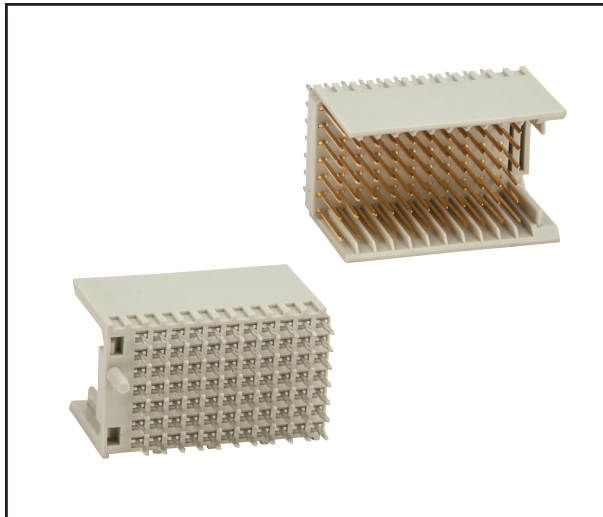


# 3M™ CP2 Press-Fit Header

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



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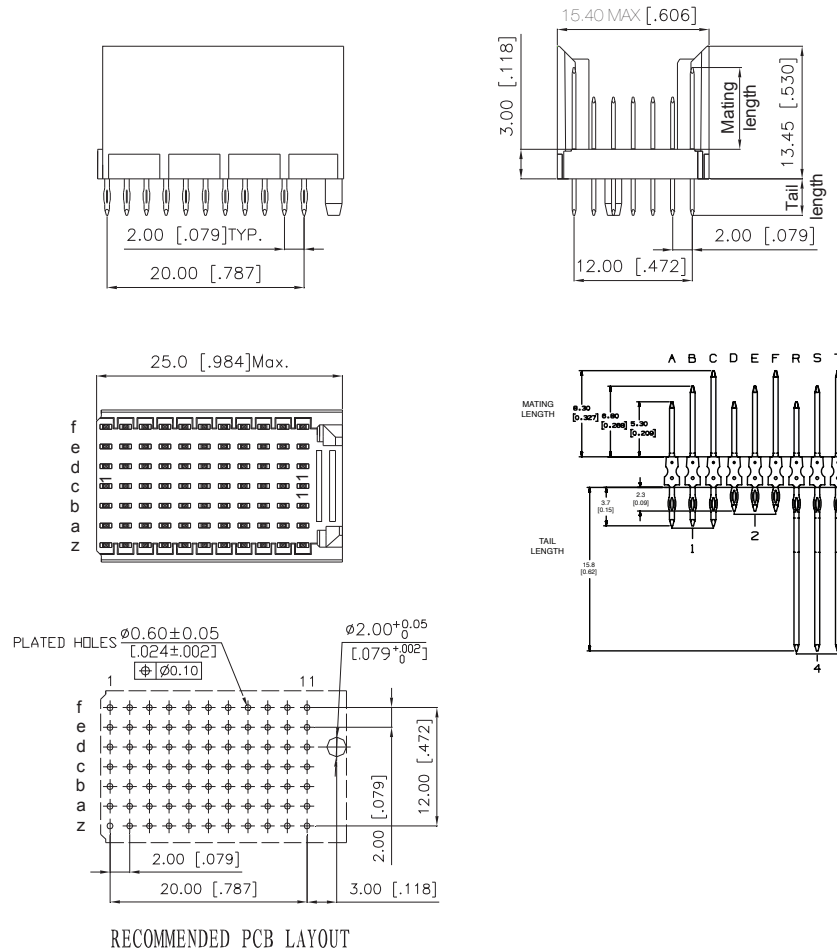
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# 3M™ CP2 Press-Fit Header

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

- Loading Configurations (See diagrams on following pages)
- Grounding Options:
    - G= with ground pins
    - Blank= without ground pins
  - EMLB Patterns
  - Primary Tail Length
    - 1= 3.7mm
    - 2= 2.3mm
    - 4= 15.8mm
- Plating Options
- FJ = 10 ~ 20  $\mu$ " Gold Contact Area  
100 ~ 200  $\mu$ " Matte Tin  
50 ~ 80  $\mu$ " Nickel Underplate  
(RIA E1 & C1 apply)
  - KR = 30 ~ 40  $\mu$ " Gold Contact Area  
100 ~ 200  $\mu$ " Matte Tin  
50 ~ 80  $\mu$ " Nickel Underplate  
(RIA E1 & C1 apply)
  - KV = 30-40  $\mu$ " Mate End Gold Contact area  
Gold Flash Tail Contact area  
50-80  $\mu$ " Nickel Underplate  
(RIA E1 & C1 apply)  
For Primary Tail Length Option 4 only

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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

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

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

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

Signal Contact Configuration Worksheet										
F										
E										
D										
C										
B										
A										
Z										
	1	2	3	4	5	6	7	8	9	10

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

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

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

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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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