

# 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](http://www.3Mconnector.com) for compliance information (RIA E1 & C1 apply)

Date Modified: April 14, 2010

TS-1136-D  
Sheet 1 of 5

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## Physical

**Insulation:**

Material: Glass Filled Thermoplastic (LCP)

Flammability: UL 94V-0

Color: Black

**Contact:**

Material: Copper Alloy

**Plating:**

Underplating: 50  $\mu$ " [ 1.27  $\mu$ m ] min. Nickel

Wiping Area: See Ordering Information

Termination Area: See Ordering Information

**Marking:** Part Number and Date Code

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## Electrical

**Current Rating:** 3.0 A

**Insulation Resistance:**  $1 \times 10^3$  M  $\Omega$  min. at 500 V<sub>DC</sub>

**Withstanding Voltage:** 900 V<sub>AC</sub> for 1 minute

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## 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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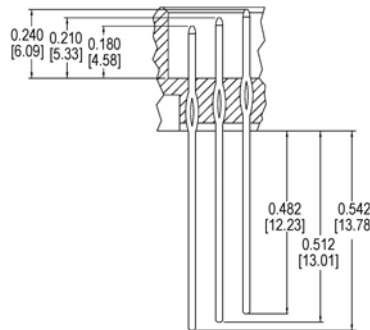
HDC Series

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]

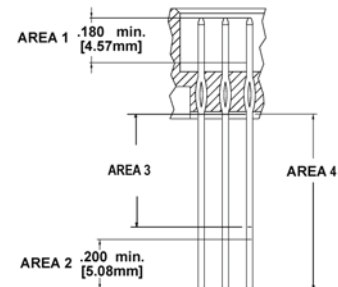
Description	Pin Quantity	A	B	C	D
HDC-H150-31XX-XXXX	150	5.750 [146.05]	5.450 [138.43]	4.900 [124.46]	5.050 [128.27]
HDC-H165-31XX-XXXX	165	6.250 [158.75]	5.950 [151.13]	5.400 [137.16]	5.550 [140.97]
HDC-H180-31XX-XXXX	180	6.750 [171.45]	6.450 [163.83]	5.900 [149.86]	6.050 [153.67]
HDC-H195-31XX-XXXX	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

TS-1136-D  
Sheet 3 of 5

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## 4-Row Single Bay



RECOMMENDED P.C.B. HOLE PATTERN

TS-1136-D  
Sheet 4 of 5

# 3M™ HDC Header

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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]

TS-1136-D  
Sheet 5 of 5

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