

Amphenol

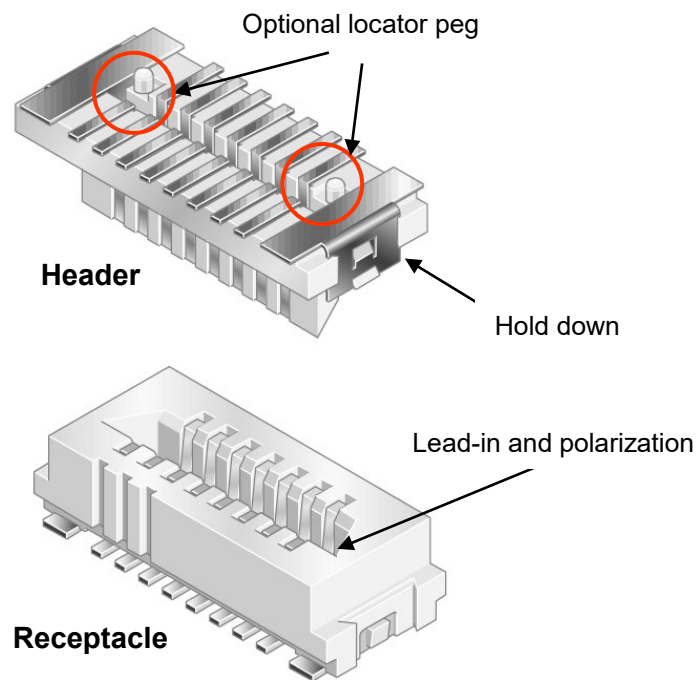
COMMUNICATIONS SOLUTIONS

Basics Board-to-Board
Conan[®] 1.00mm Pitch

 **FCi Basics**

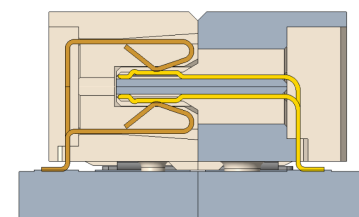
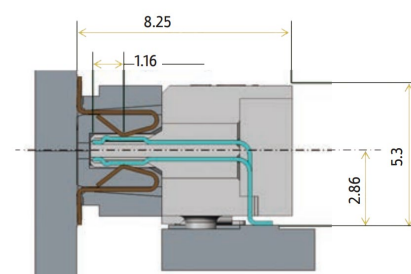
- Conan® 1.00mm **mezzanine connector system** provides a mechanically secure, high density electrical interface between parallel or perpendicular printed circuit boards or flexible printed circuits
- Conan® 1.00mm is a comprehensive and versatile solution **designed for handheld and portable electronics**. It has good mating performance, rugged design and is under 70 positions
- Conan® 1.00mm solution includes **5 standard stack heights** for precision in a tight range from **4.15mm to 7mm** and **9 sizes up to 69 positions**
- Conan® out-performs competitors because of superior mating characteristics that include **“click” audible feedback** and high mated retention with **zipper un-mating**
- Conan® provides reliability and reduced business risk with a **lead-in and polarized housing** to assist proper alignment during blind mating
- Conan® 1.00mm solution is especially ideal for Industrial Electronics applications and Harsh Environments.

Conan® 1.00mm Product Overview



NEW

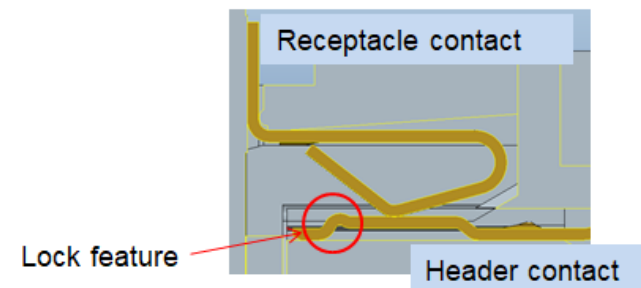
Right-Angle version



Base P/N: 10138400
11, 31, 41, 51, 69 positions

Base P/N: 10180999
11, 31 positions

- Positions: 9 to 69
- Stack height: 4.15mm to 7.0mm
- Current rating: 1A/pin, with all pin powered
- Speed: up to PCIe Gen3 with 8Gbps
- Unique feature: Lock feature on contact to improve un-mating force(connection reliability)



Conan® 1.00mm

Product Specifications

Specifications

- 9 to 69 positions
- Stack height: 4.15mm to 7.0mm
- Audible click during mating signals proper engagement
- Signal speed: up to 8Gb/s(PCIe Gen3)
- Lead-in and polarized housing supports blind mating

Materials

- Housing: high temperature plastic
- Terminal: Beryllium-copper
- Plating: 0.38 µm GXT™/ 1.27 µm Sn
0.76 µm GXT™/ 1.27 µm Sn

Electrical Performances

- Insulation Resistance: 1000MΩ min.
- Current Rating: 1.0A continuous (all contacts powered)
- Contact Resistance: 30mΩ max.
- Withstanding Voltage: 500V AC RMS 60Hz

Shock and Vibration

Mechanical shock

- 35G, 10ms, half sine, 10times/axis

Vibration

- 5-1000Hz, 1.81G.rms,8hours/axis

Mechanical Performance

- Durability: 30/200 mating cycles
- Mating Force: 125 g per contact max.
- Un-mating Force: 45g per contact min.
- Contact retention to housing: 1.10N min.
- Retention Force (connector to PCB): 44N (10lbf) min.

Environmental

- Operating Temperature: -55°C to +125°C

Conan® 1.00mm

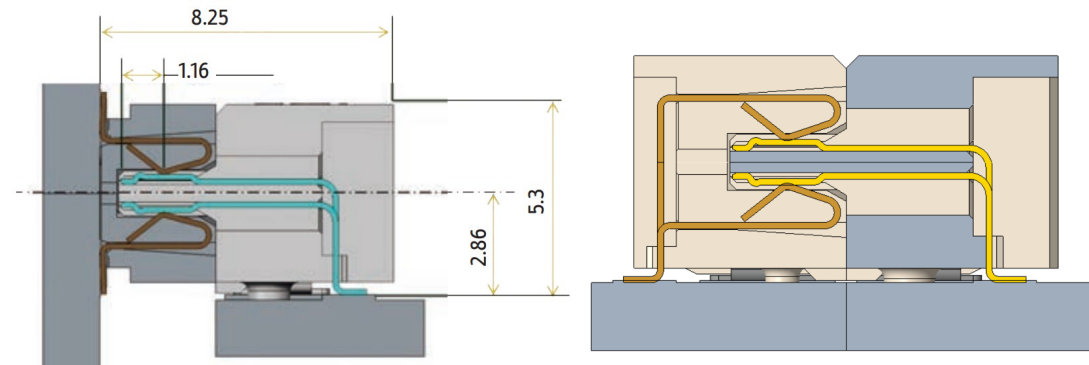
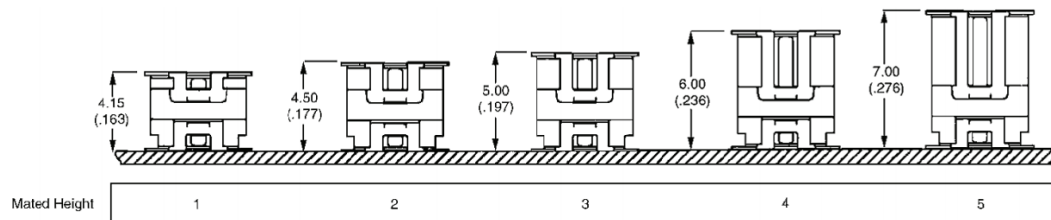
Feature and Benefits

Features	Benefits
Up to 69 positions and 4.15mm to 7.0mm stack heights and suitable for board to board; flex to board and edgecard to board solutions	Comprehensive range of sizes and stack heights support diverse electronic packaging building practises
NEW right-angle configuration	Comprehensive solution to satisfy all customer needs
Parallel connection support up to 8Gb/s	Compatible with PCIe® Gen high speed performance on selected stack heights
Audible `click` during mating signals proper engagement	Facilitates assembly process and supports secure blind mating
Unique lock feature on contacts	Suitable for industrial applications need higher connection reliability
Lead-in and polarized housing	Prevents mis-mating during assembly
Optional locating pegs Optional cap	Facilitates easy assembly and increased accuracy during manual assembly Compatible with auto- suction nozzle picker
Metal hold down	Enables improved retention to the PCB
Blade on beam contact design	Resist peeling damage: offers reliability and reduced business risk

Conan® 1.00mm Product Overview

Parallel

Right-Angle



919 - T - C - W - X - Y - ZZ - LF - Lead free RoHS

Type	T
Header with no pegs	0
Header with pegs	1
Receptacle with no pegs	2
Receptacle with pegs	3

Pick And Place Cap or Tape	C
Without cap or tape	0
With cap	1
With tape (receptacle only)	2

Packaging	W
Tube	2
Pressure sealed tape & reel	3

Plating	X
15µin/.38µin. GXT	1

Header Height	Receptacle Height	Mated Height	Y
0.43 [.80]	.129 [3.28]	.163 [4.15]	1
0.48 [1.23]	See Y = 1 for all receptacles	.177 [4.50]	2
0.68 [1.73]		.197 [5.00]	3
.107 [2.72]		.236 [6.00]	4
.1465 [3.721]		.276 [7.00]	5

Number of Positions	ZZ
9	09
11	11
15	15
21	21
25	25
31	31
41	41
51	51
69	69

Description	Part Numbers
Conan® right angle header, 31 positions	10138400-111131LF
Conan® right angle header, 41 positions	10138400-111141LF
Conan® right angle header, 51 positions	10138400-111151LF
Conan® right angle header, 69 positions	10138400-111169LF
Conan® right angle receptacle, 11 positions	10180999-211111LF
Conan® right angle receptacle, 31 positions	10180999-211131LF

V/T & R/A header and receptacle could achieve perpendicular & coplanar mating

Conan® 1.00mm

Main Markets & Applications

Industrial

- PLC
- Drive



Data

- Servers
- Storage



Communication

- Router
- Base Station



Energy

- Solar Inverter
- Power Control



Home Automation

- Home controller
- Security Camera



Automotive

- Electronic Control Units
- Micro Controllers



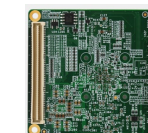
Medical

- Ultrasound
- Patient Monitor



Embedded Computing

- Single Board Computers
- System on module (SOM)



Instrumentation / POS

- Rugged handhelds
- POS terminals



Conan® 1.00mm

Additional Information

- Conan® 1.00mm [Landing Page](#)
- Conan® 1.00mm [datasheet](#)
- Conan® 1.00mm [Product Presentation](#)

Thank You

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COMMUNICATIONS SOLUTIONS

 **FCi Basics**