

3M™ HDC Header

.100" Vertical Mount, PCB/Backplane, Solder Tail or Press-Fit

HDC Series



- High density, up to 240 contacts single bay
- Early Mate Late Break (EMLB) grounding contacts for hot swapping
- Mates with three-row and four-row sockets
- RoHS* compliant. See the Regulatory Information Appendix (RIA) in the "RoHS compliance" section of www.3Mconnector.com for compliance information (RIA E1 & C1 apply)

Date Modified: April 14, 2010

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Physical

Insulation:

Material: Glass Filled Thermoplastic (LCP)

Flammability: UL 94V-0

Color: Black

Contact:

Material: Copper Alloy

Plating:

Underplating: 50 μ " [1.27 μ m] min. Nickel

Wiping Area: See Ordering Information

Termination Area: See Ordering Information

Marking: Part Number and Date Code

Electrical

Current Rating: 3.0 A

Insulation Resistance: 1×10^3 M Ω min. at 500 V_{DC}

Withstanding Voltage: 900 V_{AC} for 1 minute

Environmental

Temperature Rating: -55°C to +105°C

Process Rating: Maximum 260°C (per J-STD-020C)

Moisture Sensitivity Level: 1 (per J-STD-020C)

UL File No.: E68080

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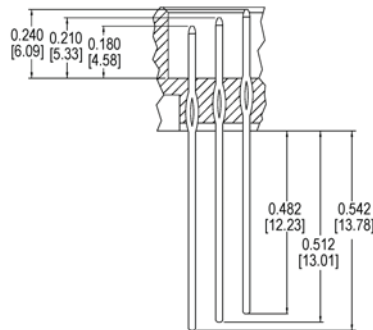
HDC Series

| Product Table/Dimensions for 3 Row, Single Bay | | | | | |
|--|--------------|-------------------|-------------------|-------------------|-------------------|
| Description | Pin Quantity | A | B | C | D |
| HDC-H045-31XX-XXXX | 45 | 2.250 [57.15] | 1.950 [49.53] | 1.400 [35.56] | 1.550 [39.37] |
| HDC-H072-31XX-XXXX | 72 | 3.150 [80.01] | 2.850 [72.39] | 2.300 [58.42] | 2.300 [62.23] |
| HDC-H075-31XX-XXXX | 75 | 3.250 [82.55] | 2.950 [74.93] | 2.400 [60.96] | 2.550 [64.77] |
| HDC-H090-31XX-XXXX | 90 | 3.750 [95.25] | 3.450 [87.63] | 2.900 [73.66] | 3.050 [77.47] |
| HDC-H096-31XX-XXXX | 96 | 3.950 [100.33] | 3.650 [92.71] | 3.100 [78.74] | 3.250 [82.55] |
| HDC-H102-31XX-XXXX | 102 | 4.150 [105.41] | 3.850 [97.79] | 3.300 [83.82] | 3.450 [87.63] |
| HDC-H120-31XX-XXXX | 120 | 4.750 [120.65] | 4.450 [113.03] | 3.900 [113.03] | 4.050 [102.87] |
| HDC-H135-31XX-XXXX | 135 | 5.250 [133.35] | 4.950 [125.73] | 4.400 [111.76] | 4.550 [115.57] |

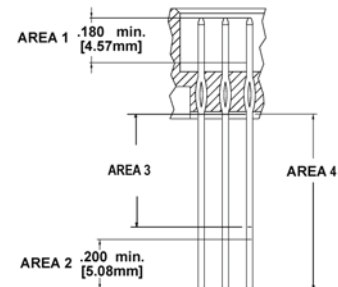
| Description | Pin Quantity | A | B | C | D |
|--------------------|--------------|-------------------|-------------------|-------------------|-------------------|
| HDC-H150-31XX-XXXX | 150 | 5.750 [146.05] | 5.450 [138.43] | 4.900 [124.46] | 5.050 [128.27] |
| HDC-H165-31XX-XXXX | 165 | 6.250 [158.75] | 5.950 [151.13] | 5.400 [137.16] | 5.550 [140.97] |
| HDC-H180-31XX-XXXX | 180 | 6.750 [171.45] | 6.450 [163.83] | 5.900 [149.86] | 6.050 [153.67] |
| HDC-H195-31XX-XXXX | 195 | 7.250 [184.15] | 6.950 [176.53] | 6.400 [162.56] | 6.550 [166.37] |
| HDC-H210-31XX-XXXX | 210 | 7.750 [196.85] | 7.450 [189.23] | 6.900 [175.26] | 7.050 [179.07] |
| HDC-H225-31XX-XXXX | 225 | 8.250 [209.55] | 7.950 [201.93] | 7.400 [187.96] | 7.550 [191.77] |
| HDC-H228-31XX-XXXX | 228 | 8.350 [212.09] | 8.050 [204.47] | 7.500 [190.50] | 7.650 [194.31] |
| HDC-H240-31XX-XXXX | 240 | 8.750 [222.25] | 8.450 [214.63] | 7.900 [200.66] | 8.050 [204.47] |



PCB HOLE SPECIFICATION FOR COMPLIANT PIN INSTALLATION



EXAMPLE "EMLB"



Plating Description

Ordering Information

HDC - HXXX - X1XX - XXXX

Pin Quantity:
See Table

Row Options
3 = 3 Rows
4 = 4 Rows

Insulator Options
1 = Single bay
insulator

Termination Style / Lead length - Dim. F
P1 - Press-fit / 0.200" (5.08)
P2 - Press-fit / 0.533" (13.54)
S1 - Solder Tail / 0.190" (4.83)

Plating Options:
(See Plating Chart)

| Plating Chart (S1 & P1 Termination Styles ONLY) | | | |
|---|------------------------|--------------------------|---|
| Plating Suffix | Press-Fit Terminations | Solder Tail Terminations | Plating composition |
| TG30 | (RIA E2 & C2 apply) | (RIA E3 & C2 apply) | 30 μ" [0.76 μm] Min. Au Area 1 100 μ" [2.54 μm] Min. Tin Lead Tail Area 4 50 μ" [1.27 μm] Min. Ni all over |
| KR | (RIA E1 & C1 apply) | (RIA E1 & C1 apply) | 30 μ" [0.76 μm] Min. Au on Area 1 100 μ" [2.54 μm] Min. Whisker Mitigating Matte Tin on Area 4 50 μ" [1.27 μm] Min. Ni all over |

| Plating Chart (P2 Termination Styles ONLY) | | | |
|--|------------------------|--------------------------|--|
| Plating Suffix | Press-Fit Terminations | Solder Tail Terminations | Plating composition |
| KV | (RIA E1 & C1 apply) | (RIA E1 & C1 apply) | 30 μ" [0.76 μm] Min. Au on area 1 30 μ" [0.76 μm] Min. Au on area 2 3 μ" [0.08 μm] Min. Au on area 3 50 μ" [1.27 μm] Min. Ni all over |

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3M™ HDC Header

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HDC Series

4-Row Single Bay



RECOMMENDED P.C.B. HOLE PATTERN

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3M™ HDC Header

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HDC Series

| Product Table/Dimensions for 4-Row, Single Bay | | | | | |
|--|--------------|-------------------|-------------------|-------------------|-------------------|
| Description | Pin Quantity | A | B | C | D |
| HDC-H060-41XX-XXXX | 60 | 2.250 [57.15] | 1.950 [49.53] | 1.400 [49.53] | 1.550 [39.37] |
| HDC-H076-41XX-XXXX | 76 | 2.650 [67.31] | 2.350 [59.69] | 1.800 [45.72] | 1.950 [49.53] |
| HDC-H080-41XX-XXXX | 80 | 2.750 [69.85] | 2.450 [62.23] | 1.900 [48.26] | 1.900 [52.07] |
| HDC-H100-41XX-XXXX | 100 | 3.250 [82.55] | 2.950 [74.93] | 2.400 [60.96] | 2.550 [60.96] |
| HDC-H120-41XX-XXXX | 120 | 3.750 [95.25] | 3.450 [87.63] | 2.900 [73.66] | 3.050 [87.63] |
| HDC-H128-41XX-XXXX | 128 | 3.950 [100.33] | 3.650 [92.71] | 3.100 [78.74] | 3.250 [82.55] |
| HDC-H140-41XX-XXXX | 140 | 4.250 [107.95] | 3.950 [100.33] | 3.400 [86.36] | 3.550 [90.17] |
| HDC-H160-41XX-XXXX | 160 | 4.750 [120.65] | 4.450 [113.03] | 3.900 [99.06] | 4.050 [102.87] |
| HDC-H168-41XX-XXXX | 168 | 4.950 [125.73] | 4.650 [118.11] | 4.100 [104.14] | 4.250 [107.95] |
| HDC-H180-41XX-XXXX | 180 | 5.250 [133.35] | 4.950 [125.73] | 4.400 [111.76] | 4.550 [115.57] |
| HDC-H200-41XX-XXXX | 200 | 5.750 [146.05] | 5.450 [138.43] | 4.900 [124.46] | 5.050 [128.27] |
| HDC-H216-41XX-XXXX | 216 | 6.150 [156.21] | 5.850 [148.59] | 5.300 [134.62] | 5.450 [138.43] |
| HDC-H220-41XX-XXXX | 220 | 6.250 [158.75] | 5.950 [151.13] | 5.400 [137.16] | 5.550 [140.97] |
| HDC-H240-41XX-XXXX | 240 | 6.750 [171.45] | 6.450 [163.83] | 5.900 [149.86] | 6.050 [149.86] |
| HDC-H260-41XX-XXXX | 260 | 7.250 [184.15] | 6.950 [176.53] | 6.400 [162.56] | 6.550 [166.37] |
| HDC-H280-41XX-XXXX | 280 | 7.750 [196.85] | 7.450 [189.23] | 6.900 [175.26] | 7.050 [179.07] |
| HDC-H300-41XX-XXXX | 300 | 8.250 [209.55] | 7.950 [209.55] | 7.400 [187.96] | 7.550 [191.77] |
| HDC-H320-41XX-XXXX | 320 | 8.750 [222.25] | 8.450 [214.63] | 7.900 [200.66] | 8.050 [204.47] |

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