3M™ HM PRESS-FIT HEADER, 8-ROW, HM SERIES

FOR HARD METRIC APPLICATIONS

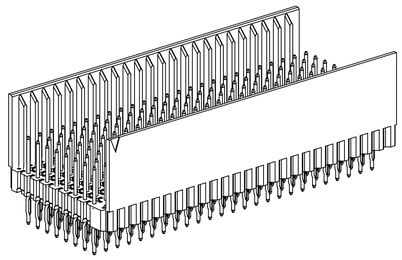
* MODULAR/SCALABLE FORMAT IEC 61076-4-101
* PRESS-FIT OF SOLDER TAIL VERSION
* 101 MATED LINES PER INCH
* SHIPS WITH PROTECTIVE CAP, WHICH ALSO SERVIES AS AN INSERTION TOOL
* END-TO-END STACKABLE WITH 8 ROW 3M™ HM AND HSHM PRODUCTS
* INTEGRATED GUIDE AND GUIDE PIN
* MULTI-PURPOSE CENTER (MPC) KEYING AND GUIDANCE
* FOUR INTEGRATED 8.25 A POWER CONTACTS AND GUIDE PIN

NOTES

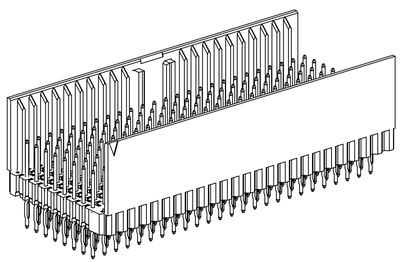
1. MATERIAL:
PLASTIC: HIGH TEMP LCP, UL94V-0
PINS: COPPER ALLOY.

2. REGULATORY INFORMATION:
ROHS COMPLIANT. SEE THE REGULATORY INFORMATION APPENDIX (RIA) IN THE "ROHS COMPLIANCE" SECTION OF WWW.3MCONNECTORS.COM FOR COMPLIANCE INFORMATION (RIA E1 & C1 APPLY)

3 IN THE EVENT OF CONFLICT BETWEEN THIS DATA AND THAT CONTAINED IN THE PRODUCT SPECIFICATION, THE PRODUCT SPECIFICATION TAKES PRECEDENT.



HM-H200E1-8CX1
HM-H244E2-8BX1



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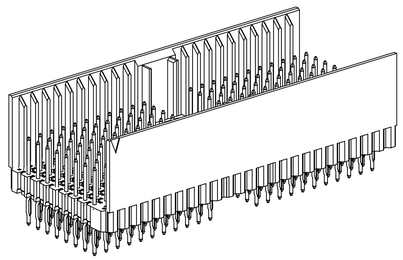

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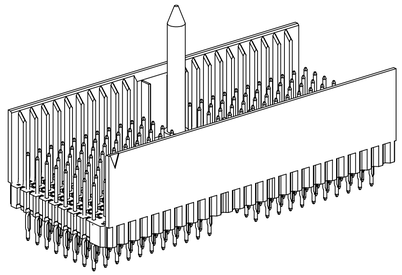

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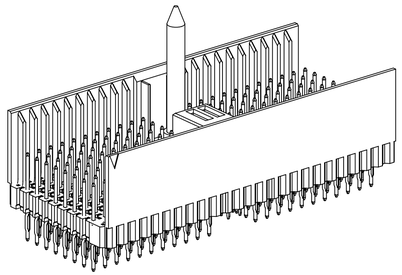

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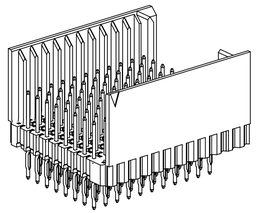
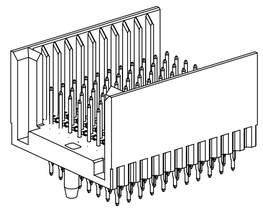


HM-H088FL1-8CX1
HM-H110FL2-8BX1



HM-H088FR1-8CX1
HM-H110FR2-8BX1

3 MECHANICAL:

NORMAL FORCE (NOMINAL):	.57N [58g] SIGNAL
ENGAGEMENT FORCE (NOMINAL):	.32N [33g] SIGNAL
SEPARATION FORCE (NOMINAL):	.20N [20g] SIGNAL
WIPE (NOMINAL, SHORTEST CONTACT):	2.67 [.105] SIGNAL
MATE/UNMATE CYCLES:	250
APPLICATION:	THIS MODULE IS NOT SUITABLE FOR STAND-ALONE USE. (REFER TO IEC-61076-4-101)

3 ELECTRICAL:

CURRENT RATING (FULLY LOADED):	1A @ 70°C SIGNAL
INSULATION RESISTANCE:	1×10^4 MΩ @ 100 V_{DC}
WITHSTANDING VOLTAGE:	750V_{RMS}

3 ENVIRONMENTAL:

TEMPERATURE RATING:	-55°C TO 125°C
PROCESS RATING:	MAX. 260°C (PER J-STD-020C)
WITHSTANDING VOLTAGE:	1 (PER J-STD-020C)

(UNLESS OTHERWISE SHOWN)

ORDERING INFORMATION

(ROWS 1 AND Z NOT LOADED)

HM-HXXXXX1-8CX1-XXXXX

- HEADER POSITION AND TYPE
- TAIL STYLE: P = PRESS-FIT TAIL, S = SOLDER TAIL
- PLATING

(UNLESS OTHERWISE SHOWN)

ORDERING INFORMATION

(ROWS 1 AND Z LOADED, 8.3MM MATE LENGTH)

HM-HXXXXX2-8BX1-XXXXX

- HEADER POSITION AND TYPE
- TAIL STYLE: P = PRESS-FIT TAIL, S = SOLDER TAIL
- PLATING

PLATING SPECIFICATIONS:

TG30L = .76μM [30μIN] MIN. GOLD ON CONTACT AREA, LUBRICATED
2.54μM [100μIN] MIN. TIN/LEAD ON TERMINAL AREA (RIA C2 & E2 APPLY)
1.27μM [50μIN] MIN. NICKEL ALL OVER.
TYPICALLY HIGHER MAKE ORDER QUANTITIES AS COMPARED TO TG30.

TG30 = .76μM [30μIN] MIN. GOLD ON CONTACT AREA
2.54μM [100μIN] MIN. TIN/LEAD ON TERMINAL AREA (RIA C2 & E2 APPLY)
1.27μM [50μIN] MIN. NICKEL ALL OVER.
STANDARD OPTION.

TG50 = 1.27μM [50μIN] MIN. GOLD ON CONTACT AREA, LUBRICATED
2.54μM [100μIN] MIN. TIN/LEAD ON TERMINAL AREA (RIA C2 & E2 APPLY)
1.27μM [50μIN] MIN. NICKEL ALL OVER.
NON-STANDARD OPTION (AVAILABLE WITH LONGER LEAD TIMES AND HIGHER MAKE ORDER QUANTITIES, MOQ)

KR = .76μM [30μIN] MIN. GOLD ON CONTACT AREA
2.54μM [100μIN] MIN. MATTE TIN ON TERMINAL AREA (RIA C2 & E2 APPLY)
1.27μM [50μIN] MIN. NICKEL ALL OVER.

3M™ ELECTRONIC SOLUTIONS DIVISION
INTERCONNECT SOLUTIONS
http://www.3mconnectors.com

FOR TECHNICAL, SALES OR ORDERING INFORMATION CALL 800-225-5373

UL FILE NO: E68080

DIMENSIONS: MM [INCHES]

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
A	39815	MAR 28,2012 PRODUCTION RELEASE	JNC	TS

DESIGN REFERENCE | NEXT ASSEMBLY

DRFT: CASTIGLIONE, DATE: MAR 28,2012 | MFG | DATE
CHKD | DATE | APPVL: T. SUNIGA, DATE: MAR 28,2012

DIVISION: Interconnect Solutions
DIVISION CODE: ISD
DO NOT SCALE DRAWING | SCALE: NONE
TOLERANCES EXCEPT AS NOTED
INCHES: .0 ± | .00 ± .01 | .000 ± .005 | .0000 ±
MILLIMETERS: 0 ± | .0 ± .3 | .00 ± .13 | .000 ±
THIRD ANGLE PROJECTION
INTERPRET PER ASME Y14.5 - 1994
MAX SURFACE ROUGHNESS: ☐ ALL SURFACES ☐ MARKED ONLY
ANGLES ±

3M Center, St. Paul, MN 55144

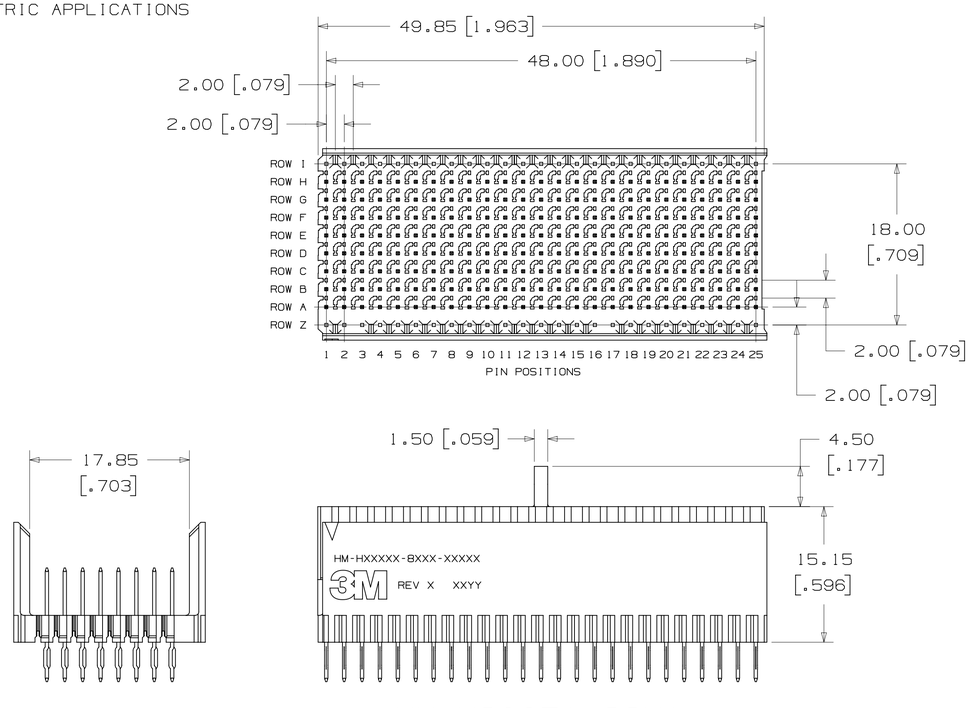
TITLE: HM PRESS-FIT HEADER, 8-ROW, HM SERIES

CAGE NUMBER | SIZE: D | DRAWING NO.: 78-5100-2517-0 | REV.: A
MODEL | DET. LISTS ☐ YES ☒ NO | SHT 1 OF 4

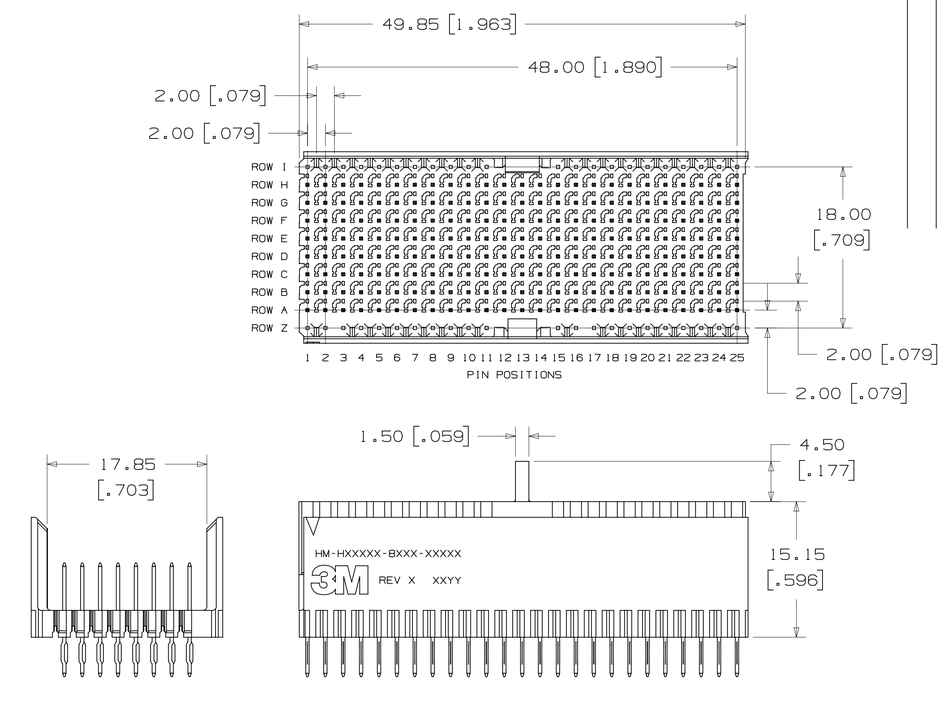
78-5100-2517-0 DRAWING NUMBER | A REVISION

3M™ HM PRESS-FIT HEADER, 8-ROW, HM SERIES

FOR HARD METRIC APPLICATIONS



HM-H200E1-8CX1
HM-H244E2-8BX1



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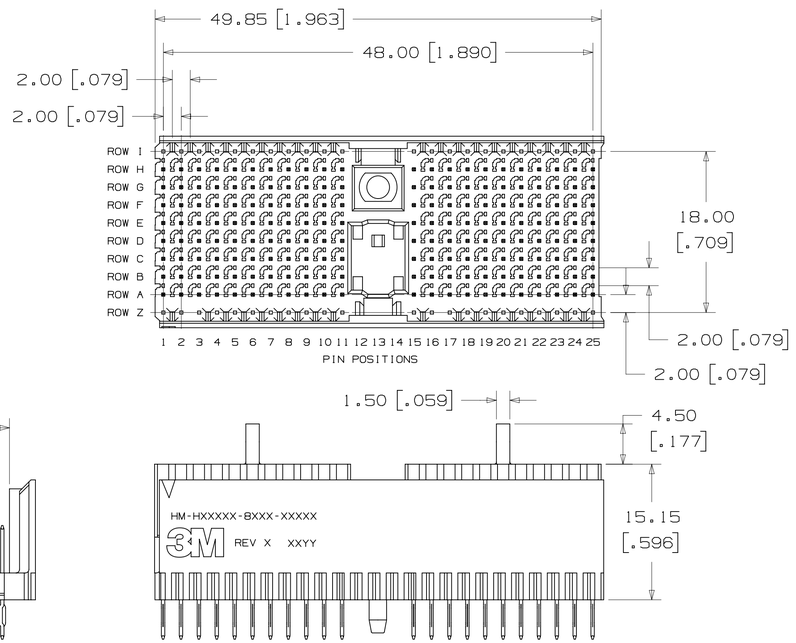

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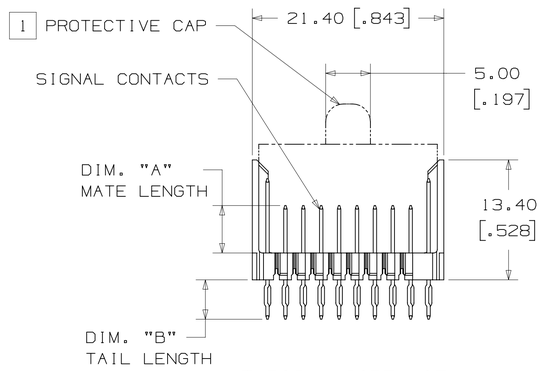
HM-H220D2-8BX1



TYPICAL SIDE VIEW
DIMENSIONS FOR THE
HEADERS ON THIS DRAWING

STANDARD CONFIGURATION

DIM. "A"	5.3 [.21]	FOR ROWS A THRU H
DIM. "B"	4.4 [.17]	EXCEPT AS NOTED

FOR NON-STANDARD CONFIGURATIONS
CONTACT A 3M SALES REPRESENTATIVE

NOTES

1. CAPS TO BE REMOVED AFTER PRESS-FIT INSTALLATION PROCESS.

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
A	39815	MAR 28,2012 PRODUCTION RELEASE	JNC	TS

DESIGN REFERENCE | NEXT ASSEMBLY

DRFT: CASTIGLIONE DATE: MAR 28,2012 MFG: DATE:
CHKD: DATE: APPVL: T. SUNIGA DATE: MAR 28,2012

DISTRIBUTION CODES:
DIVISION: Interconnect Solutions
DIVISION CODE: 1SD

DO NOT SCALE DRAWING | SCALE 3 1

TOLERANCES EXCEPT AS NOTED
INCHES: .0 ± / .00 ± .01 / .000 ± .005 / .0000 ±
THIRD ANGLE PROJECTION
INTERPRET PER ASME Y14.5 - 1994
MILLIMETERS: 0 ± / .0 ± .3 / .00 ± .13 / .000 ±
MAX SURFACE ROUGHNESS ☐ ALL SURFACES ☐ MARKED ONLY
ANGLES ±

TITLE: HM PRESS-FIT HEADER, 8-ROW, HM SERIES

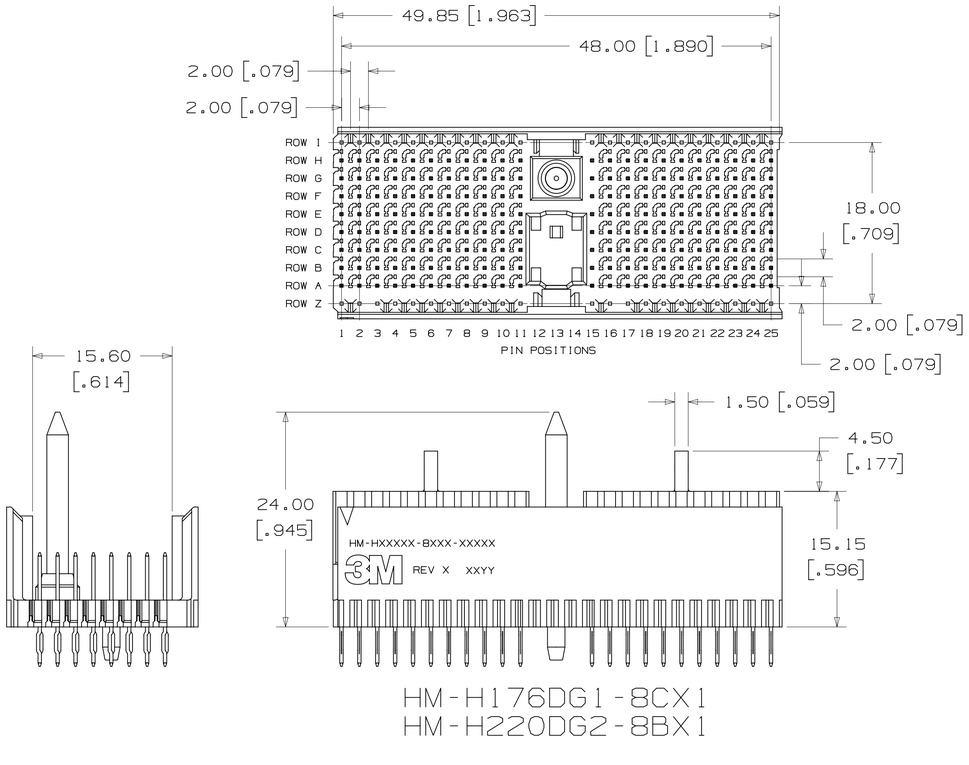
CAGE NUMBER | SIZE D | DRAWING NO. 78-5100-2517-0 | REV. A

MODEL | DET. LISTS ☐ YES ☒ NO | SHT 2 OF 4

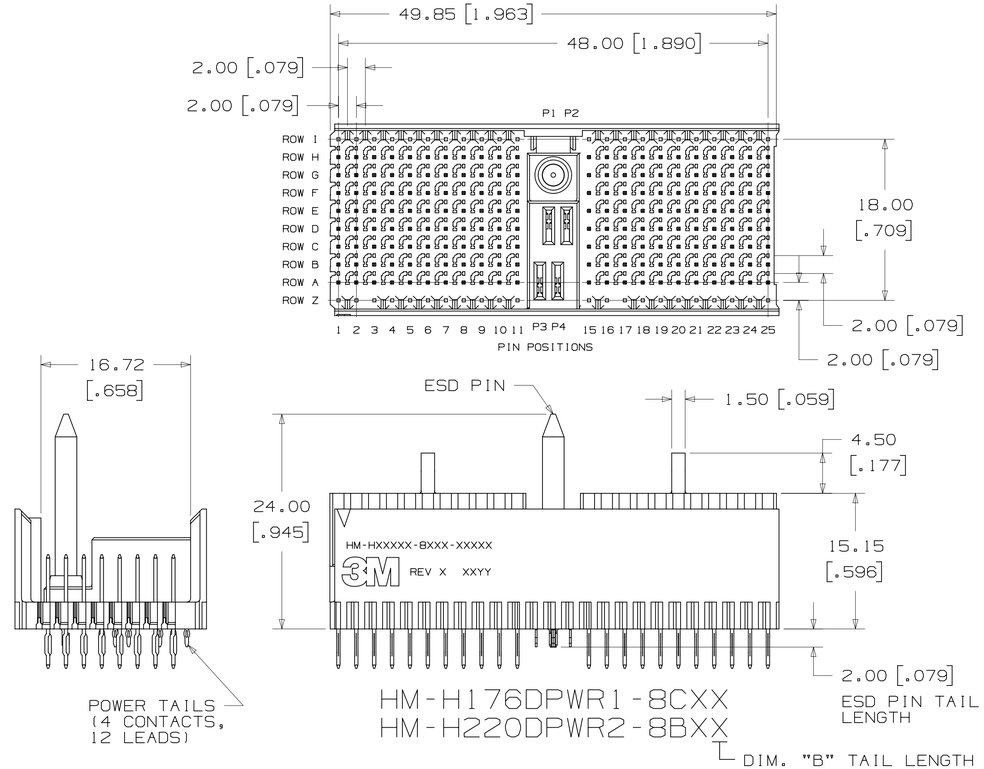
78-5100-2517-0 DRAWING NUMBER | A REVISION

3M™ HM PRESS-FIT HEADER, 8-ROW, HM SERIES

FOR HARD METRIC APPLICATIONS



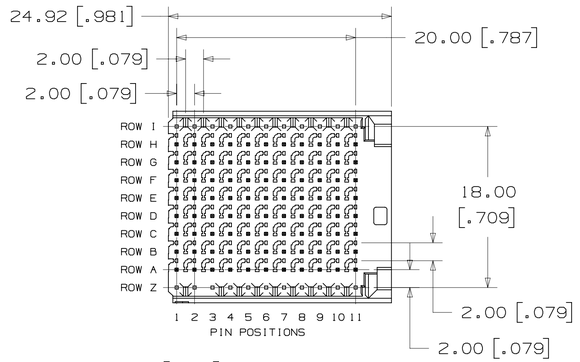
HM-H176DG1-8CX1
HM-H220DG2-8BX1



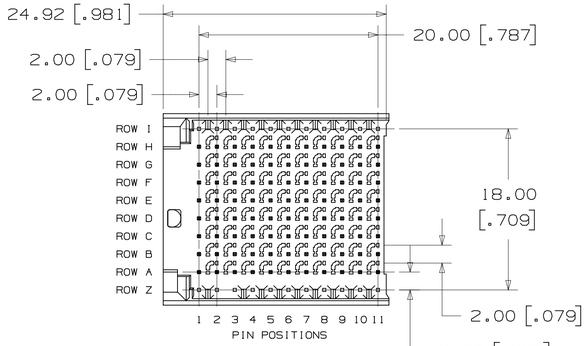
POWER TAILS
(4 CONTACTS,
12 LEADS)

HM-H176DPWR1-8CXX
HM-H220DPWR2-8BXX

DIM. "B" TAIL LENGTH
1 = 4.4 [.17] PIN, 2.0 [.08] POWER
AND 2.0 [.08] ESD
2 = 4.4 [.17] PIN, 4.4 [.17] POWER
AND 2.0 [.08] ESD



HM-H088FL1-8CX1
HM-H110FL2-8BX1



HM-H088FR1-8CX1
HM-H110FR2-8BX1

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DISTRIBUTION CODES

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CASTIGLIONE	MAR 28,2012		
CHKD	DATE	APPVL	DATE
		T. SUNIGA	MAR 28,2012

DIVISION: Interconnect Solutions
DIVISION CODE: ISD

DO NOT SCALE DRAWING | SCALE 3/1

TOLERANCES EXCEPT AS NOTED
INCHES
.0 ±
.00 ±.01
.000 ±.005
.0000 ±
MILLIMETERS
0 ±
.0 ±.3
.00 ±.13
.000 ±
ANGLES ±

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 1994

MAX SURFACE ROUGHNESS
☐ ALL SURFACES
☐ MARKED ONLY

3M Center
St. Paul, MN 55144

TITLE: HM PRESS-FIT HEADER, 8-ROW, HM SERIES

CAGE NUMBER | SIZE D | DRAWING NO. 78-5100-2517-0 | REV. A

MODEL

DET. LISTS ☐ YES ☒ NO | SHT 3 OF 4

78-5100-2517-0 (DATA NO. NUMBER) | A (REVISION)

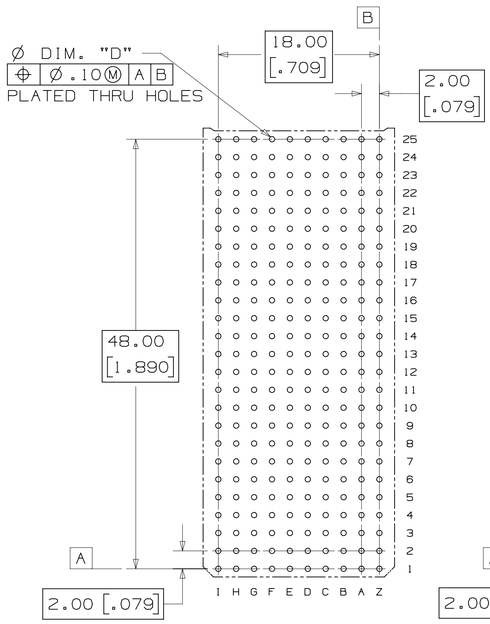
3M™ HM PRESS-FIT HEADER, 8-ROW, HM SERIES

FOR HARD METRIC APPLICATIONS

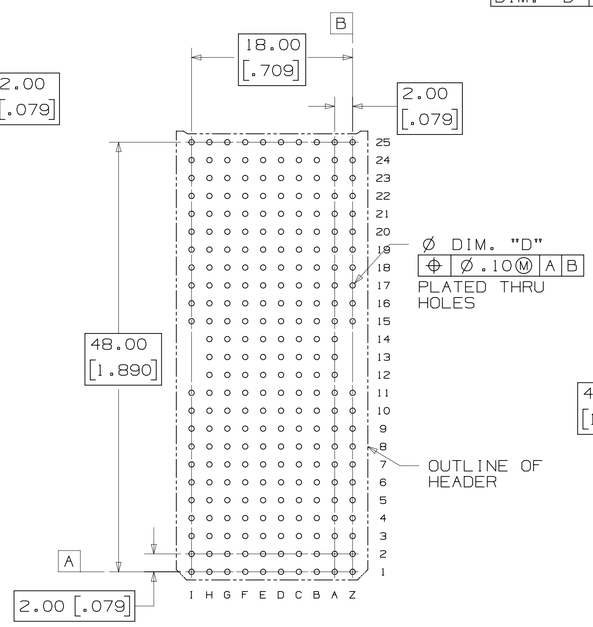
HOLE PLATING TABLE				
HOLE	(FINISHED HOLE)	Cu THICKNESS	SnPb THICKNESS	DRILLED HOLE DIA.
DIM. "B"	.690-.790 [.0270-.0310]	.025-.045 [.0010-.0018]	.008-.018 [.0003-.0007]	.810-.860 [.0320-.0340]
DIM. "D"	.550-.650 [.0217-.0256]	.025-.045 [.0010-.0018]	.008-.018 [.0003-.0007]	.686-.727 [.0270-.0286]

NOTES

1. ROW I AND Z HOLES ARE ONLY USED FOR HM-HXXXX2-8BX1 STYLE HEADER.



HM-H200E1-8CX1
HM-H244E2-8BX1 [1]



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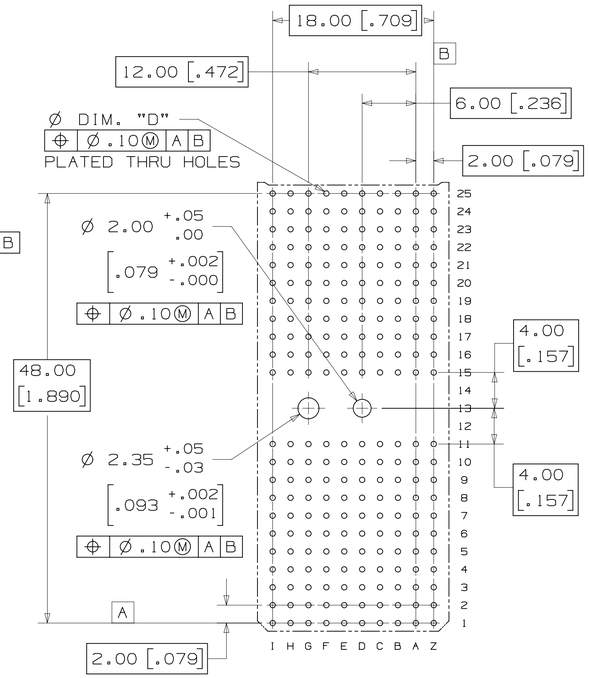
HM-H244DE2-8BX1 [1]



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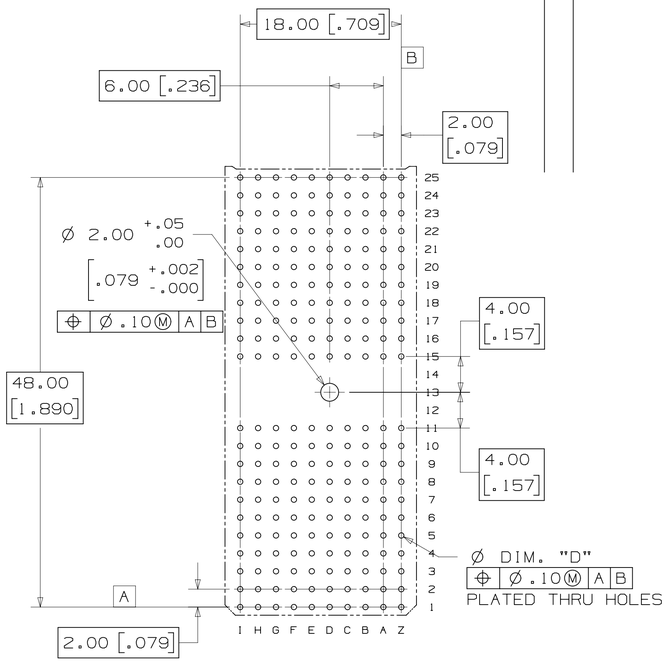

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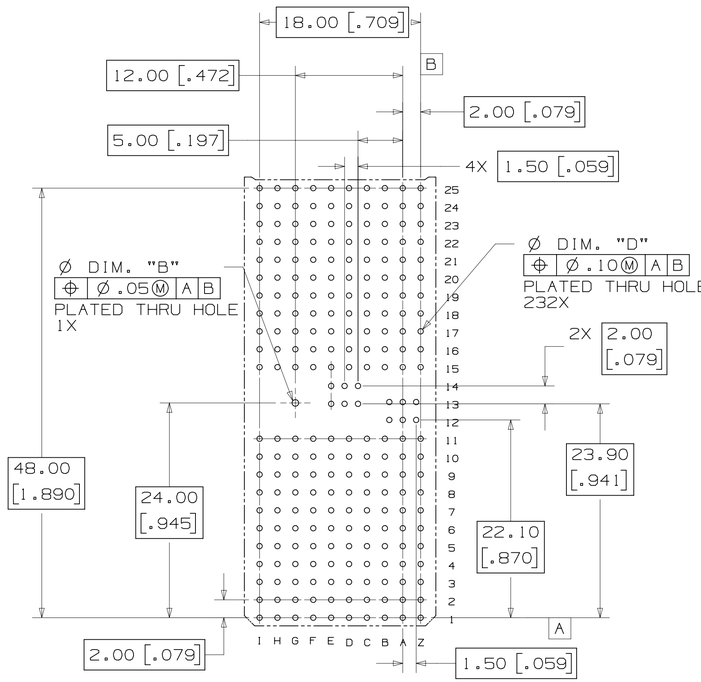

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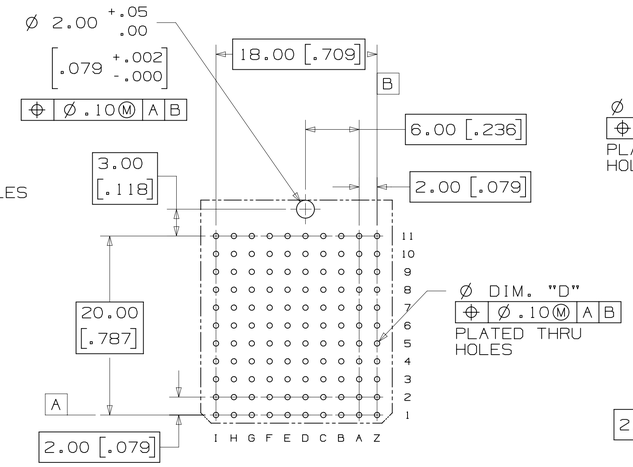
HM-H220DPWR2-8BXX [1]



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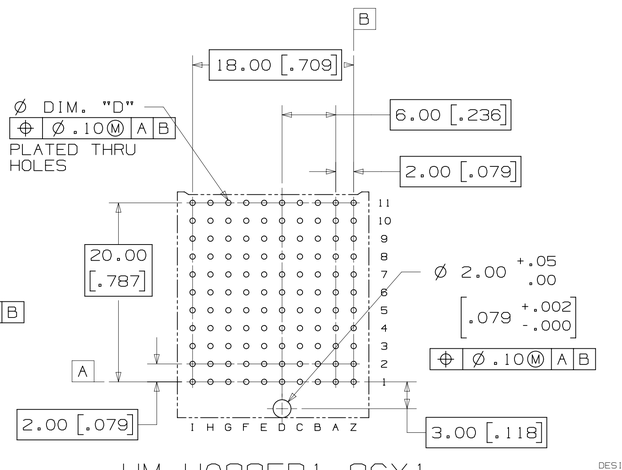

HM-H088FR1-8CX1
HM-H110FR2-8BX1 [1]

RECOMMENDED PCB MOUNTING HOLE PATTERN (VIEWED FROM COMPONENT SIDE)

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
A	39815	MAR 28,2012 PRODUCTION RELEASE	JNC	TS

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CHKD | DATE | APPVL T. SUNIGA | DATE MAR 28,2012

DIVISION: Interconnect Solutions | DIVISION CODE: ISD

DO NOT SCALE DRAWING | SCALE 3/1

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 1994

MAX SURFACE ROUGHNESS ☐ ALL SURFACES ☐ MARKED ONLY √

TOLERANCES EXCEPT AS NOTED

INCHES: .0 ± | .00 ± .01 | .000 ± .005 | .0000 ±

MILLIMETERS: 0 ± | .0 ± .3 | .00 ± .13 | .000 ±

ANGLES ±

3M Center, St. Paul, MN 55144

TITLE: HM PRESS-FIT HEADER, 8-ROW, HM SERIES

CAGE NUMBER | SIZE D | DRAWING NO. 78-5100-2517-0 | REV. A

MODEL | DET LISTS ☐ YES ☒ NO | SHT 4 OF 4

78-5100-2517-0 DRAWING NUMBER | A REVISION