

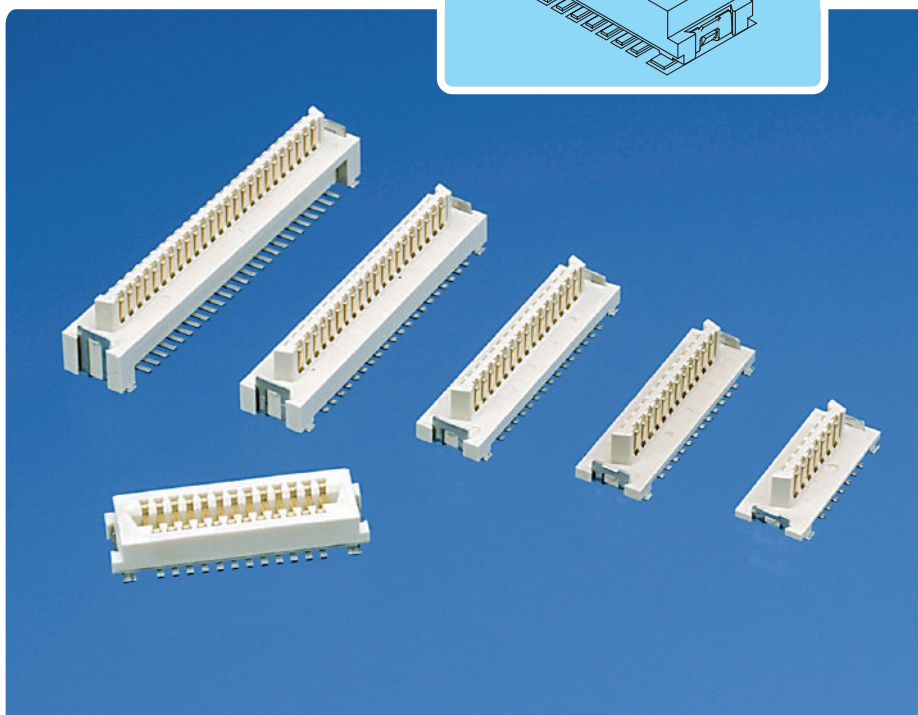
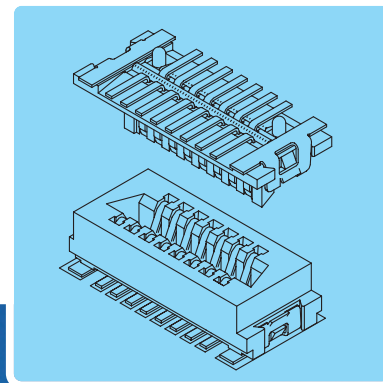
## CONAN®

High Density, Low Profile 1.00mm Connector System  
Enhances Reliability for Portable Electronics

### DESCRIPTION

The Conan 1.0mm mezzanine connector system provides a mechanically secure, high density electrical interface between parallel printed circuit boards.

Conan's mechanical features and palladium/nickel/gold plated electrical contacts qualify it for high reliability use in portable and mobile electronic equipment.



### FEATURES & BENEFITS

- "Snap" engagement contacts assure secure mating with an audible "click"
- Blade-on-beam contact design allows "peeling" disengagement and prevents contact stubbing
- Connector housings feature "lead-in" angles to assist in mating
- Surface mounted metal hold-downs reinforce connector retention to the printed circuit board
- Mating polarization prevents backward connections
- PCB polarization prevents errors during printed circuit board assembly
- Pick and place caps with tape and reel packaging support automated assembly processes
- Header height options support a range of PCB stack heights: 4.15mm to 7mm
- 9 part sizes: 9 to 69 contacts
- Lead-free RoHS compatible products satisfy environmental regulations

### TARGET MARKETS / APPLICATIONS

- Portable and mobile electronic equipment
- Medical and Instrumentation
- Office equipment
- Communications and networking equipment
- Point-of-sale equipment

## MATERIALS

- Contact base metal
  - Header: Phosphor bronze
  - Receptacle: Beryllium copper
- Contact area finish: 0.38um (15uin.) GXT (Palladium-nickel alloy with gold flash) over 1.27um (50uin.) nickel
- Solder area finish: Pure tin over 1.27um (50uin.) nickel
- Housing material: Cream-colored LCP (UL 94V-0)
- Hold-down base metal: Brass
- Hold-down finish: Pure tin over nickel

## ELECTRICAL PERFORMANCE

- Insulation resistance: 1000 MΩ min
- Contact resistance: 30 mΩ max
- Withstanding voltage: 500 V ac, rms, 60 Hz
- Current rating: 1.0 amp continuous (per contact, all contacts powered)
- Signal Integrity (differential pairs, connector only)
  - Impedance: 100Ω +/- 10% @ 50 ps edge (10-90%)
  - Insertion Loss: < 1dB to 5GHz
  - NEXT: ≤3.5% for a 50 ps edge (10-90%)
  - FEXT: ≤2.5% for a 50 ps edge (10-90%)

## MECHANICAL PERFORMANCE

- Mating force: 125g per contact max
- Unmating force: 45g per contact min
- Retention force (connector to PCB): 44 N (10lbf) min
- Contact wipe: 0.64mm (0.025 in.)
- Durability: 30 mating cycles

## SPECIFICATIONS

- GS-12-006

## APPROVALS AND CERTIFICATIONS

- UR file: E66906; CSA file: LR46923

## PRIMARY CUSTOMER DRAWING

- 91900

## PACKAGING

- Anti-static tubes or tape and reel

## PART NUMBERS

919 T C - W X Y ZZ LF

LEAD FREE OPTION

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	0
WITH CAP	1

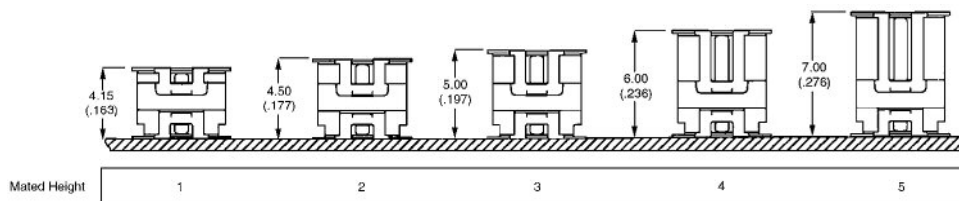
PACKAGING	W
TUBE	2
PRESSURE SEALED TAPE & REEL	3

Y	HEADER HEIGHT	RECEPTACLE HEIGHT	MATED HEIGHT	+0.010 -0.008 [+.25 [-.20]
1	.034 [.86]	.129 [3.28]	.163 [4.15]	
2	.048 [1.23]		.177 [4.50]	
3	.068 [1.73]	SEE Y=1 FOR ALL RECEPTACLES	.197 [5.00]	
4	.107 [2.72]		.236 [6.00]	
5	.1465 [3.721]		.276 [7.00]	

ZZ	NUMBER OF POSITIONS
09	9
11	11
15	15
21	21
25	25
31	31
41	41
51	51
69	69

X	PLATING
1	15u"/.38u GXT

Recommended packaging combinations:  
For production: Connector with pick and place cap packaged in tape and reel (XXXXX1-3XXXX)  
For proto-typing: Connector without pick and place cap packaged in tubes (XXXX0-2XXXX)



Mated connector max.width: .220" (5.59mm)

Additional information can be found at [www.fciconnect.com/conan](http://www.fciconnect.com/conan)