



**THE DATASHEET OF**  
**91911-31215LF**



# Conan® 1.00mm Connector System

## SECURE, HIGH SPEED DESIGN FOR HARSH ENVIRONMENTS

Amphenol's Conan® 1.00mm is a mezzanine connector designed for industrial applications and harsh environments. Its unique design with an audible "click" sound enhances the security and ease of use.

- New right angle configuration in 4 pin counts
- Right angle configurations has compact size of 8.5mm depth and 5.3mm height on PCB after mating
- Enables perpendicular stacking application



### TARGET MARKETS



### FEATURES

- Vertical configuration
  - 9 to 69 positions
  - 4.15mm to 7.0mm stack heights increment
- Right angle configuration
  - 31, 41, 51, 69 position increment
- Vertical housing and terminal profile guarantees support of up to 5Gb/s
- Vertical versus vertical mating configuration
- Vertical receptacle versus RA header mating configuration
- Audible "click" sound during mating
- Polarization feature of housing
- Multiple packaging options available
- Locating pegs option
- Metal hold down option
- RoHS compliant and lead free

### BENEFITS

- Comprehensive range of sizes and stack heights support diverse electronic packaging schemes
- Comprehensive solution to satisfy all customers needs
- Compatible with PCIe® Gen high speed performance on selected stack heights
- Useful for parallel board stacking application
- Useful for perpendicular stacking application
- Ensures secure mating interconnection
- Prevents mismating
- Meets various feeding processing needs
- Facilitates ease and accuracy during manual assembly
- Enables better retention on to the PCB
- Meets environmental, health and safety requirements

# TECHNICAL INFORMATION

## MATERIAL

- Contact Base Metal
  - Header: Phosphor Bronze
  - Receptacle: Copper Alloy, High Spring
- Contact Area Finish: Gold or GXT®
- Solder Tail Area: Pure Tin over 1.27µm Nickel
- Housing Material: Cream-colored LCP (UL94V-0)

## MECHANICAL PERFORMANCE

- Mating Force: 125g per contact max.
- Unmating Force: 25g per contact min.
- Retention Force (connector to PCB): 44N min.
- Contact Wipe: 0.64mm
- Durability: 30 mating cycles

## ELECTRICAL PERFORMANCE

- Insulation Resistance: 1000MΩ min.
- Contact Resistance: 30MΩ max.
- Withstanding Voltage: 500VAC RMS 60Hz
- Current Rating: 1.0A continuous (per contact, all contacts powered)
- Signal Integrity (differential pairs, connector only)
  - Impedance:  $100\Omega \pm 10$  @ 50 ps edge (10–90%)
  - Insertion Loss: < 1.5dB up to 5GHz
  - NEXT:  $\leq 3.5\%$  for a 50 ps edge (10–90%)
  - FEXT:  $\leq 2.5\%$  for a 50 ps edge (10–90%)

## ENVIRONMENTAL

- IMFG per EIA 364–65 class 2a without SO2, 20 days mated
- High Temperature Life: 105°C

## SPECIFICATIONS

- Product Specification: GS-12-006

## PACKAGING

- Tape and reel with vacuum pickup caps

## TARGET MARKETS/APPLICATIONS



Communications and Networking Equipment



Electronic Security  
Energy Controller/Module/Display  
Machine-to-Machine (M2M) Office  
Equipment  
Point-of-Sale Equipment, Scanning  
Portable Meter/Instrument



Medical Diagnostics

## PART NUMBER SELECTOR

### VERTICAL

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

Header Height	Receptacle Height	Mated Height	+100 -008 [+.25] [-.20]	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

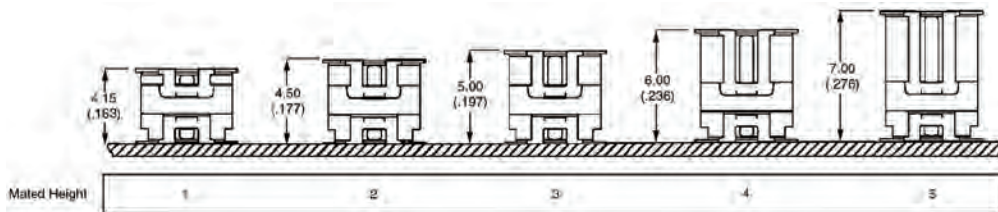
Plating	X
15µin/.38µin. GXT	1

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

Recommended packaging combinations:

- For production: Connector with pick and place cap packaged in tape and reel (XXXX1-3XXXX)
- For proto-typing: Connector without pick and place cap packaged in tubes (XXXX0-2XXXX)
- For commercial applications see print 10118744

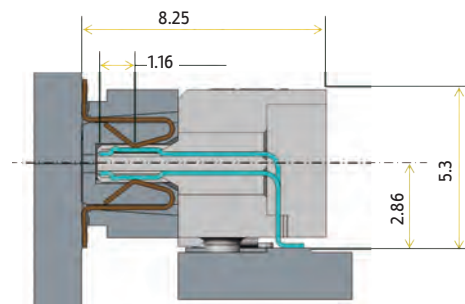
### MODULE



Mated connector max. width: 5.59mm

### RIGHT ANGLE

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



BASICS/CONAN/0523EA4

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