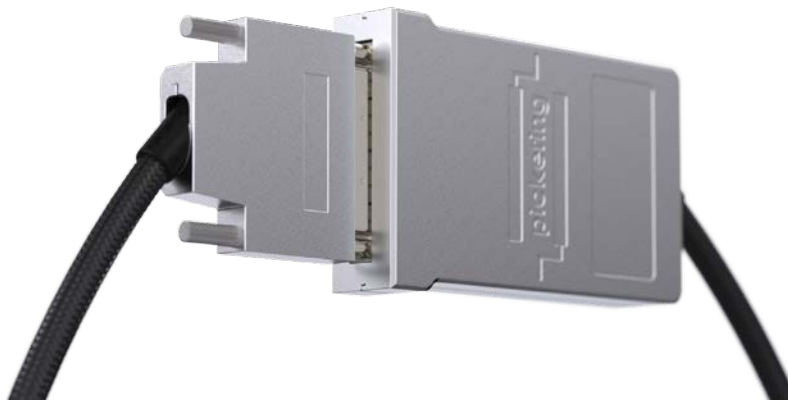
Cable Assemblies

Connector Blocks convert the 68-pin 0.8 mm Pitch VHDCI connections to an array of screw terminals. The customer can then interface to other devices using his own wiring.

Custom Design Needs

Pickering Interfaces can manufacture custom connector accessories to suit any application. If you do not see what you need in this data sheet contact your Pickering Interfaces sales office with information on your requirements or consider using our free online Cable Design Tool.

Using our Cable Design Tool, you can graphically design your own custom cable assembly. Once completed and submitted, our engineers will generate a quote for your cable requirements. See pickeringtest.com/cdt





Example of Connection Between Male and Female 68-Pin VHDCI Connectors



Accessories

Although the items below do not directly mate with Pickering Interfaces products, customers may find them useful in the development of their own connection solutions.

Cable Assemblies

Description		End 1	End 2		Cable Length	Product Order Code and Part Number	Data Sheet Page
		Gender & Cable Exit	Gender & Cable Exit	Options			
	Cable Assy, 68-Pin 0.8 mm Pitch VHDCI, 0.5 A.	Male, Rear Cable Exit	Male, Rear Cable Exit	-	0.5 m 1 m 2 m	A068VMR-068VMR-6C050 A068VMR-068VMR-6C100 A068VMR-068VMR-6C200	3
	Cable Assy, 68-Pin 0.8 mm Pitch VHDCI to Unterminated, 0.5 A.	Male, Rear Cable Exit	NA	Ferrules	0.5 m 1 m 2 m	A068VMR-F-6C050 A068VMR-F-6C100 A068VMR-F-6C200	4
				Tinned End	0.5 m 1 m 2 m	A068VMR-T-6C050 A068VMR-T-6C100 A068VMR-T-6C200	
				Cut End	0.5 m 1 m 2 m	A068VMR-C-6C050 A068VMR-C-6C100 A068VMR-C-6C200	
Note: Custom lengths by quotation							

Connector Blocks/Connectors

Description		Gender & Cable Exit	Type	Product Order Code and Part Number	Page
	Shielded Connector Block, 68-Pin 0.8 mm Pitch VHDCI, 0.5 A, Screw Terminal.	Female, Rear Cable Exit	With Backshell	B068VFR-6F-0A	6
			Without Backshell	B068VFX-6F-0A	
	Cable Connector, Slimline, 68-Pin 0.8 mm Pitch VHDCI, 2 A, Soldered Connection	Male, Rear Cable Exit	With Backshell	C068VMR-6SB-6A	8

Appendix

Details of recent part number changes..... [9](#)

Custom Termination

Customization Possibilities [11](#)

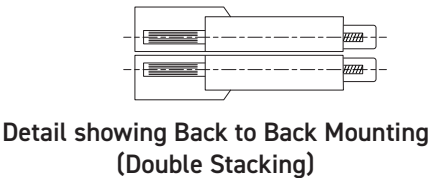
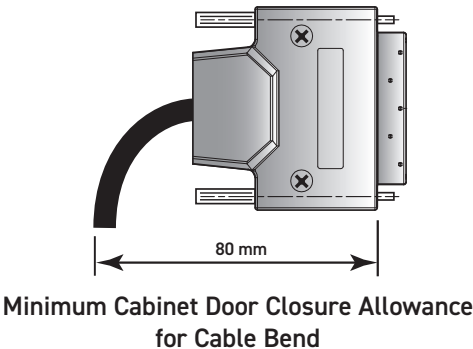
Please click on the page number to navigate to the data sheet page required. Return to this page via the [C](#) button.

- High Specification, Highly Flexible Cable
- Fully Screened Cable Construction with Strain Relief
- Slimline Connectors Suitable for Double Stacking

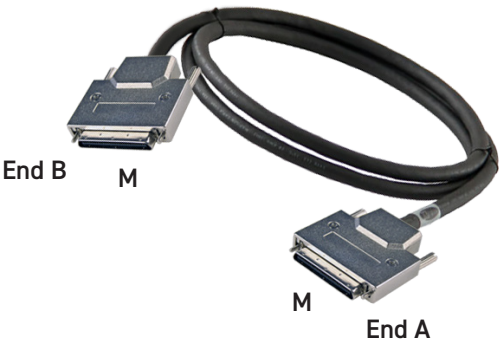
The male cable assembly is suitable for direct connection to various products using the 68-Pin 0.8 mm Pitch VHDCI connector.

Technical Specification

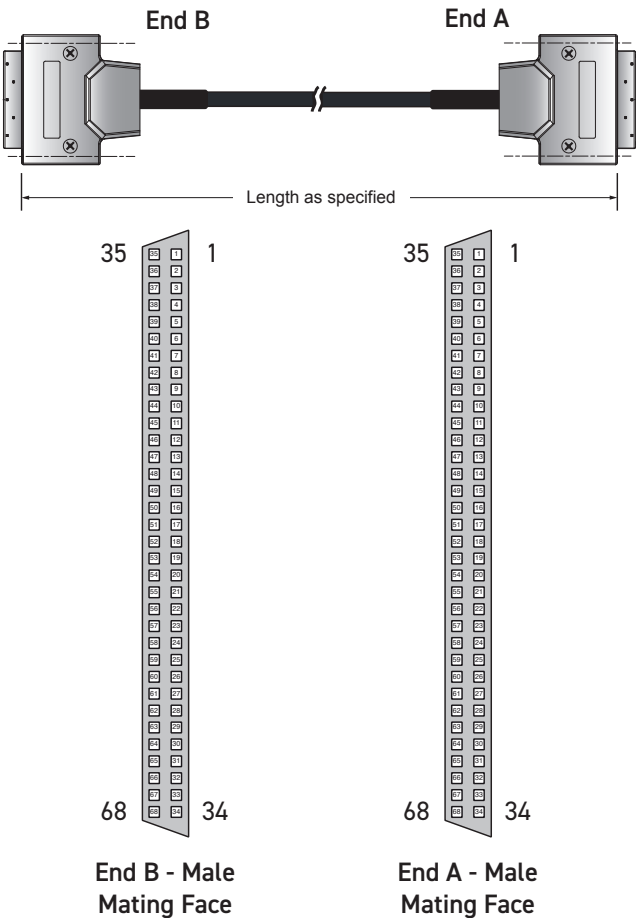
Connector Type (End A):	68-Pin 0.8 mm Pitch VHDCI Slimline
Gender	Male
Securing Method	M2 screwlocks, male
Connector Type (End B):	68-Pin 0.8 mm Pitch VHDCI Slimline
Gender	Male
Securing Method	M2 screwlocks, male
Maximum Current	0.5 A
Maximum Voltage	30 VAC
Insulation Resistance	Cable 1x10 ¹⁰ Ohm/3 m
Connectors:	
Contact Material	Gold plated copper alloy
Contact Resistance	50 mOhm
Cable Exit	Rear
Overall Size (Approx)	H43.6 x W9.4 x D39.6 mm
Cable Type:	Multipaired. 68-Pin twisted pair. Wires are paired 1 & 2, 3 & 4, etc.
Conductor: Material	Tinned stranded copper
Strands	7/36AWG (28AWG)
Insulation	PVC
Outer Sleeve	PVC
Screened Construction	Dual screened (Cable screens connected to backshells)
Additional Braided Sleeve	No
Cable O/D	9.1 mm
Minimum Bend Radius	25 mm
Door Closure Allowance	80 mm (see diagram)



This Cable Assembly is Not Suitable for Connection to a Pickering Switching Product



68-Pin VHDCI Cable Assy - Male to Male



Product Order Codes

- 68-Pin 0.8 mm Pitch VHDCI Cable Assy, 0.5 A, Male to Male,
- 0.5 m Long [A068VMR-068VMR-6C050](#)
 - 1.0 m Long [A068VMR-068VMR-6C100](#)
 - 2.0 m Long [A068VMR-068VMR-6C200](#)

Note: Other cable lengths can be supplied.

- High Specification, Highly Flexible Cable
- Fully Screened Cable Construction with Strain Relief
- Slimline Connectors Suitable for Double Stacking
- Wires Color Coded to Ensure Easy Connection

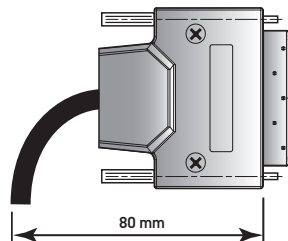
The male cable assembly is suitable for direct connection to various products using the 68-Pin 0.8 mm Pitch VHDCI connector and is constructed from 68-Pin twisted pair ribbon cable.

When using this product please ensure appropriate electrical safety precautions are observed.

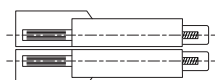
Technical Specification

Connector Type (End A):	68-Pin 0.8 mm Pitch VHDCI Slimline
Gender	Male
Securing Method	M2 screwlocks, male
Unterminated End (End B):	
Wire End Options	Ferrules, Tinned, Cut End
Free Wire Length	130 mm nominal (Not cut end)
Individual Wire Labelling	To connector pins. A white/black screen pigtail is included for ferrule/tinned versions
Maximum Current	0.5 A
Maximum Voltage	30 VAC
Insulation Resistance	Cable 1×10^{10} Ohm/3 m
Connector:	
Contact Material	Gold plated copper alloy
Contact Resistance	50 mOhm
Cable Exit	Rear
Overall Size (Approx)	H43.6 x W9.4 x D39.6 mm
Cable Type:	Multipaired. 68-Pin twisted pair.
Conductor: Material	Tinned stranded copper
Strands	7/36AWG (28AWG)
Insulation	PVC
Outer Sleeve	PVC
Screened Construction	Dual screened (Cable screens connected to backshells)
Additional Braided Sleeve	No
Cable O/D	9.1 mm
Minimum Bend Radius	25 mm
Door Closure Allowance	80 mm (see diagram)

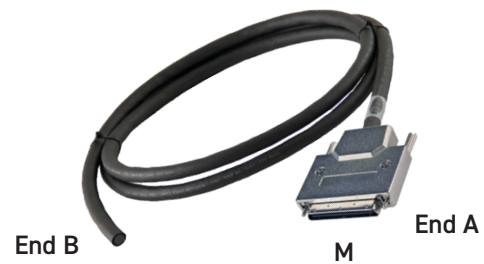
Minimum Cabinet Door Closure Allowance for Cable Bend



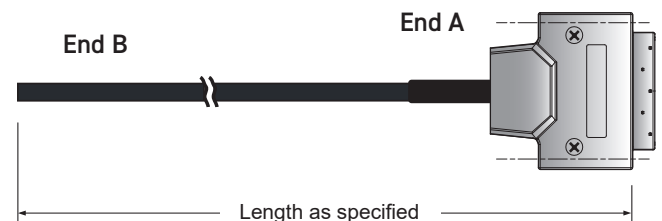
Detail showing Back to Back Mounting (Double Stacking)



This Cable Assembly is Not Suitable for Connection to a Pickering Switching Product

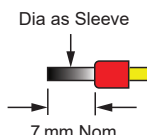


68-Pin VHDCI Cable Assy - Male to Unterminated



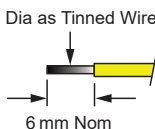
End B Options

Ferrules

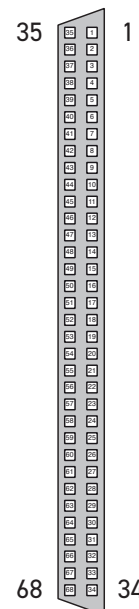
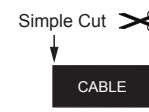


Soldered or Crimped Construction

Tinned End



Cut End



End A - Male Mating Face

Note: Wiring Schedule information can be found on the following page.

Product Order Codes

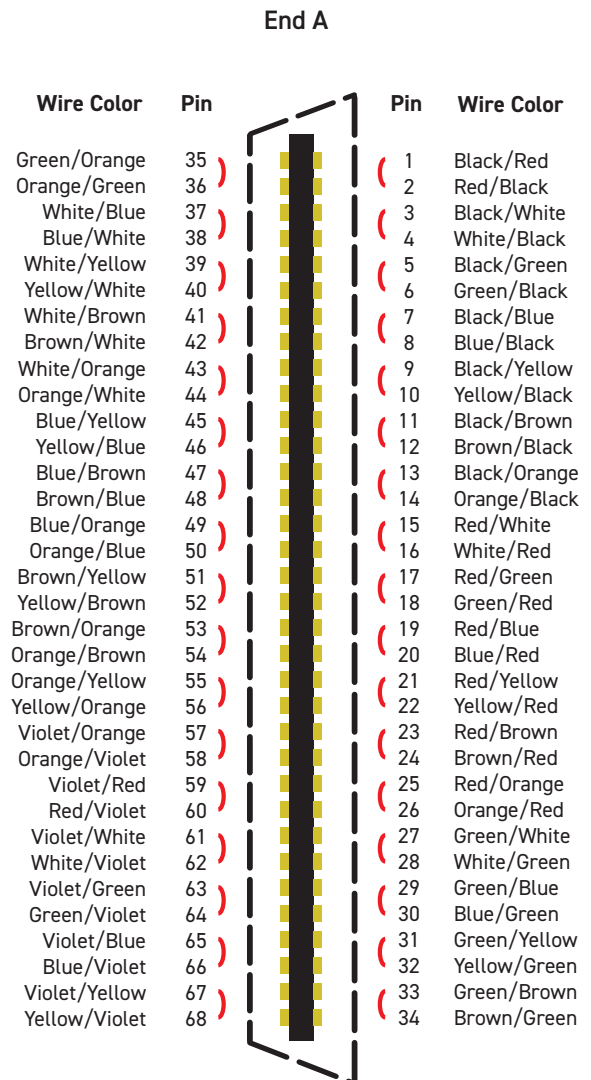
68-Pin 0.8 mm Pitch VHDCI Cable Assy, 0.5 A, Male to Unterminated,

End B:	A068VMR-*~6C***	Cable Length:
F = Ferrules		050 = 0.5 m
T = Tinned End		100 = 1.0 m
C = Cut End		200 = 2.0 m

Note: Other cable lengths can be supplied.

68-Pin 0.8 mm Pitch VHDCI Cable Assy - Male to Untermated

Pin No	Wire Color	Pin No	Wire Color
35	Green/Orange	1	Black/Red
36	Orange/Green	2	Red/Black
37	White/Blue	3	Black/White
38	Blue/White	4	White/Black
39	White/Yellow	5	Black/Green
40	Yellow/White	6	Green/Black
41	White/Brown	7	Black/Blue
42	Brown/White	8	Blue/Black
43	White/Orange	9	Black/Yellow
44	Orange/White	10	Yellow/Black
45	Blue/Yellow	11	Black/Brown
46	Yellow/Blue	12	Brown/Black
47	Blue/Brown	13	Black/Orange
48	Brown/Blue	14	Orange/Black
49	Blue/Orange	15	Red/White
50	Orange/Blue	16	White/Red
51	Brown/Yellow	17	Red/Green
52	Yellow/Brown	18	Green/Red
53	Brown/Orange	19	Red/Blue
54	Orange/Brown	20	Blue/Red
55	Orange/Yellow	21	Red/Yellow
56	Yellow/Orange	22	Yellow/Red
57	Violet/Orange	23	Red/Brown
58	Orange/Violet	24	Brown/Red
59	Violet/Red	25	Red/Orange
60	Red/Violet	26	Orange/Red
61	Violet/White	27	Green/White
62	White/Violet	28	White/Green
63	Violet/Green	29	Green/Blue
64	Green/Violet	30	Blue/Green
65	Violet/Blue	31	Green/Yellow
66	Blue/Violet	32	Yellow/Green
67	Violet/Yellow	33	Green/Brown
68	Yellow/Violet	34	Brown/Green



68-Pin VHDCI Male Connector (Mating Face)

- Note 1.** — Denotes Twisted Pairing. i.e. Pins 1 & 2 use paired wires
 2. The cable screen is connected to the connector backshell at End A
 3. A white/black insulated screen pigtail is included at the Untermated End for Ferrule/Tinned versions

- Connector, PCB and Backshell
- Cable Clamp in Backshell
- Easy to Use Rising Cage Screw Terminals

Connector blocks provide a convenient method of termination without the use of custom cabling. However, a higher resistance path, lower capacity ratings and lower voltage ratings are typical.

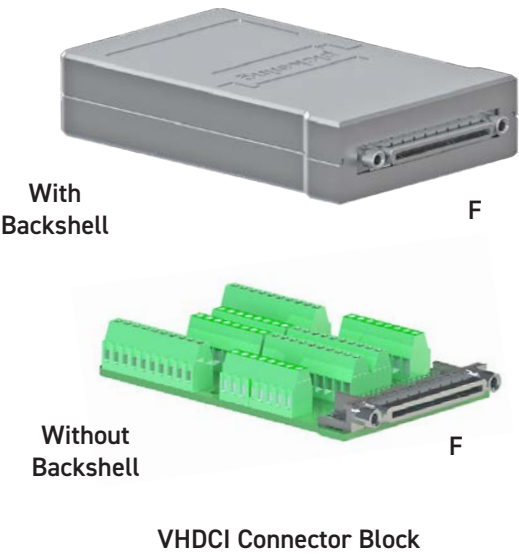
The screw terminals use a rising cage clamp mechanism to minimize risk of copper strand breakage. The metal shell includes an internal insulation barrier under the carrier board.

When this product is used without a backshell users should make their own cable strain relief arrangements and ensure appropriate electrical safety precautions are observed.

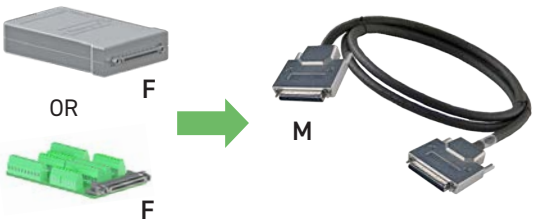
Technical Specification

Connector Type:	68-Pin 0.8 mm Pitch VHDCI
Gender	Female
Securing Method:	
Product with Backshell	M2 screwlocks, female
Product without Backshell	M2 screwlocks, female
Wire Connection	Rising cage screw terminals. Soldered screen (GND) connections are provided
Connector Block Ratings:	
Maximum Current	0.5 A
Maximum Voltage	30 VAC
Cable Exit	Rear - 10.1 x 30 mm
Overall Size (Approx)	H54 x W17.8 x D88.5 mm
68-Pin 0.8mm Pitch VHDCI:	
Contact Material	Gold plated copper alloy
Contact Resistance	50 mOhm
Screw Terminals:	
Maximum Wire Size	20AWG
Recommended Insulation	PTFE
Additional Cable Clamp	Yes (in backshell)

This Connector Block is Not Suitable for Connection to a Pickering Switching Product



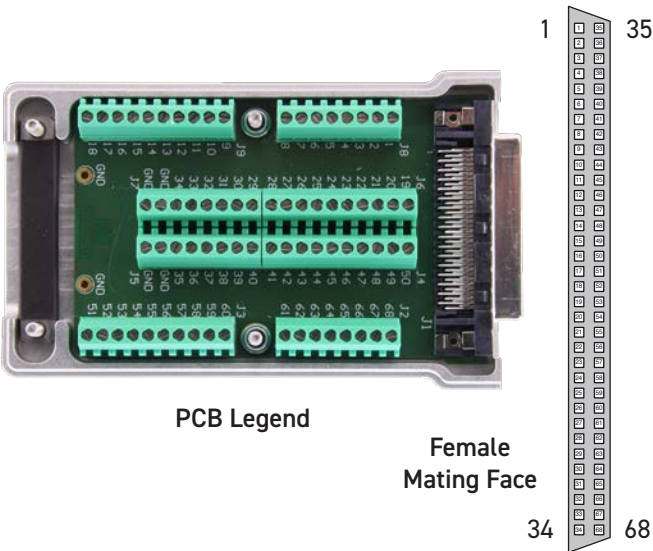
Product Compatibility



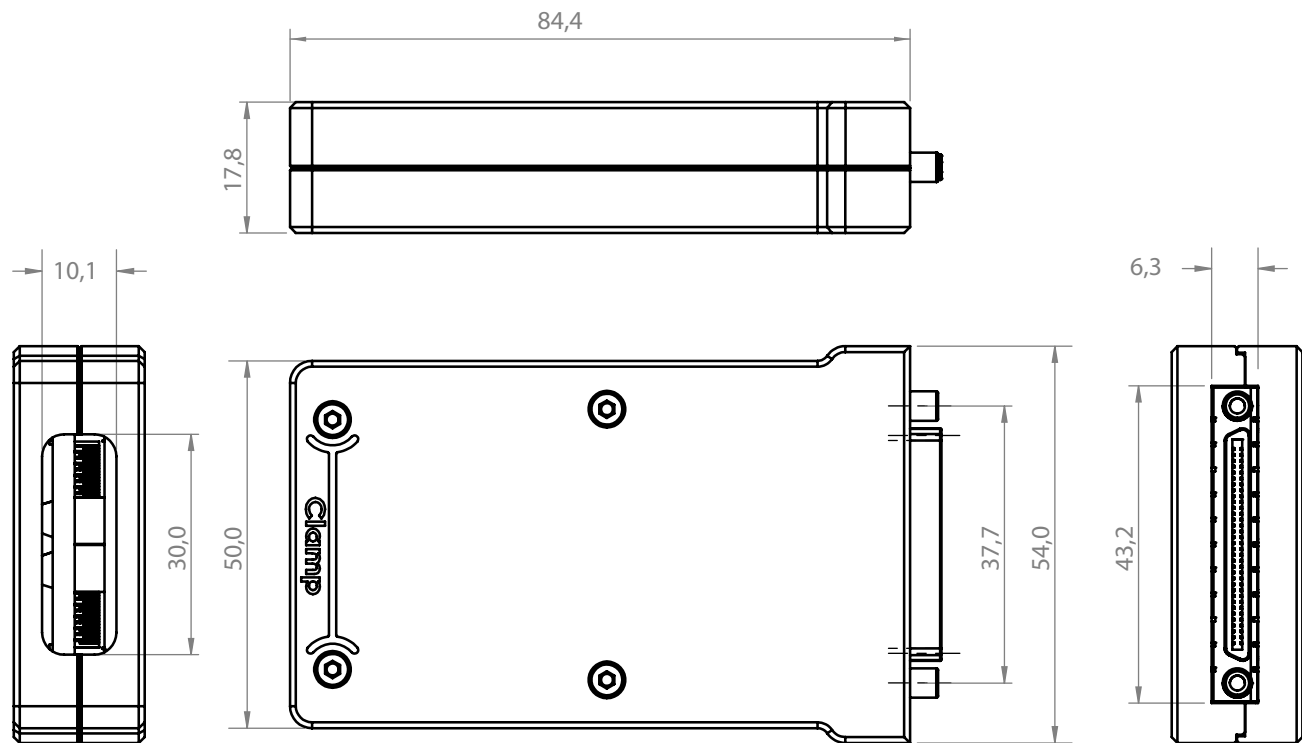
Note: A dimensional drawing can be found on the following page.

Product Order Codes

68-Pin 0.8 mm Pitch VHDCI Shielded Connector Block, 0.5 A, Screw Terminal, With Backshell, Female	B068VFR-6F-0A
Screw Terminal, No Backshell, Female	B068VFX-6F-0A



68-Pin 0.8 mm Pitch VHDCI Connector Block - B068VFR-6F-0A



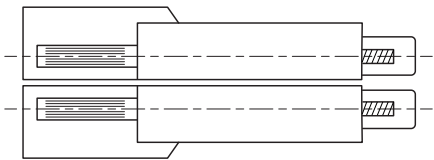
- Connector and Backshell
- Slimline Connector for Double Stacking
- Cable Clamp in Backshell
- Soldered Cable Termination

This accessory is designed to allow users to directly terminate a cable with soldered connections to the 68-Pin 0.8 mm Pitch VHDCI connector and to mount the connectors back to back when necessary .

It is difficult to terminate cable to the 68-Pin 0.8 mm Pitch VHDCI connector because of the high density and fine pitch. Pickering Interfaces recommends the use of purchased cable assemblies for applications where most or all of the contacts are in use.

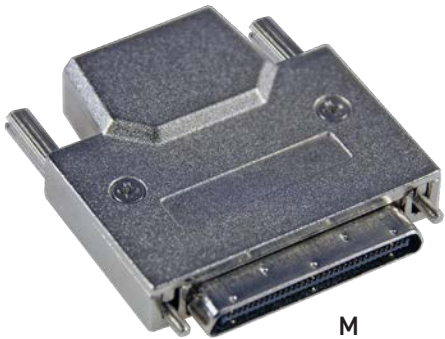
Technical Specification

Connector Type:	68-Pin 0.8 mm Pitch VHDCI, Slimline
Gender	Male
Securing Method:	M2 screwlocks, male
Wire Connection	Slimline (solder)
Connector Ratings:	
Maximum Current	2 A
Maximum Voltage	30 VAC
Cable Exit:	Rear
Cable Exit Size	12.7 x 6.7 mm (Rounded)
Overall Size (Approx)	H43.6 x W10 x D46 mm
68-Pin 0.8 mm Pitch VHDCI:	
Contact Material	Gold flash over nickel plated brass
Wire Connection:	
Maximum Wire Size	24AWG
Recommended Insulation	PVC
Additional Cable Clamp	Yes (in backshell). This clamp can also be used as a cable screen connection

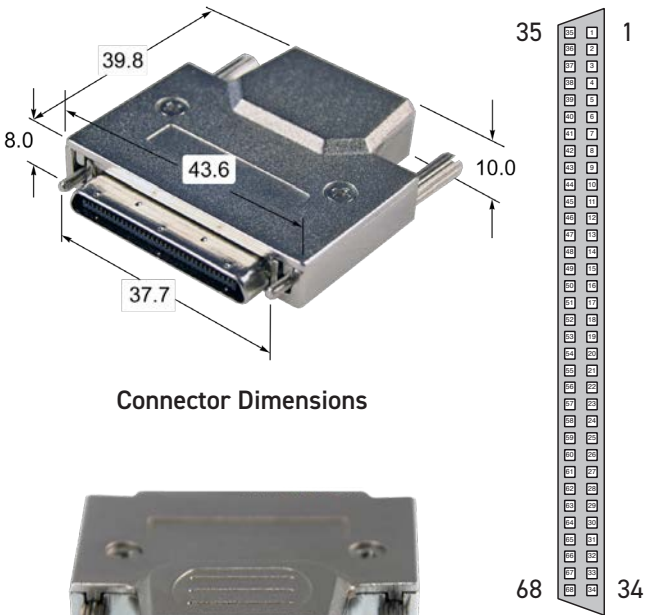


Detail showing Back to Back Mounting (Double Stacking)

This Connector is Not Suitable for Connection to a Pickering Switching Product



VHDCI Cable Connector - Male



Connector Dimensions



Rear View

Male Mating Face

Product Order Codes

68-Pin 0.8 mm Pitch VHDCI Connector, Slimline, 2 A, Soldered, (These connectors can be double stacked if necessary)
Connector, With Backshell, Male [C068VMR-6SB-6A](#)



Appendix

This appendix gives details of recent part number changes.

ECN1756 Dated 5th August 2022

This Change Note covered a change to the multicore cable used in the cable assemblies. The individual wires have changed from 7/38 (30AWG) to 7/36 (28AWG) and a different color coding is used. The existing multicore cable had become obsolete.

Items that changed and the corresponding updated part numbers are detailed below:

Product changes in data sheet order		Data Sheet 90-020D Issue 5.3 Jul 2022	Data Sheet 90-020D Issue 6.0 Aug 2022
		Product Part Numbers	Product Part Numbers
	Cable Assy, 68-Pin 0.8 mm Pitch VHDCI, 0.5 A, Male to Male	A068VMR-068VMR-6B050	A068VMR-068VMR-6C050
		A068VMR-068VMR-6B100	A068VMR-068VMR-6C100
		A068VMR-068VMR-6B200	A068VMR-068VMR-6C200
	Cable Assy, 68-Pin 0.8 mm Pitch VHDCI, 0.5 A, Male to Unterminated (Ferrules)	A068VMR-F-6B050	A068VMR-F-6C050
		A068VMR-F-6B100	A068VMR-F-6C100
		A068VMR-F-6B200	A068VMR-F-6C200
	Cable Assy, 68-Pin 0.8 mm Pitch VHDCI, 0.5 A, Male to Unterminated (Tinned End)	A068VMR-T-6B050	A068VMR-T-6C050
		A068VMR-T-6B100	A068VMR-T-6C100
		A068VMR-T-6B200	A068VMR-T-6C200
	Cable Assy, 68-Pin 0.8 mm Pitch VHDCI, 0.5 A, Male to Unterminated (Cut End)	A068VMR-C-6B050	A068VMR-C-6C050
		A068VMR-C-6B100	A068VMR-C-6C100
		A068VMR-C-6B200	A068VMR-C-6C200

Custom Termination

Pickering Interfaces are able to manufacture custom built cable assemblies and backshells that mate with all the connectors we use in our extensive product range and to provide connection solutions for third party products.

We are able to model and manufacture cable assemblies and other termination arrangements to user notes and drawings, and to deal with simple and complex assemblies, and both small and high volume orders.

All products are designed to ensure easy and problem free connection.

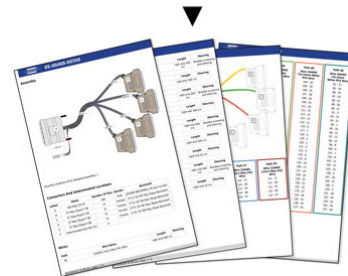
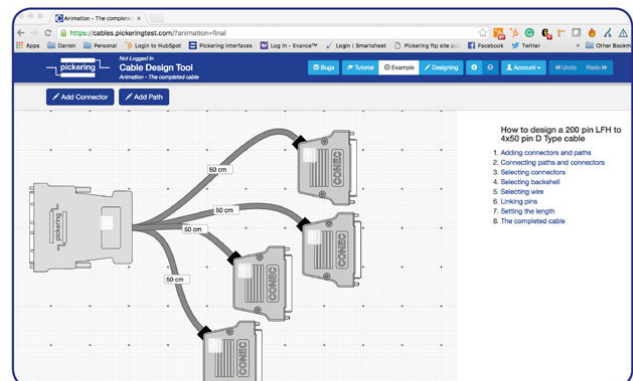
We offer a fast turn round of custom items to keep your ordering and integration time scales to a minimum.



Pickering's Cable Design Tool

Our Cable Design Tool is an online tool that allows you to define a cable assembly to exactly meet your requirements.

- Graphical design of customized cable assemblies
- Built-in library of standard cable sets can be used as the basis for customization, or cables can be defined from scratch
- The ability to store cable assemblies in the Cloud and develop them over time
- Each cable design has a PDF documentation file detailing all the specifications
- Allows detailed design including; connector types, wire type, pin definitions, pin & cable labelling, cable bundling, length selection, sleeving, comments, etc.
- Add your own connectors and wires
- Fully supported on major tablet operating systems



Because the Cable Design Tool is a web-based tool, we will continually update it to better accommodate your requirements and features. Your data is not trapped; complete details of the design are always available to the user at any time via the documentation or spreadsheet file. Once a cable is designed, you can submit it to us for quotation.

For more information visit: pickeringtest.com/cdt