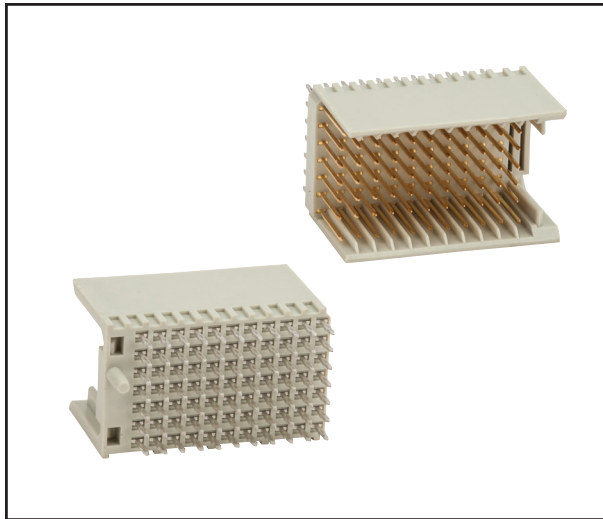


3M™ CP2 Press-Fit Header

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 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_{RMS}

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 μm , Sn<10 μm

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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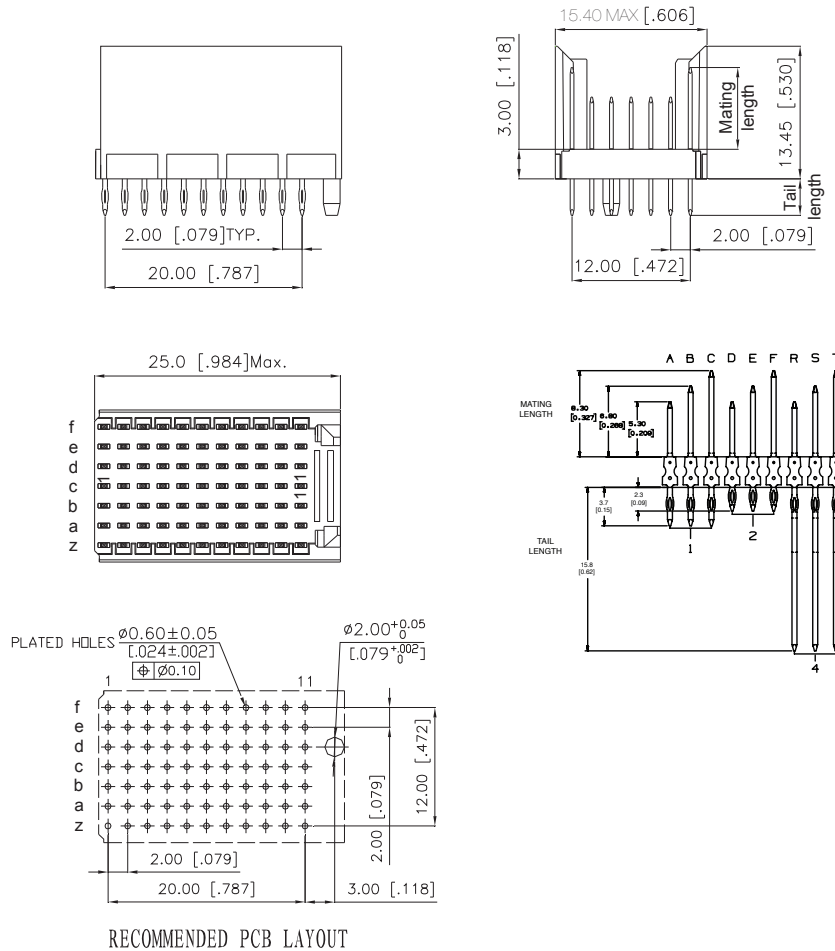
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3M™ CP2 Press-Fit Header

2 mm Type C, 55 Signal Contacts, Left Guidance

CP2 Series



• 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= 2.3 mm

4= 15.8 mm

Plating Options

FJ = 10 ~ 20 μ " Gold Contact Area

100 ~ 200 μ " Matte Tin

50 ~ 80 μ " Nickel Underplate

(RIA E1 & C1 apply)

KR = 30 ~ 40 μ " Gold Contact Area

100 ~ 200 μ " Matte Tin

50 ~ 80 μ " Nickel Underplate

(RIA E1 & C1 apply)

KV = 30-40 μ " Mate End Gold Contact area

Gold Flash Tail Contact area

50-80 μ " 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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