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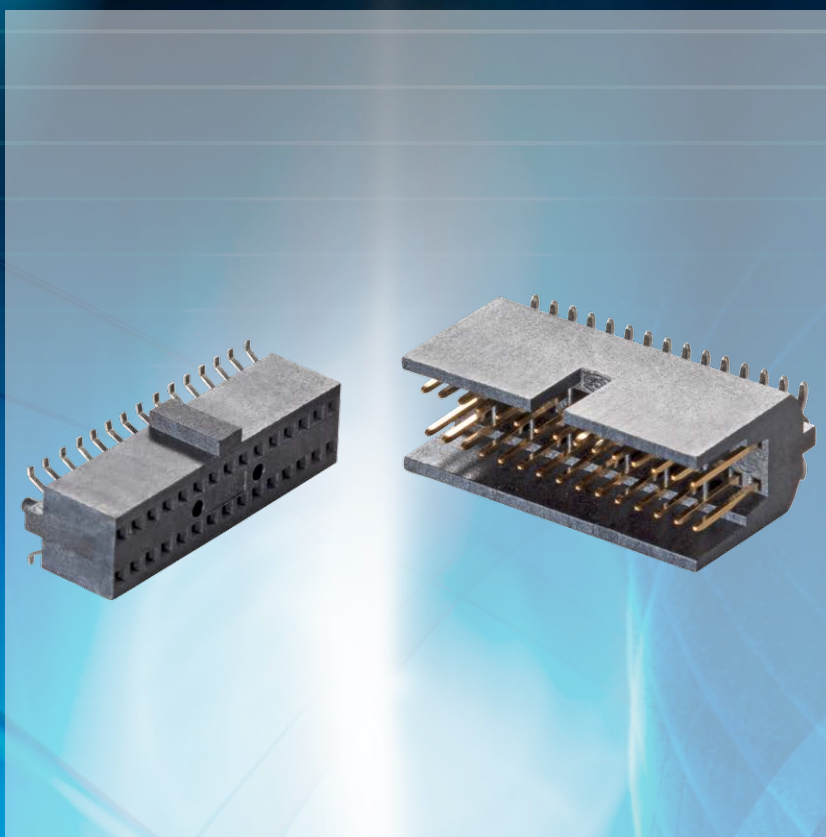
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ODU MINI-CARD®

ODU PCB Connectors



Contents

Chapter		From page	
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2	Pin headers, Series 515	8	

Description:

With the most compact dimensions and maximum performance, ODU MINI-CARD® sets up the optimal connection between boards, for both THT and SMT soldering. The two guiding pins moulded on to the insulator simplify the centring during assembly and absorb the PCB's horizontal mechanical forces.

**Board-to-board connector,
pitch 1.27 × 2.54 mm.**

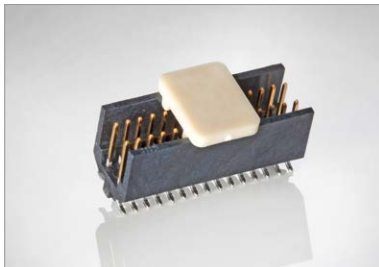
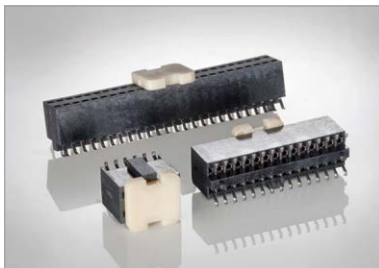
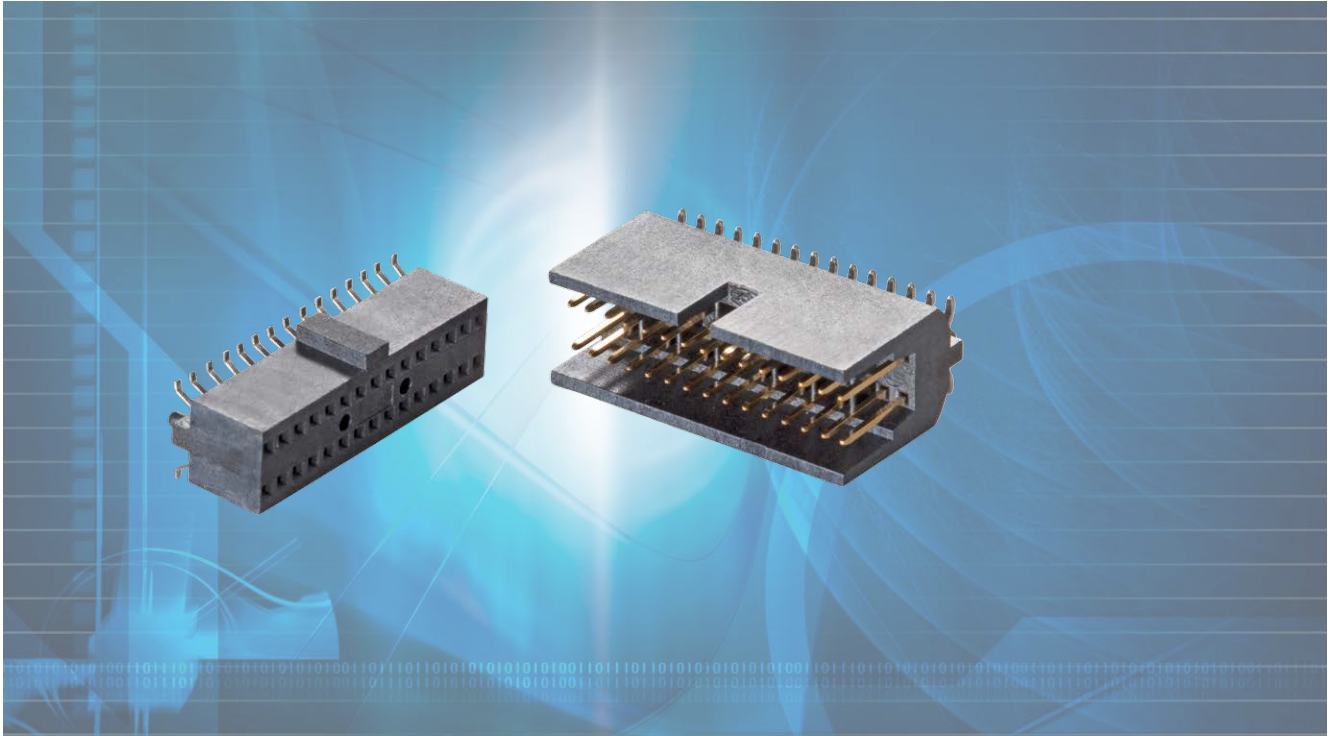
Features:

- Detachable connection using pin and female headers
- 2-row
- 12, 16, 30, 40 and 50 contacts
- Pin headers: 2 THT and 5 SMT models
- Female headers in SMT termination technology
- Fully automatic placement (pick-and-place) in the SMT versions using vacuum adapter plate and tape-and-reel packaging

All dimensions in mm.
Some of the pictures are illustrations.
Errors and omissions excepted.

Issue: 2014-03

ODU MINI-CARD®
Female headers
Series 525

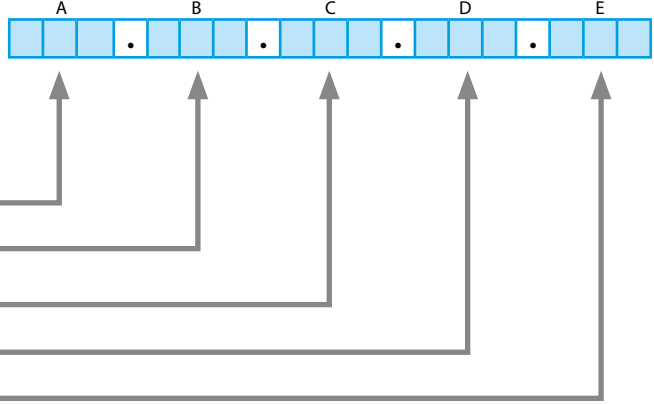


Contents

Female headers for Series 525

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1	Number key for ODU MINI-CARD®, Series 525	5	
2	Technical data	6	
3	SMT female headers	7	

Explanation of number codes for ODU MINI-CARD®, Series 525

No.	Meaning	Coding	
A	Series	525 = Female headers	
B	Type	026 = SMT version (not stackable) 031 = SMT version (stackable)	
C	Surface	035 = In mating area 0.75 µm Au on Ni, in termination area 2.0 µm Sn on Ni	
D	Number of contacts	012 = 12 contacts (example)	
E	Packaging	002 = Tube 050 = Tape-and-reel	

Ordering example for Series 525

A			B				C				D			E				
5	2	5	.	0	3	1	.	0	3	5	.	0	1	2	.	0	0	2

- A = Series: 525 Female headers
 B = Type: SMT version (stackable)
 C = Surface: In mating area 0.75 µm Au on Ni
 in termination area 2.0 µm Sn on Ni
 D = Number of contacts: 12 contacts
 E = Packaging: Tube

ODU MINI-CARD® female headers, Series 525

Technical data

Electrical specification

Contact resistance:	$\leq 6 \text{ m}\Omega$
Test voltage:	500 V eff.
Operating voltage:	30 V
Nominal current: (single contact at 25 °C)	0.5 A
Insulation resistance	$\geq 1 \text{ G}\Omega$

Mechanical specification

Operating temperature:	-40 °C to +125 °C
SMT solder temperature at solder point max. 30 s:	260 °C
Humidity level:	75 % rel. humidity in accordance with DIN EN 60721-3-3
Mating force per contact:	< 0.18 N
Mating cycles:	> 100

Material and surface plating

Contact surface	
Mating area:	0.75 μm Au on 1.25 μm Ni
Termination area:	2.0 μm Sn on 1.25 μm Ni
Insulator material:	LCP black GF acc. to UL 94 V-0
Contact material:	Sockets: Be-Cu alloy

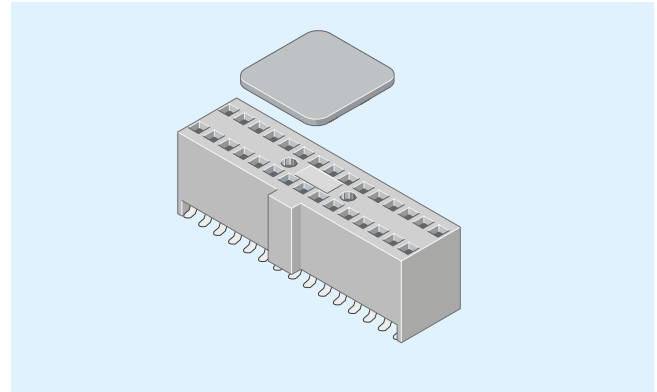
ODU MINI-CARD® SMT female header

2-row, straight, in pitch 1.27 × 2.54 mm

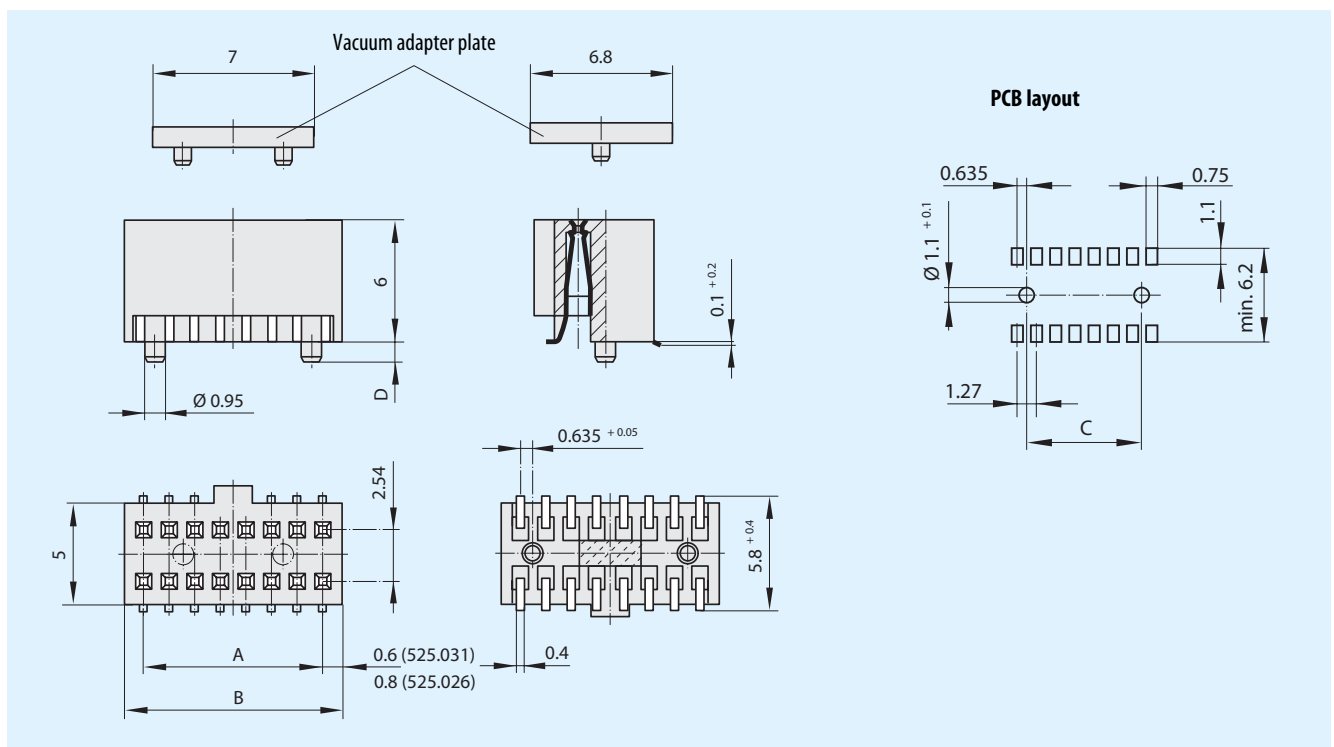
Features

- Component height 6.0 mm
- 525.031: fully stackable without contact loss
- SMT female header for board-to-board connection
- Vacuum adapter plate
- 2 moulded-on guiding pins

Technical data, see page 6.



Dimensional drawing (schematic)

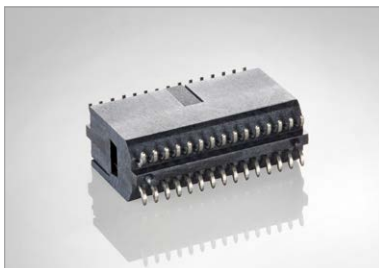
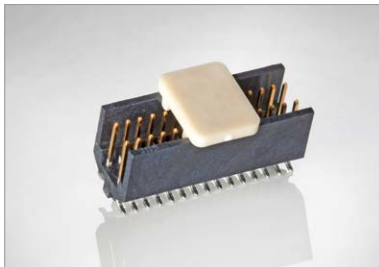
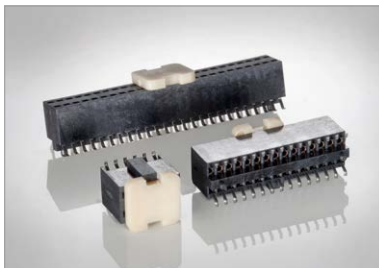
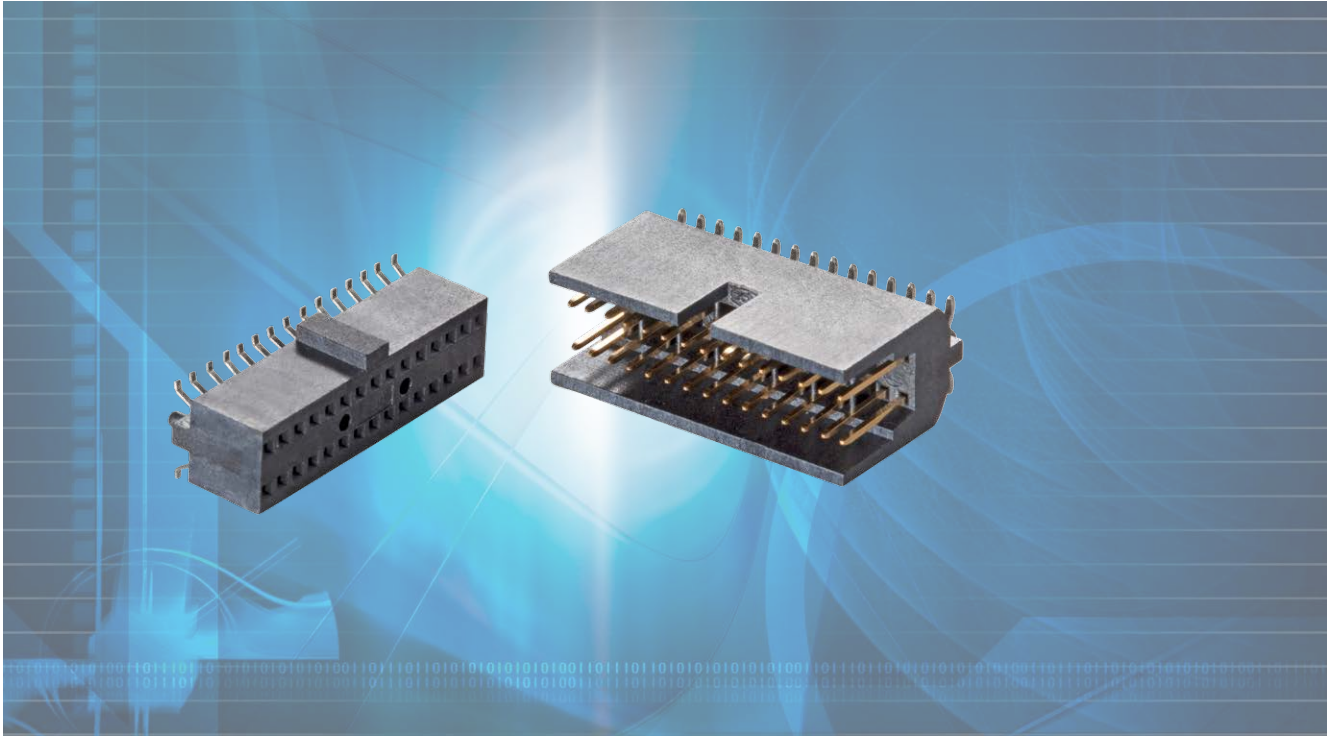


Order information and dimensional table (All dimensions are in mm)

Number of contacts	Part number	Dimension A	Dimension B	Dimension C	Dimension D	Packaging unit	
						_ = 002 Tube	_ = 050 Tape-and-reel
12	525.026.035.012. _	6.35	7.95	5.08	1.5	40	600
16	525.026.035.016. _	8.89	10.49	7.62	1	40	500
30	525.031.035.030. _ *	17.78	18.98	16.51	1	20	500
40	525.031.035.040. _ *	24.13	25.33	22.86	1	15	550
50	525.031.035.050. _ *	30.48	31.68	29.21	1	10	550

* fully stackable, without contact loss

ODU MINI-CARD®
Pin headers
Series 515



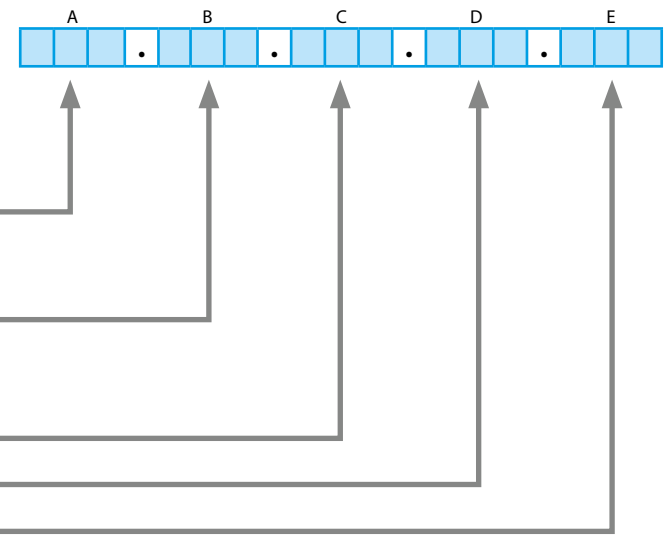
Contents

Pin headers for Series 515

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2	Technical data	11	
3	THT pin headers	12	
4	SMT pin headers	13	

Explanation of number codes for ODU MINI-CARD®, Series 515

No.	Meaning	Coding
A	Series	515 = Pin header
B	Type	023 = THT model 025 = SMT model 026 = SMT model 027 = SMT model 028 = SMT model 029 = THT model 031 = SMT model
C	Surface plating	035 = in mating area 0.75 µm Au on Ni, in termination area 2.0 µm Sn on Ni
D	Number of contacts	012 = 12 contacts (example)
E	Packaging	002 = Tube 050 = Tape-and-reel



Ordering example for Series 515

A	B	C	D	E
515	031	035	012	002

A = Series: 515 pin header

B = Type: SMT model

C = Surface: in mating area 0.75 µm Au on Ni
in termination area 2.0 µm Sn on Ni

D = Number of contacts: 12

E = Packaging: Tube

ODU MINI-CARD® pin headers, Series 515

Technical data

Electrical specification

Contact resistance:	$\leq 6 \text{ m}\Omega$
Test voltage:	500 V eff.
Operating voltage:	30 V
Nominal current: (single contact at 25 °C)	0.5 A
Isolationswiderstand	$\geq 1 \text{ G}\Omega$

Mechanical specification

Operating temperature:	PBT: -40 °C to +125 °C LCP: -40 °C to +125 °C
SMT solder temperature at solder point max. 30 s:	LCP: 260 °C
Humidity level:	75 % rel. humidity in accordance with DIN EN 60721-3-3
Mating force per contact:	< 0,18 N
Mating cycles:	> 100

Material and surface plating

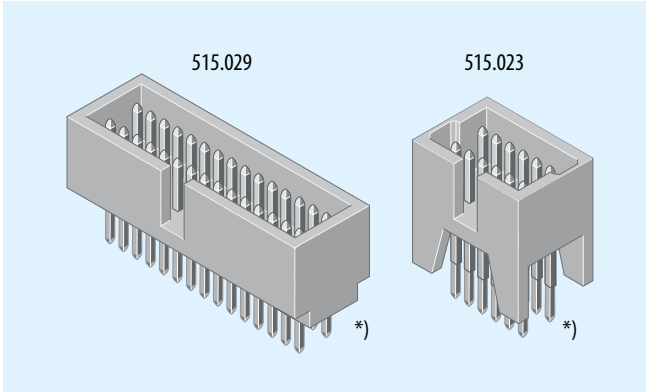
Contact surface	
Mating area:	0.75 μm Au on 1.25 μm Ni
Termination area:	2.0 μm Sn on 1.25 μm Ni
Insulator material:	THT: PBT grey GF acc. to UL 94 V-0 SMT: LCP black GF acc. to UL 94 V-0
Contact material:	Cu alloy

ODU MINI-CARD® solder-in pin header
2-row, straight, in pitch 1.27 × 2.54 mm

Features

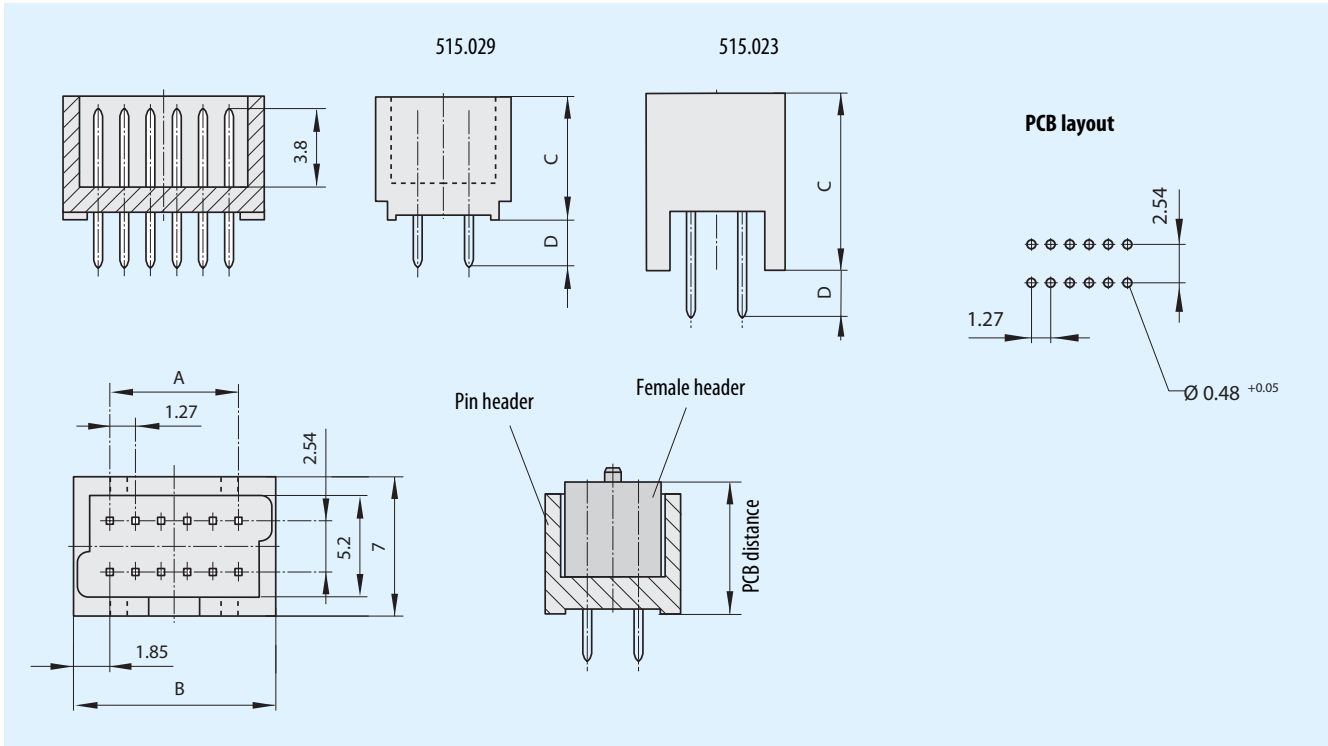
- Solder-in version for PCB assembly
- Most compact dimensions
- Packaging in tube

Technical data, see page 11.



*) rounded in the solder area

Dimensional drawing (schematic)



Order information and dimensional table (All dimensions are in mm)

Number of contacts	Part number	Dimension A	Dimension B	Dimension C	Dimension D	PCB distance	Packaging unit
12	515.023.035.012.002	6.35	10.05	10.0	2.3	12.0 to 13.5 mm	002 Tube
30	515.029.035.030.002	17.78	21.48	7.0	3.0	9.0 to 10.5 mm	20

Other numbers of contact upon request.

Number codes, see page 10.

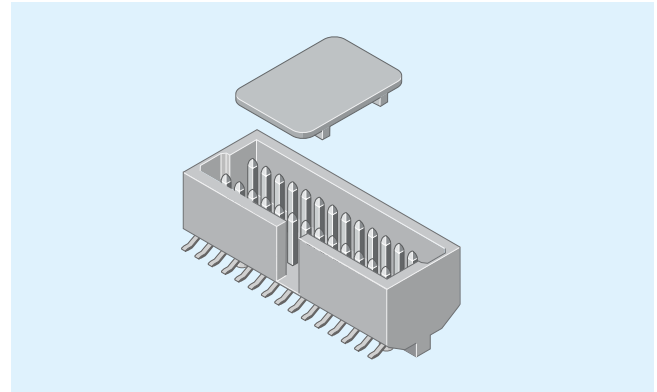
ODU MINI-CARD® SMT pin header

2-row, straight, in pitch 1.27 × 2.54 mm

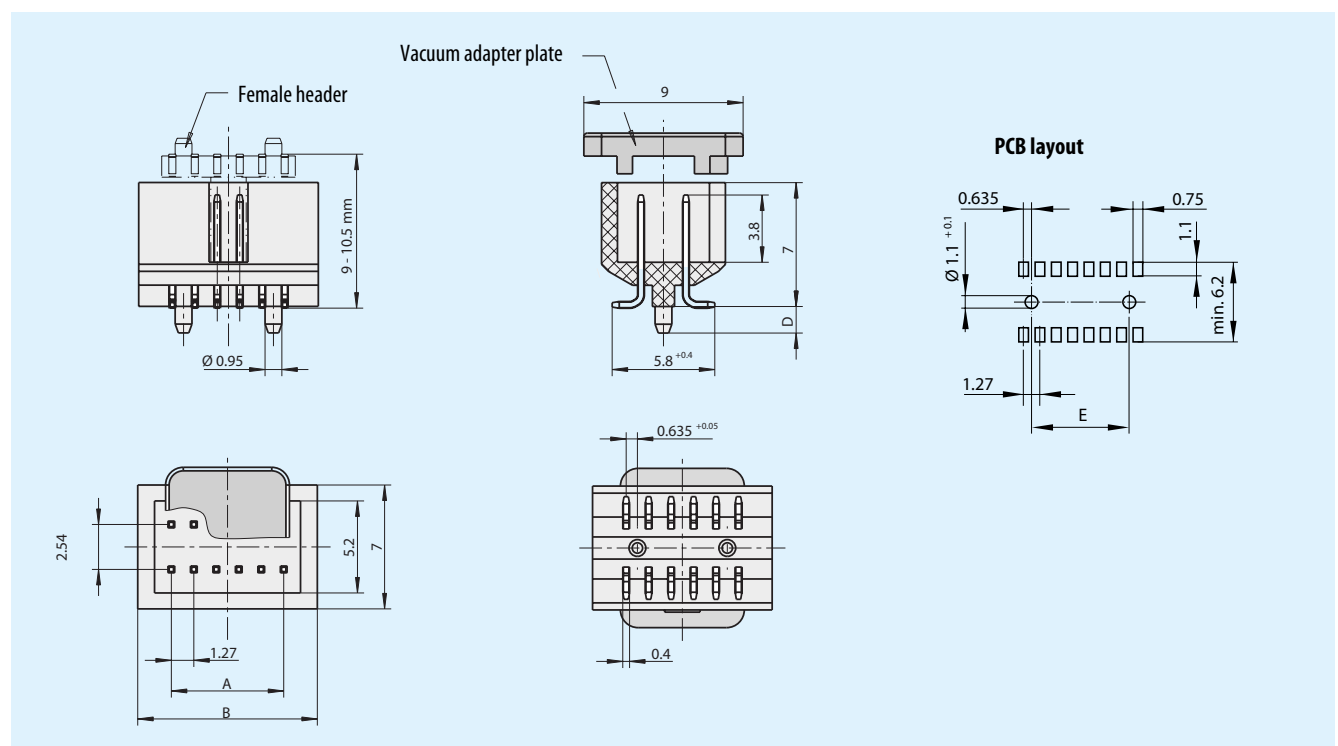
Features

- SMT pin header for board-to-board connection
- Vacuum adapter plate
- 2 moulded-on guiding pins
- Most compact dimensions
- Packaging in tube or tape-and-reel

Technical data, see page 11.



Dimensional drawing (schematic)



Order information and dimensional table (All dimensions are in mm)

Number of contacts	Part number	Dimension A	Dimension B	Dimension D	Dimension E	Packaging unit	
						_ = 002 Tube	_ = 050 Tape-and-reel
12	515.025.035.012. _	6.35	10.05	1.5	5.08	40	380
16	515.025.035.016. _	8.89	12.59	1.0	7.62	30	500
30	515.025.035.030. _	17.78	21.48	1.0	16.51	20	500

Other numbers of contacts upon request.

Number codes, see page 10.

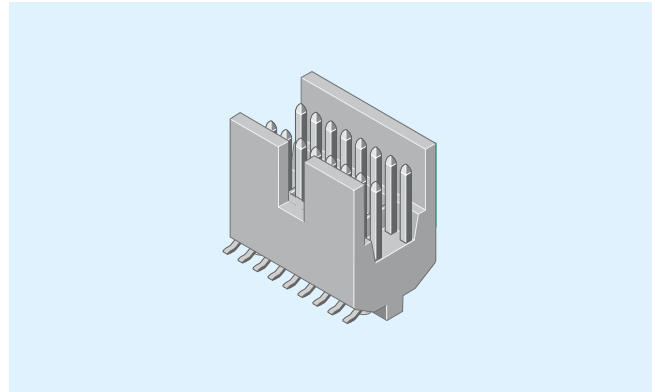
ODU MINI-CARD® SMT pin header

2-row, straight, in pitch 1.27 × 2.54 mm

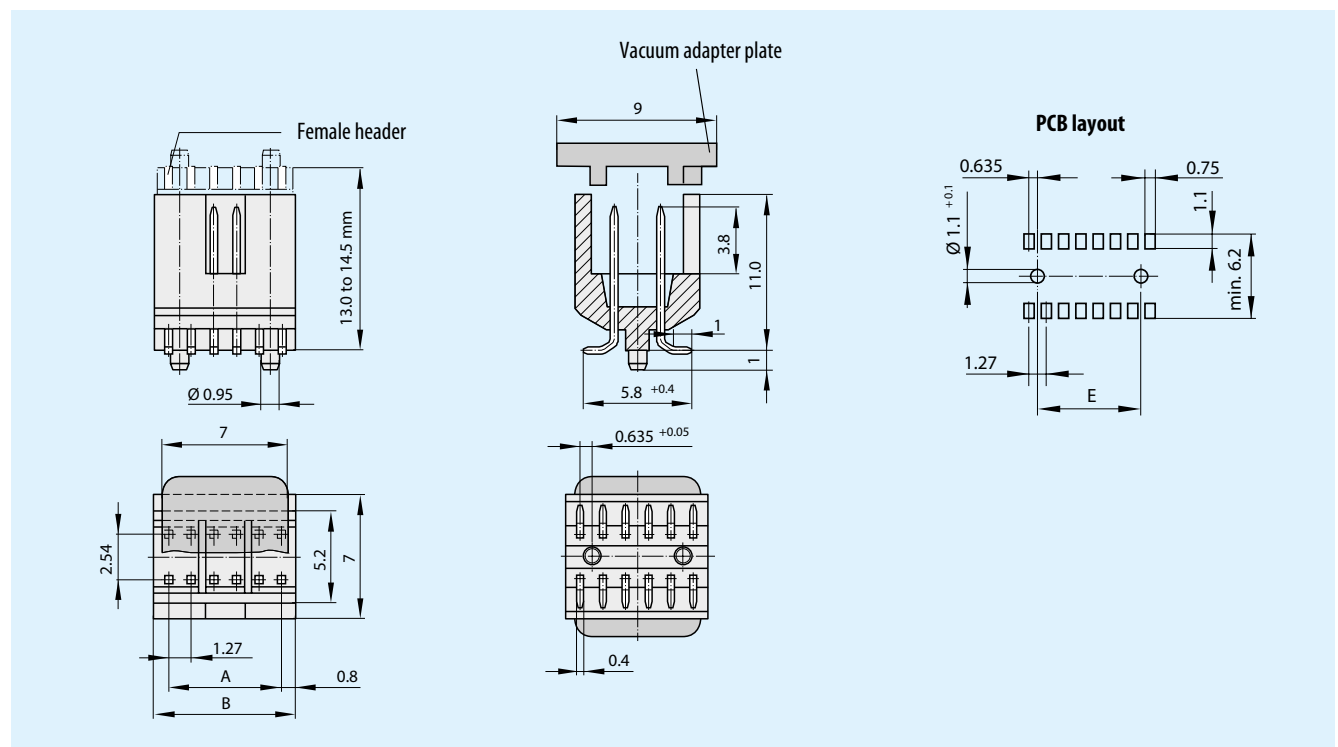
Features

- SMT pin header for board-to-board connection
- Vacuum adapter plate
- 2 moulded-on guiding pins
- Most compact dimensions
- Packaging in tube or tape-and-reel

Technical data, see page 11.



Dimensional drawing (schematic)



Order information and dimensional table (All dimensions are in mm)

Number of contacts	Part number	Dimension A	Dimension B	Dimension E	Packaging unit	
					_ = 002 Tube	_ = 050 Tape-and-reel
16	515.026.035.016. _	8.89	10.49	7.62	40	250
30	515.026.035.030. _	17.78	19.38	16.51	20	Upon request

Other numbers of contacts upon request.

Number codes, see page 10.

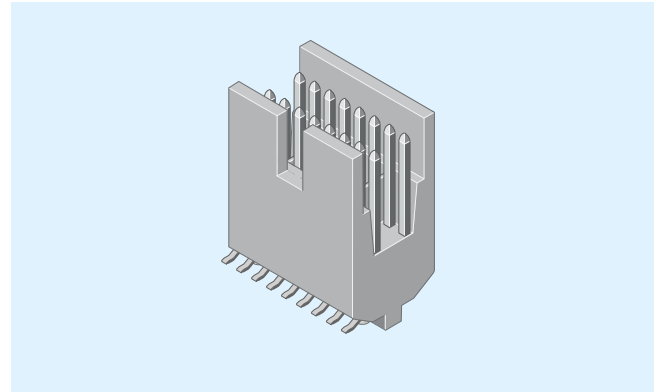
ODU MINI-CARD® SMT pin header

2-row, straight, in pitch 1.27 × 2.54 mm

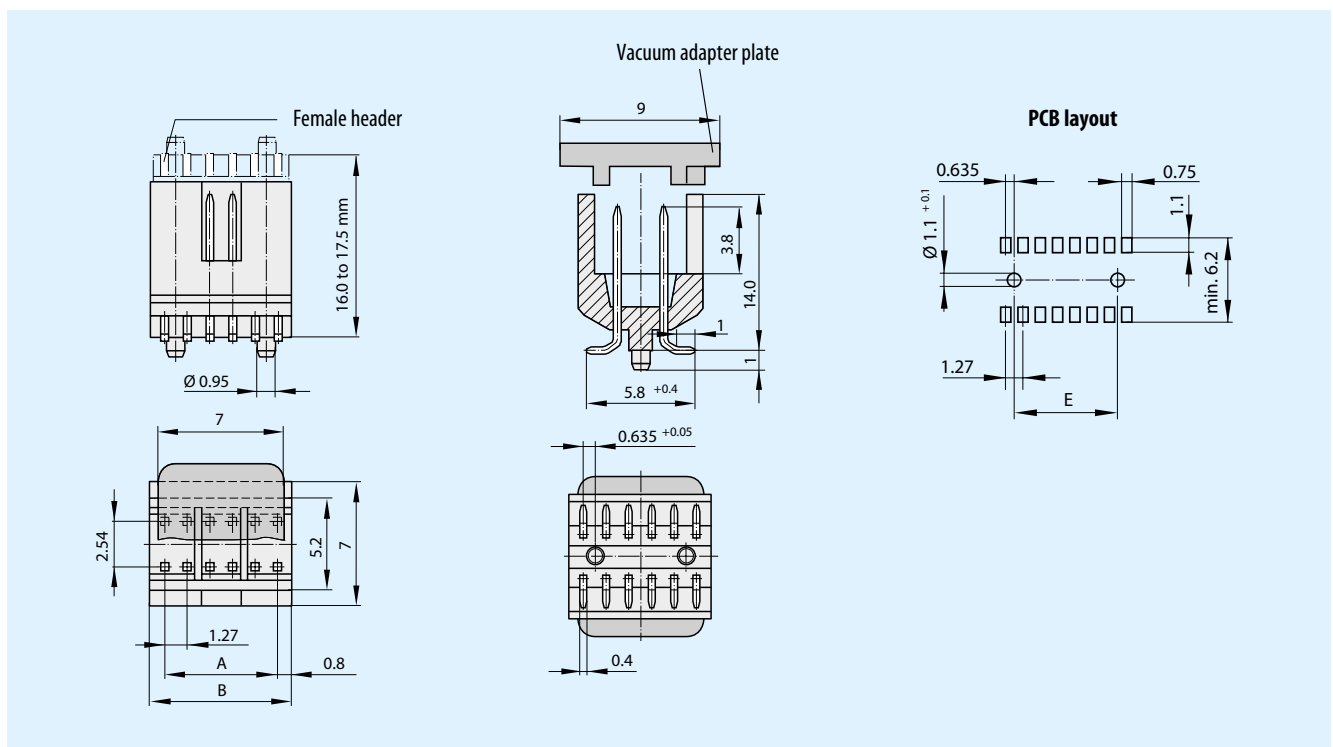
Features

- SMT pin header for board-to-board connection
- Vacuum adapter plate
- 2 moulded-on guiding pins
- Most compact dimensions
- Packaging in tube or tape-and-reel

Technical data, see page 11.



Dimensional drawing (schematic)



Order information and dimensional table (All dimensions are in mm)

Number of contacts	Part number	Dimension A	Dimension B	Dimension E	Packaging unit	
					_ = 002 Tube	_ = 050 Tape-and-reel
16	515.027.035.016._	8.89	10.49	7.62	40	170

Other numbers of contacts upon request.

Number codes, see page 10.

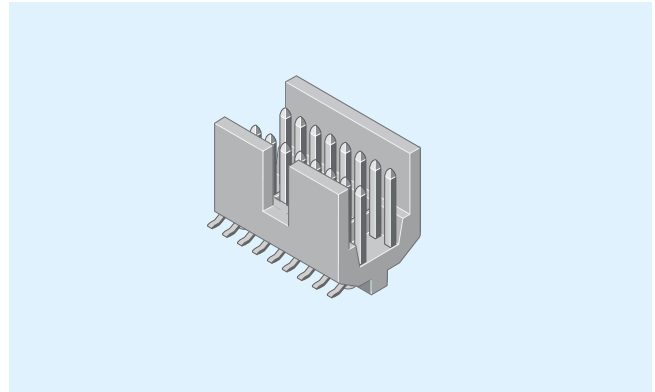
ODU MINI-CARD® SMT pin header

2-row, straight, in pitch 1.27 × 2.54 mm

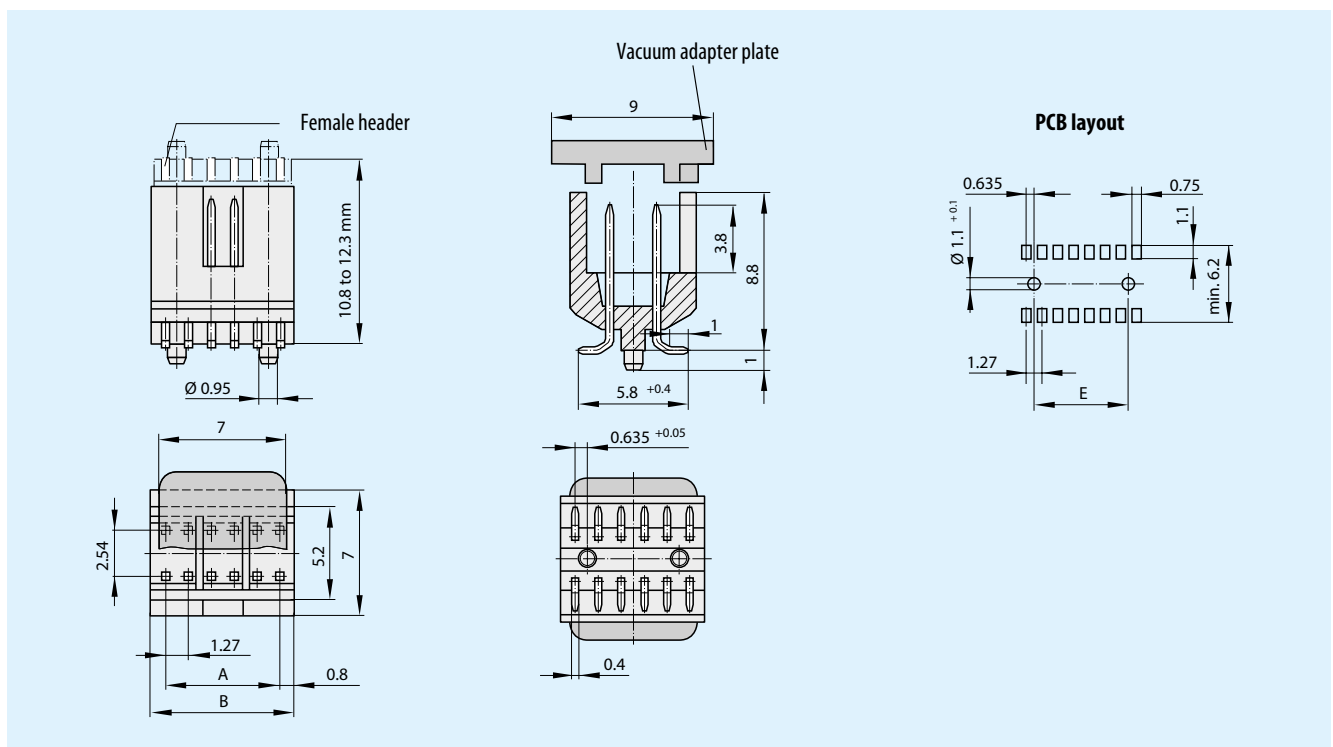
Features

- SMT pin header for board-to-board connection
- Vacuum adapter plate
- 2 moulded-on guiding pins
- Most compact dimensions
- Packaging in tube or tape-and-reel

Technical data, see page 11.



Dimensional drawing (schematic)



Order information and dimensional table (All dimensions are in mm)

Number of contacts	Part number	Dimension A	Dimension B	Dimension E	Packaging unit	
					_ = 002 Tube	_ = 050 Tape-and-reel
16	515.028.035.016._	8.89	10.49	7.62	40	350

Other numbers of contacts upon request.

Number codes, see page 10.

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