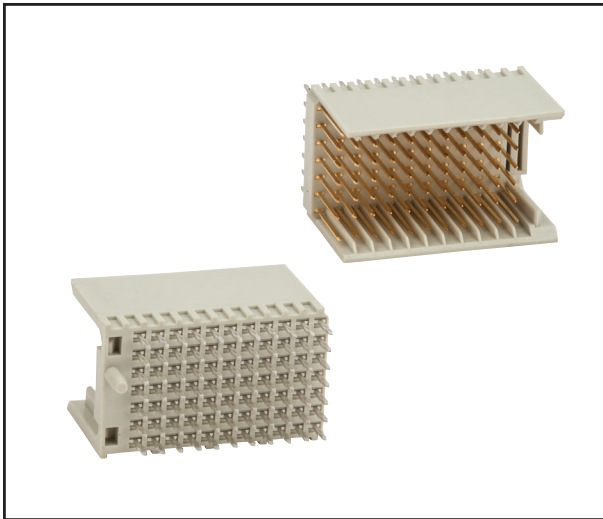


# 3M™ CP2 Press-Fit Header

2 mm Type C, 55 Signal Contacts, Left Guidance

CP2 Series



- 25 mm basic system unit
- 2 mm grid spacing allows for high signal density at low cost
- “Eye of the Needle” compliant pin press-fit design helps reduce manufacturing time and cost
- Three contact mating levels for Early Mate Late Break or “Hot Swap” applications reduces manufacturing time and cost
- Feed through termination available for midplane applications
- Additional grounding rows available for improved ground bounce and EMI immunity
- Mates with 5 row 3M™ HSHM, UHM and CP2 Sockets
- End to end stackable with 5 row 3M™ HSHM, HM and CP2 Headers
- See the Regulatory Information Appendix (RIA) in the “RoHS compliance” section of [www.3Mconnectors.com](http://www.3Mconnectors.com) for compliance information (RIA E1 & C1 apply)

Date Modified: July 16, 2015

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## Physical

### Insulation:

Material: Glass Filled Polyester (PBT)

Flammability: UL94V-0

### Contact:

Material: Copper Alloy

Plating: See Ordering Information

## Mechanical

Mating Force:  $\leq 0.75\text{N/PIN}$

Withdrawal Force:  $\geq 0.15\text{N/PIN}$

Mating and Un-mating Operations 200 for KR plating

Application: This module is not suitable for stand-alone use. (Refer to IEC-61076-4-101)

## Electrical

Current Rating: 1.0 Amperes at 70°C with all contacts powered

Contact Resistance:  $\leq 20\text{ m}\Omega$

Insulation Resistance:  $\geq 10,000\text{ M}\Omega$

Test Voltage: 750 VAC<sub>RMS</sub>

## Environmental

Temperature Ratings: -55°C to +125°C

## PCB Data

Recommended PCB Plated Through Hole:  $\varnothing 0.6 \pm 0.05\text{ mm}$

Drill hole diameter  $\varnothing 0.7 \pm 0.02\text{ mm}$

Hole platings Cu 25~50  $\mu\text{m}$ , Sn < 10  $\mu\text{m}$

PCB thickness: 2.4 - 5.6 mm for 3.7 mm tails, 1.4 - 5.6 mm for 2.3 mm tails

Press-In Force:  $\leq 204\text{N/pin}$  on nominal hole diameter

Retention Force:  $\geq 13.5\text{N/pin}$  on nominal hole diameter

**3M**

Electronics Materials Solutions Division  
Interconnect Solutions

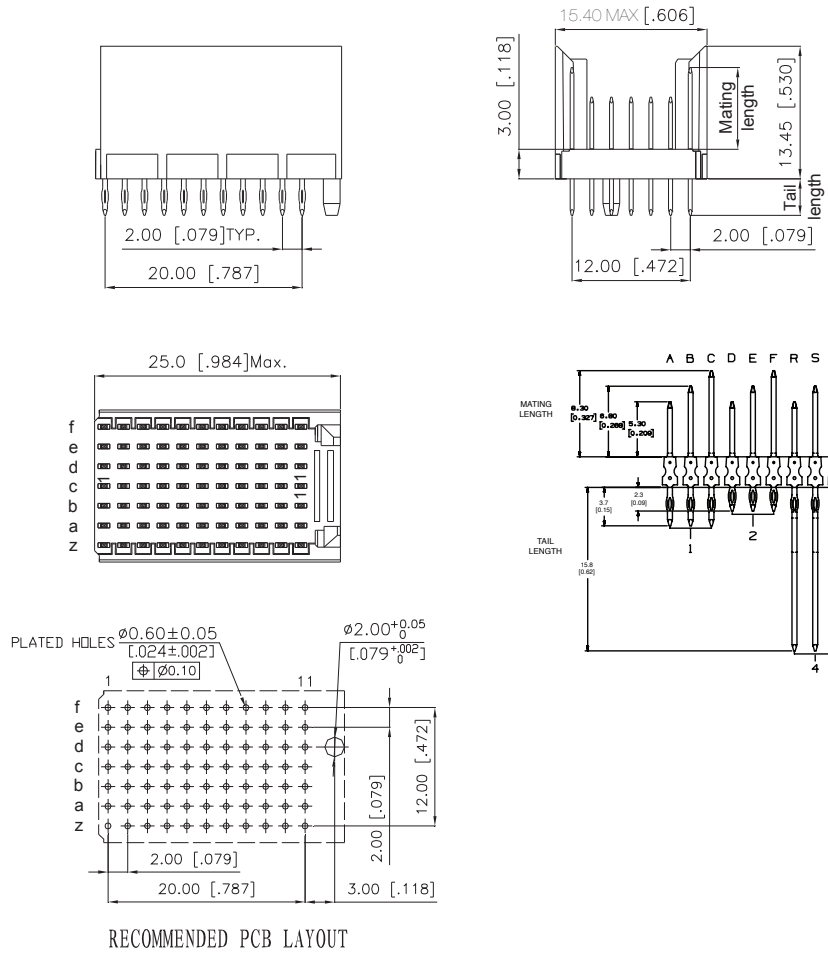
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**800-225-5373**

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2 mm Type C, 55 Signal Contacts, Left Guidance

CP2 Series



	mm [Inch]		
	Tolerance Unless Noted		
	±0.	±.0	±.00
mm	±1	±0.3	±0.13

[ ] Dimensions for Reference only

- This diagram serves only for Part Number descriptive definitions.
  - For standard product configuration please see following pages.
- PLEASE CONTACT YOUR LOCAL SALES REPRESENTATIVE FOR CUSTOMER SPECIFIC PRODUCT CONFIGURATIONS.

## Ordering Information

### CP2-HC055-XXX-XXXX

- |   |  |
|---|--|
| <p>Loading Configurations</p> <p>(See diagrams on following pages)</p> <ul style="list-style-type: none"> <li>— Grounding Options:             <ul style="list-style-type: none"> <li>G= with ground pins</li> <li>Blank= without ground pins</li> </ul> </li> <li>— EMLB Patterns</li> <li>— Primary Tail Length             <ul style="list-style-type: none"> <li>1= 3.7mm</li> <li>2= 2.3mm</li> <li>4= 15.8mm</li> </ul> </li> </ul> | <p>Plating Options</p> <p>FJ = 10 ~ 20 μ" Gold Contact Area<br/>100 ~ 200 μ" Matte Tin<br/>50 ~ 80 μ" Nickel Underplate<br/>(RIA E1 &amp; C1 apply)</p> <p>KR = 30 ~ 40 μ" Gold Contact Area<br/>100 ~ 200 μ" Matte Tin<br/>50 ~ 80 μ" Nickel Underplate<br/>(RIA E1 &amp; C1 apply)</p> <p>KV = 30-40 u" Mate End Gold Contact area<br/>Gold Flash Tail Contact area<br/>50-80 u" Nickel Underplate<br/>(RIA E1 &amp; C1 apply)<br/>For Primary Tail Length Option 4 only</p> |
|---|--|

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# 3M™ CP2 Press-Fit Header

2 mm Type C, 55 Signal Contacts, Left Guidance

CP2 Series

**CP2-HC055-E1-TG30** **Connector Type CL11**

F											
E	A	A	A	A	A	A	A	A	A	A	
D	A	A	A	A	A	A	A	A	A	A	
C	A	A	A	A	A	A	A	A	A	A	
B	A	A	A	A	A	A	A	A	A	A	
A	A	A	A	A	A	A	A	A	A	A	
Z											
	1	2	3	4	5	6	7	8	9	10	11

**CP2-HC055-GE1-TG30** **Connector Type CL11**

F	C	C	C	C	C	C	C	C	C	C	
E	A	A	A	A	A	A	A	A	A	A	
D	A	A	A	A	A	A	A	A	A	A	
C	A	A	A	A	A	A	A	A	A	A	
B	A	A	A	A	A	A	A	A	A	A	
A	A	A	A	A	A	A	A	A	A	A	
Z	C	C	C	C	C	C	C	C	C	C	
	1	2	3	4	5	6	7	8	9	10	11

**CP2-HC055-A1-TG30** **Connector Type CL11**

F											
E	B	B	B	B	B	B	B	B	B	B	
D	B	B	B	B	B	B	B	B	B	B	
C	B	B	B	B	B	B	B	B	B	B	
B	B	B	B	B	B	B	B	B	B	B	
A	B	B	B	B	B	B	B	B	B	B	
Z											
	1	2	3	4	5	6	7	8	9	10	11

**CP2-HC055-GA1-TG30** **Connector Type CL11**

F	C	C	C	C	C	C	C	C	C	C	
E	B	B	B	B	B	B	B	B	B	B	
D	B	B	B	B	B	B	B	B	B	B	
C	B	B	B	B	B	B	B	B	B	B	
B	B	B	B	B	B	B	B	B	B	B	
A	B	B	B	B	B	B	B	B	B	B	
Z	C	C	C	C	C	C	C	C	C	C	
	1	2	3	4	5	6	7	8	9	10	11

**Signal Contact Configuration Worksheet**

F											
E											
D											
C											
B											
A											
Z											
	1	2	3	4	5	6	7	8	9	10	11

**CP2-HC055-GA4-GG30** **Connector Type CL11**

F	T	T	T	T	T	T	T	T	T	T	
E	R	R	R	R	R	R	R	R	R	R	
D	R	R	R	R	R	R	R	R	R	R	
C	R	R	R	R	R	R	R	R	R	R	
B	R	R	R	R	R	R	R	R	R	R	
A	R	R	R	R	R	R	R	R	R	R	
Z	T	T	T	T	T	T	T	T	T	T	
	1	2	3	4	5	6	7	8	9	10	11

**CP2-HC055-F1-KR** **Connector Type CL11**

F											
E	A	A	A	A	A	A	A	A	A	A	
D	A	A	A	A	A	A	A	A	A	A	
C	B	B	B	B	B	B	B	B	B	B	
B	A	A	A	A	A	A	A	A	A	A	
A	A	A	A	A	A	A	A	A	A	A	
Z											
	1	2	3	4	5	6	7	8	9	10	11

**CP2-HC055-GF1-KR** **Connector Type CL11**

F	C	C	C	C	C	C	C	C	C	C	
E	A	A	A	A	A	A	A	A	A	A	
D	A	A	A	A	A	A	A	A	A	A	
C	B	B	B	B	B	B	B	B	B	B	
B	A	A	A	A	A	A	A	A	A	A	
A	A	A	A	A	A	A	A	A	A	A	
Z	C	C	C	C	C	C	C	C	C	C	
	1	2	3	4	5	6	7	8	9	10	11

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Unless otherwise noted, references to industry specifications are intended to indicate substantial compliance to the material elements of the specification. Such references should not be construed as a guarantee of compliance to all requirements in a given specification.

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