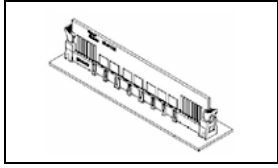


1766308-1 Product Details



1766308-1

TE Internal Number: 1766308-1

Mini CROWN EDGE High Current Connectors

 Always EU RoHS/ELV Compliant (Statement of Compliance)

Product Highlights:

- Board-to-Board, Board-to-Board / Card Edge, Card Edge
- Board-to-Board Configuration = Right Angle
- Connector Style = Receptacle
- Contact Transmits (Typical Application) Power, Contact Transmits (Typical Application) Signal (Data), Contact Transmits (Typical Application) Signal (Data)/Power
- 14/Signal, 14/AC Power, 16/Signal

Documentation & Additional Information

Product Drawings:

- [SOCKET CONNECTOR ASSEMBLY W/LATCHES MC-P14S30, MINI ... \(PDF, English\)](#)

Catalog Pages/Data Sheets:

- [POWER_CONNECTORS_CATALOG_SEC04_VRM \(PDF, English\)](#)

Product Specifications:

- None Available

Application Specifications:

- None Available

Instruction Sheets:

- None Available

CAD Files: (CAD Format & Compression Information)

- [2D Drawing \(DXF, Version E\)](#)
- [3D Model \(IGES, Version E\)](#)
- [3D Model \(STEP, Version E\)](#)

Additional Information:

- [Product Line Information](#)

Related Products:

- [Tooling](#)

Product Features (Please use the Product Drawing for all design activity)

Product Type Features:

- PCB Mount Retention = Without
- Termination Method to PC Board = Through Hole - Solder
- PCB Mounting Orientation = Vertical
- PCB Mount Alignment = With
- Make First / Break Last = No
- CSA File Number = 1935071

Mechanical Attachment:

- Mating Retention Type = Latching

Electrical Characteristics:

- Contact - Rated Current (A) = 25
- Hot Pluggable = No
- Operating Voltage Reference = AC
- Operating Voltage (VAC) = 250

Termination Features:

- Tail Length (mm [in]) = 4.5 [0.177]
- Tail Orientation = Staggered

Dimensions:

- PCB Thickness, Recommended (mm [in]) = 1.57 - 3.175 [0.062 - 0.125]
- Length (X-Axis) (mm [in]) = 129.60 [5.100]
- Width (Z-Axis) (mm [in]) = 9.90 [0.390]
- Profile Height (Y-Axis) (mm [in]) = 20.90 [0.823]
- Card Slot Depth (mm [in]) = 6.00 [0.236]

Body Features:

- Mating Retention = With

Configuration Features:

- Connector Contact Configuration (No. of Pos./Type) = 14/Signal, 14/AC Power, 16/Signal
- Number of Positions = 44
- Number of Signal Positions = 30
- Number of Power Positions = 14
- Custom Configurable = Yes
- Number of Rows = 2

Industry Standards:

- Agency/Standard = UL, CSA
- [RoHS/ELV Compliance](#) = RoHS compliant, ELV compliant
- [Lead Free Solder Processes](#) = Wave solder capable to 260°C, Wave solder capable to 240°C, Wave solder capable to 265°C
- RoHS/ELV Compliance History = Always was RoHS compliant
- Agency/Standard Number = UL 1977
- UL Voltage Rating (VAC) = 250

Environmental:

- Operating Temperature (°C [°F]) = -55 - +105 [-67 - +221]

Conditions for Usage:

- Board-to-Board Configuration = Right Angle
- Accepts Card Width (mm [in]) = 120.4 [4.74]
- Accepts Card Thickness (mm [in]) = 2.36 [0.093]
- Applies To = Printed Circuit Board

Operation/Application:

- Application Use = Board-to-Board, Board-to-Board / Card Edge, Card Edge
- Contact Transmits (Typical Application) = Power, Signal (Data), Signal (Data)/Power

Contact Features:

- Contact Plating, Termination Area, Material = Matte Tin
- Contact Plating, Termination Area, Thickness (μm [μin]) = 3.05 [120]
- Contact Design = Multiple Contact Band/CROWN BAND
- Contact Type = Socket
- Contact Base Material = Copper Alloy
- Contact Plating, Mating Area, Material = Gold
- Contact Plating, Mating Area, Thickness (μm [μin]) = 0.76 [29.92]

Housing Features:

- Connector Style = Receptacle
- Centerline (mm [in]) = 2.50 [0.098]
- Centerline, Power Contacts (mm [in]) = 9.70 [0.381]
- Mating Alignment = With
- Mating Alignment Type = Blindmate, Blindmate/Keyed, Keyed
- Housing Material = Thermoplastic
- Housing Color = Black
- UL Flammability Rating = UL 94V-0

- Pick and Place Cover = Without

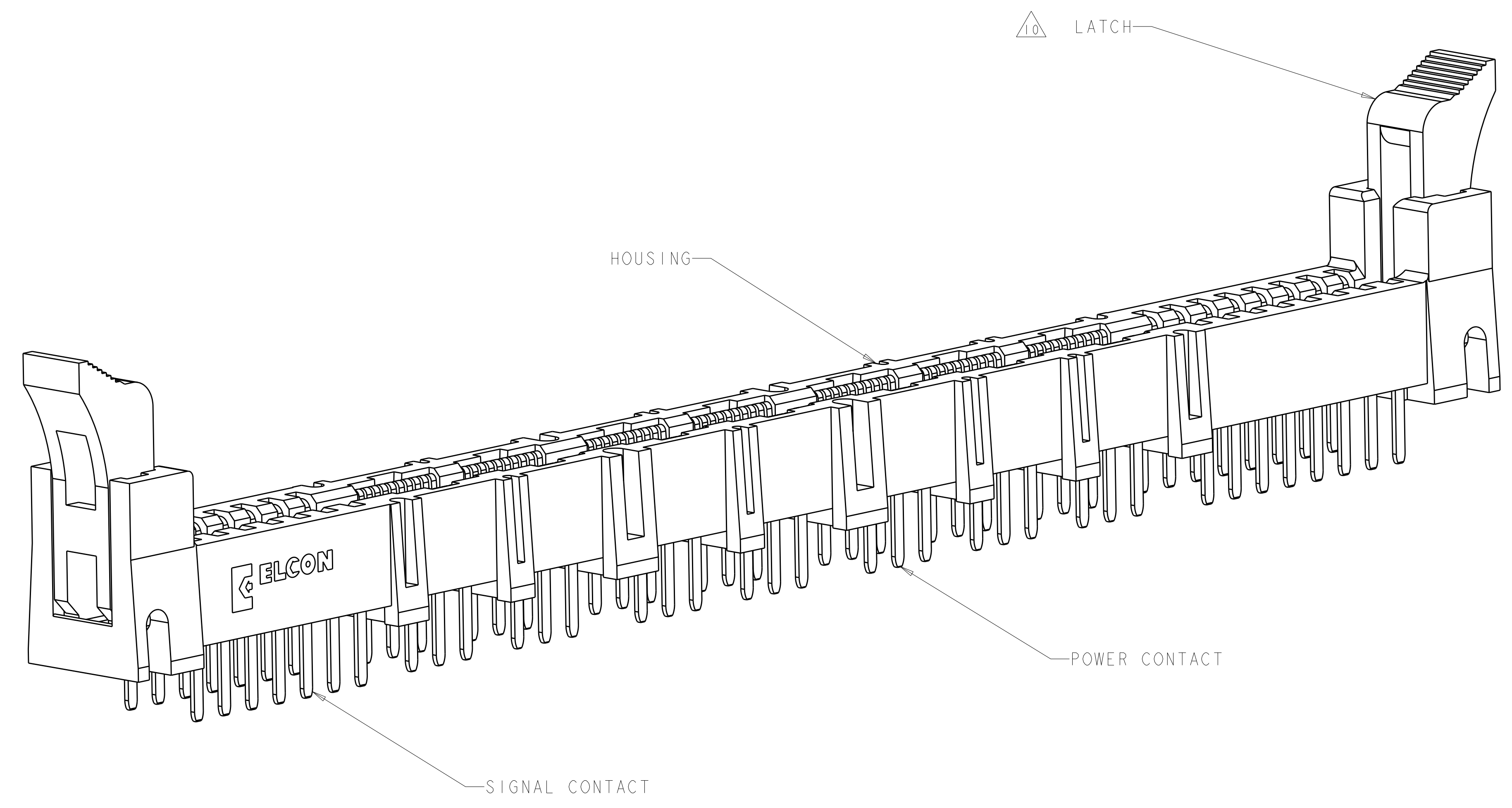
Packaging Features:

- Packaging Method = Tray

Other:

- Brand = TE Connectivity

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1. PART NUMBER CHANGES AND OR DESIGN CHANGES AFFECTING ITEM INTERCHANGEABILITY REQUIRE PRIOR TYCO ELECTRONICS APPROVAL AND AUTHORIZATION BY REVISION TO THIS DRAWING.

△ MATERIAL:
 HOUSING: GLASS FILLED POLYESTER, COLOR-BLACK
 UL94V-0 FLAMMABILITY RATED
 LATCHES: THERMOPLASTIC, GLASS REINFORCED
 COLOR: BLACK, UL94V-0 FLAMMABILITY RATED
 CONTACTS: COPPER ALLOY

△ FINISH:
 CONTACTS:
 GOLD PLATE 0.76µm MIN THK. OVER
 NICKEL 1.27µm MIN THK.
 SOLDER TAILS - TIN PLATE 3.05µm MIN THK. OVER
 NICKEL 1.27µm MIN THK.

4. ITEMS PROVIDED TO THIS SPECIFICATION TO BE PERMANENTLY IDENTIFIED WITH PART NUMBER AND DATE CODE.

△ 5. MAXIMUM BURR OF 0.013 ON CARD TAB AREA.

△ 6. SET TRACE BACK FROM PC BOARD EDGE. NO SOLDERMASK ALLOWED BETWEEN PC BOARD EDGE AND TRACE.

△ 7. CONNECTOR ACCEPTS 2.36±0.13 THICK PC BOARD.

△ 8. KEEP OUT AREA FOR COMPONENTS ONLY.

△ 9. FEATURE REQUIRED FOR USE WITH LATCH.

△ 10. CAUTION:
 LATCHES ARE INTENDED FOR RETENTION OF PC BOARD TO CONNECTOR. DO NOT ATTEMPT TO FULLY EJECT PC BOARD FROM CONNECTOR WHILE DISENGAGING LATCHES, DAMAGE TO LATCHES AND OR CONNECTOR MAY OCCUR.

△ 11. RECOMMENDED GOLD FINGER LENGTH FOR RELIABLE CONTACT.

12. FOR DESIGN OBJECTIVES SEE 108-2301.

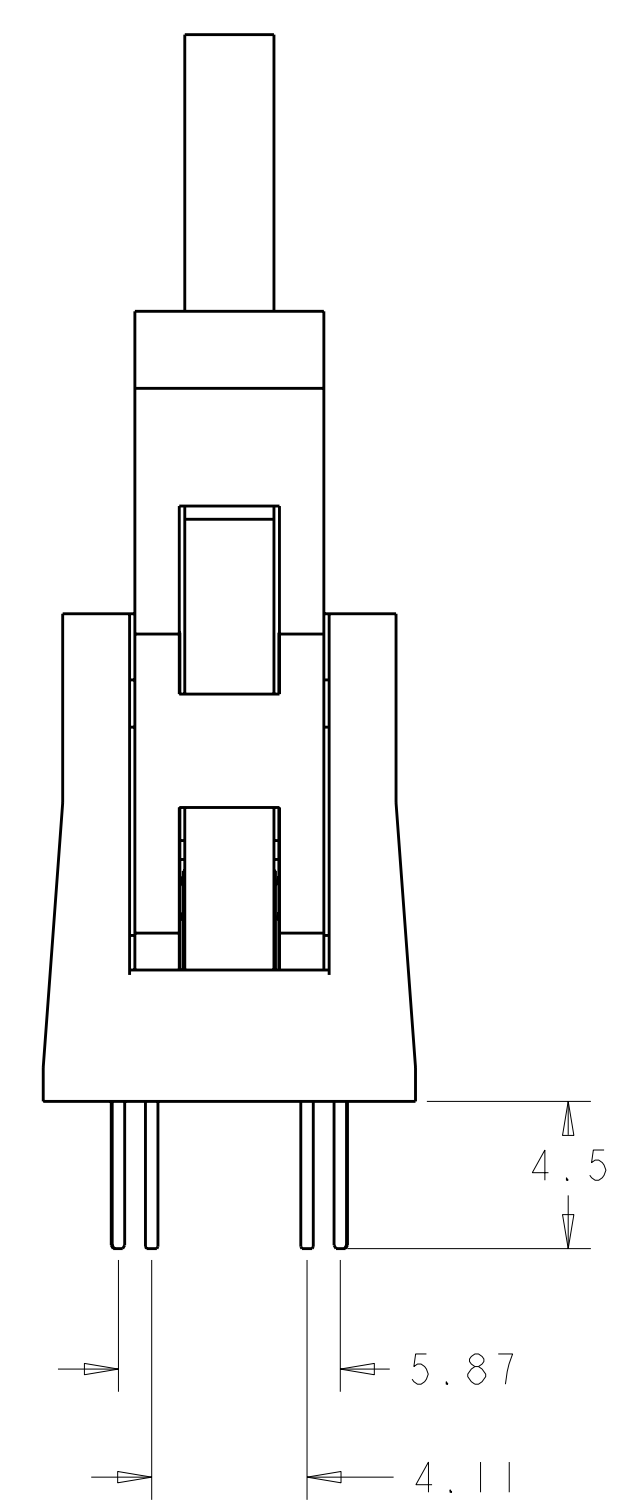
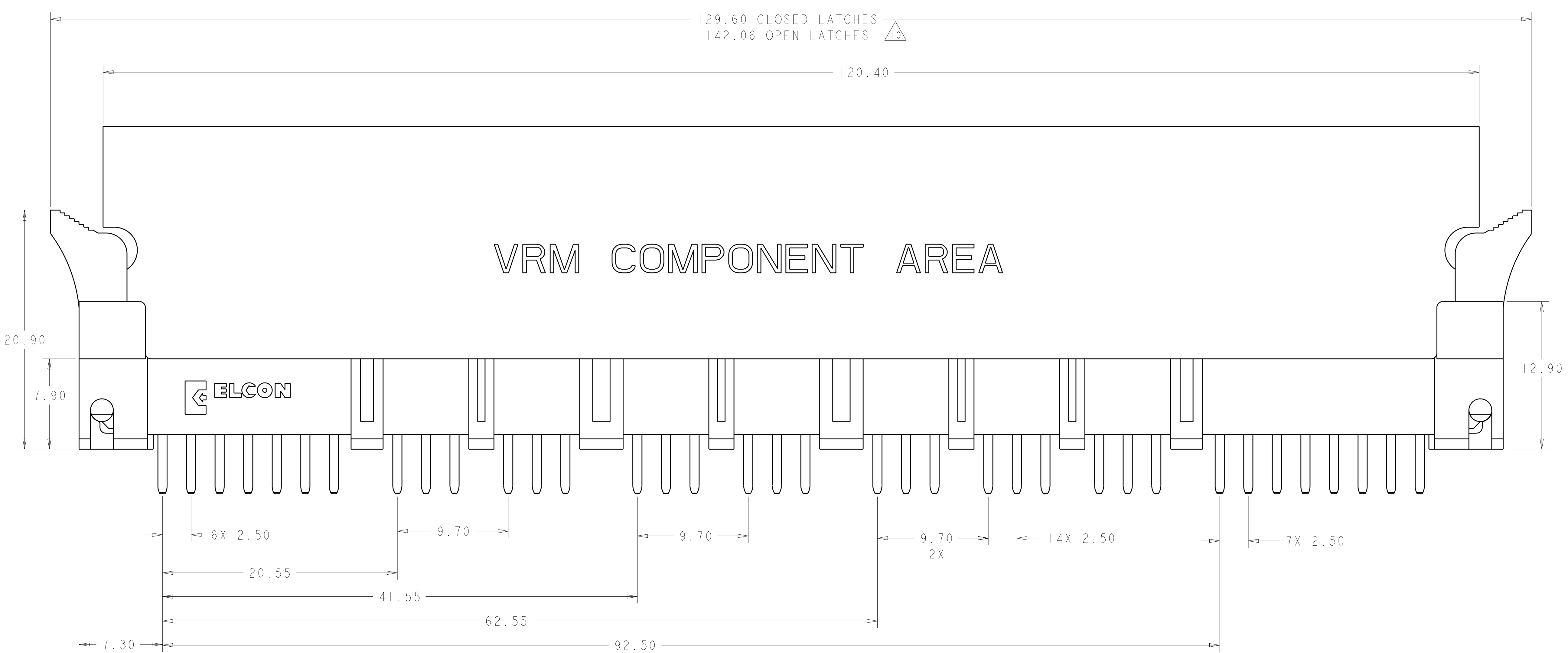
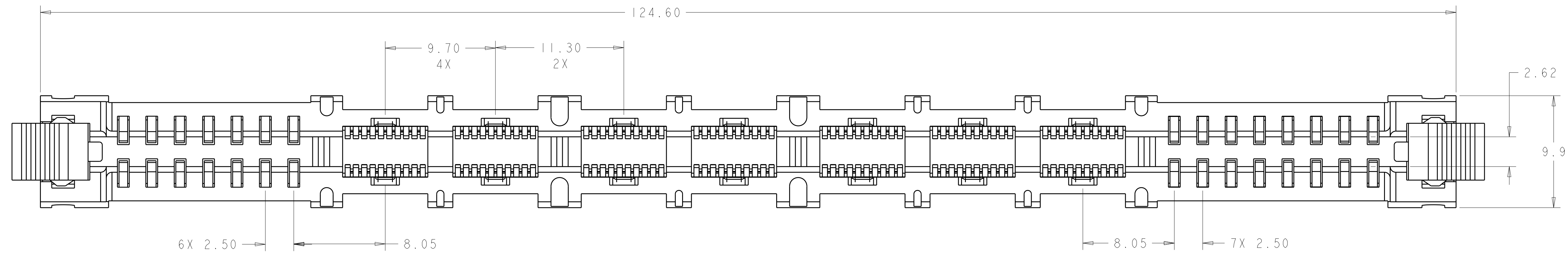
△ 13. RECOMMENDED PRINTED CIRCUIT HOLE:
 FINISHED HOLE: Ø1.02 ±.08
 DRILLED HOLE: Ø1.15 ±.013
 COPPER PLATE: .025 MIN. (PER SURFACE)
 TIN PLATE: .008 MIN (PER SURFACE)

△ 14. DATUMS AND BASIC DIMENSIONS ESTABLISHED BY CUSTOMER

AS SHOWN	1766308-1
DESCRIPTION	PART NO.

<small>THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION 20. THIS IS SUBJECT TO CHANGE WITHOUT NOTICE AND WITHOUT OBLIGATION. SHOULD BE CONTACTED FOR THE LATEST REVISION.</small>		DWN HA/GRZYBOWSKI 08JAN09 CHK P.DAMATO 08JAN09 APVD CHAU/PERCHERRE 08JAN09	Tyco Electronics Harrisburg, PA 17105-3608
DIMENSIONS: mm 	TOLERANCES UNLESS OTHERWISE SPECIFIED: 9 PLC ±.5 1 PLC ±.5 5 PLC ±.25 4 PLC ±.0001 ANGLES ±.5 FINISH	NAME PRODUCT SPEC APPLICATION SPEC WEIGHT	SOCKET CONNECTOR ASSEMBLY W/LATCHES MC-PI4S30, MINI CROWN EDGE SIZE CAGE CODE DRAWING NO A100779C=1766308 CUSTOMER DRAWING
AMP 4805 REV 31MAR2000 PrO/ENGINEER DRAWING		SCALE 5:1 SHEET 1 OF 4 REV F	RESTRICTED TO

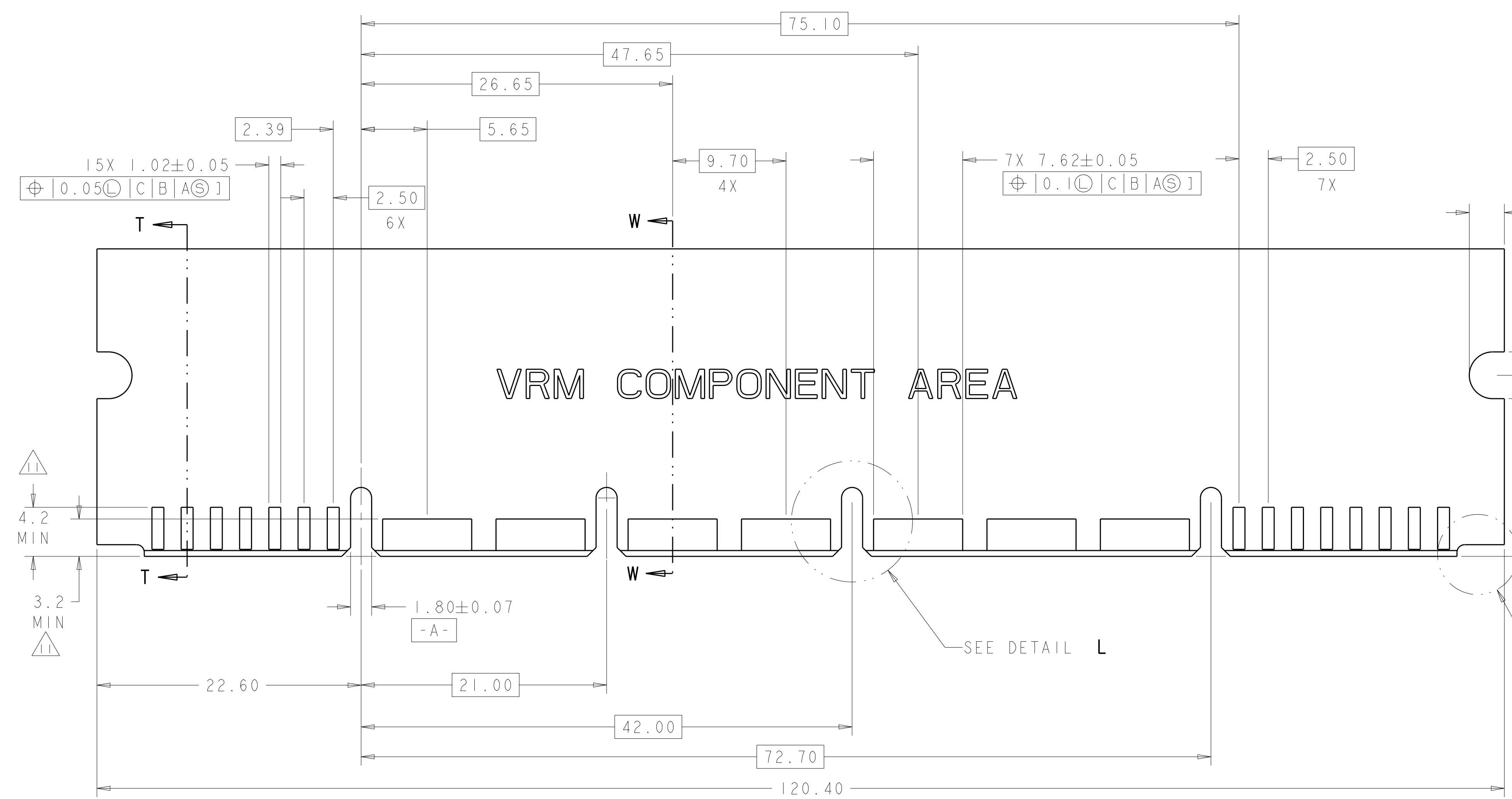
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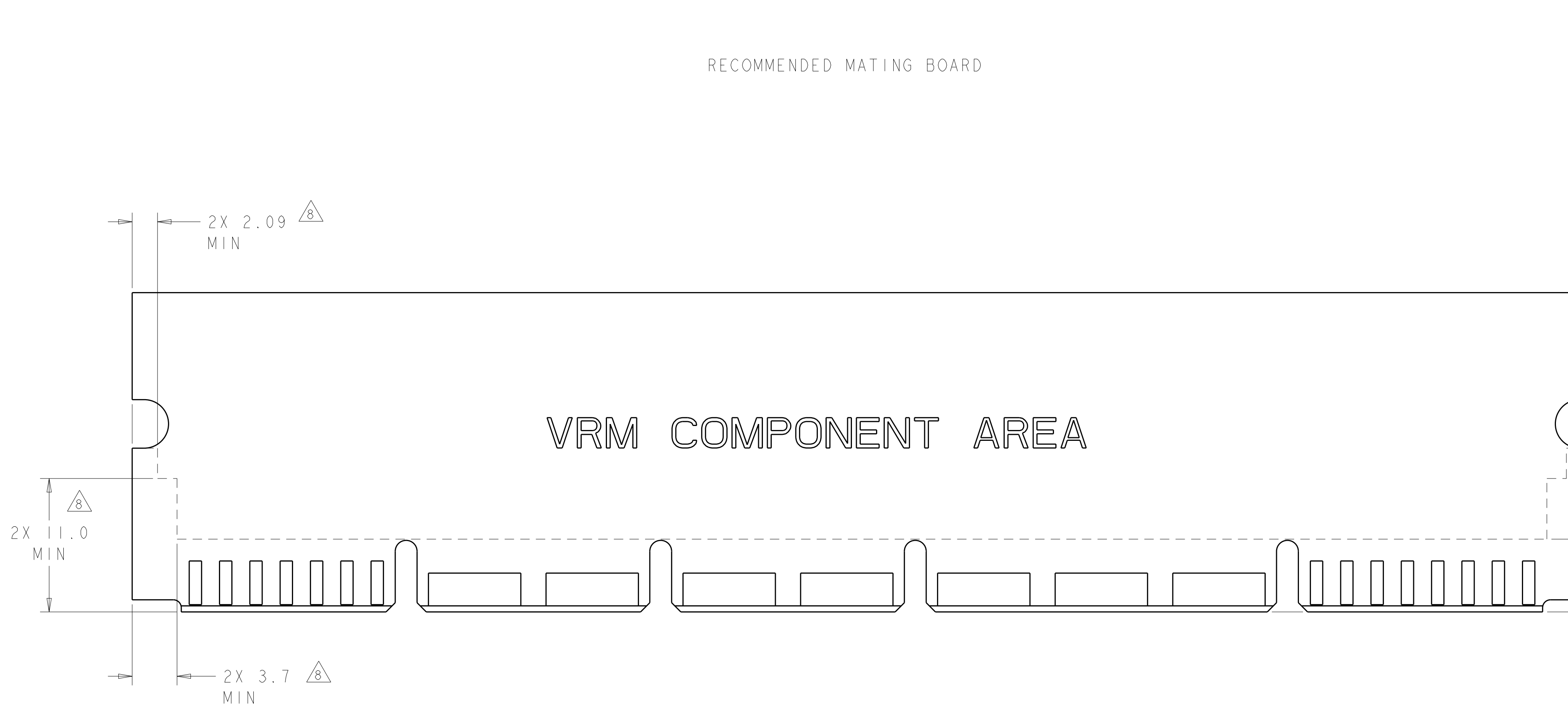
<small>THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION. IT IS SUBJECT TO CHANGE WITHOUT NOTICE AND WITHOUT OBLIGATION. SHOULD BE CONTACTED FOR THE LATEST REVISION.</small>		DWN HA/GRZYBOWSKI 08JAN09 CHK P.DAMATO 08JAN09 APVD CHAU/PERCHERRE 08JAN09	Tyco Electronics Tyco Electronics Harrisburg, PA 17105-3608
DIMENSIONS: mm 		TOLERANCES UNLESS OTHERWISE SPECIFIED: 9 PLC ±.5 5 PLC ±.25 4 PLC ±.0001 ANGLES ±.5 FINISH	NAME: SOCKET CONNECTOR ASSEMBLY W/LATCHES MC-PI4S30, MINI CROWN EDGE SIZE: A CAGE CODE: 100779 DRAWING NO: C=1766308 RESTRICTED TO:
MATERIAL:		WEIGHT:	CUSTOMER DRAWING SCALE: 5:1 SHEET 2 OF 4 REV F

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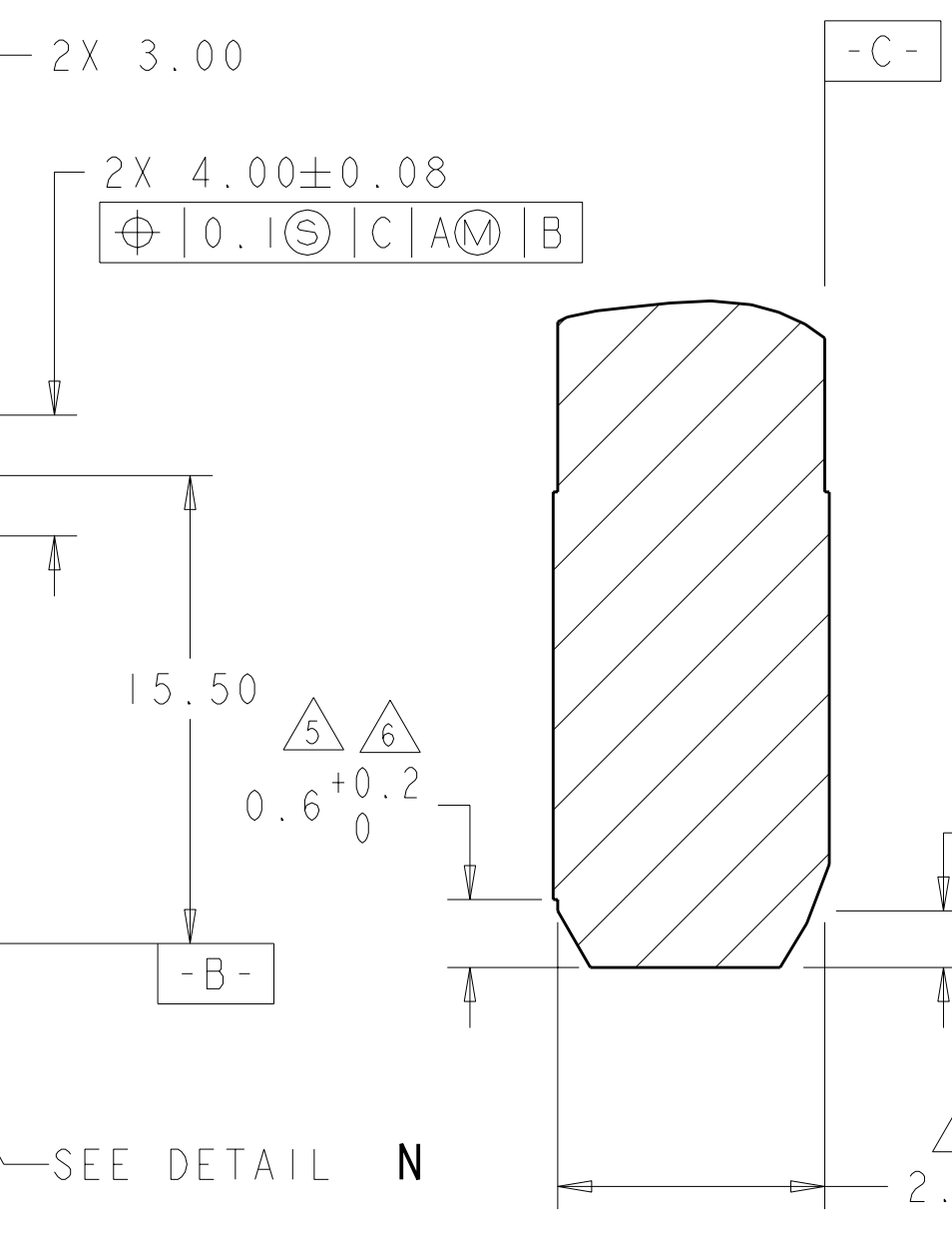
VRM COMPONENT AREA

RECOMMENDED MATING BOARD

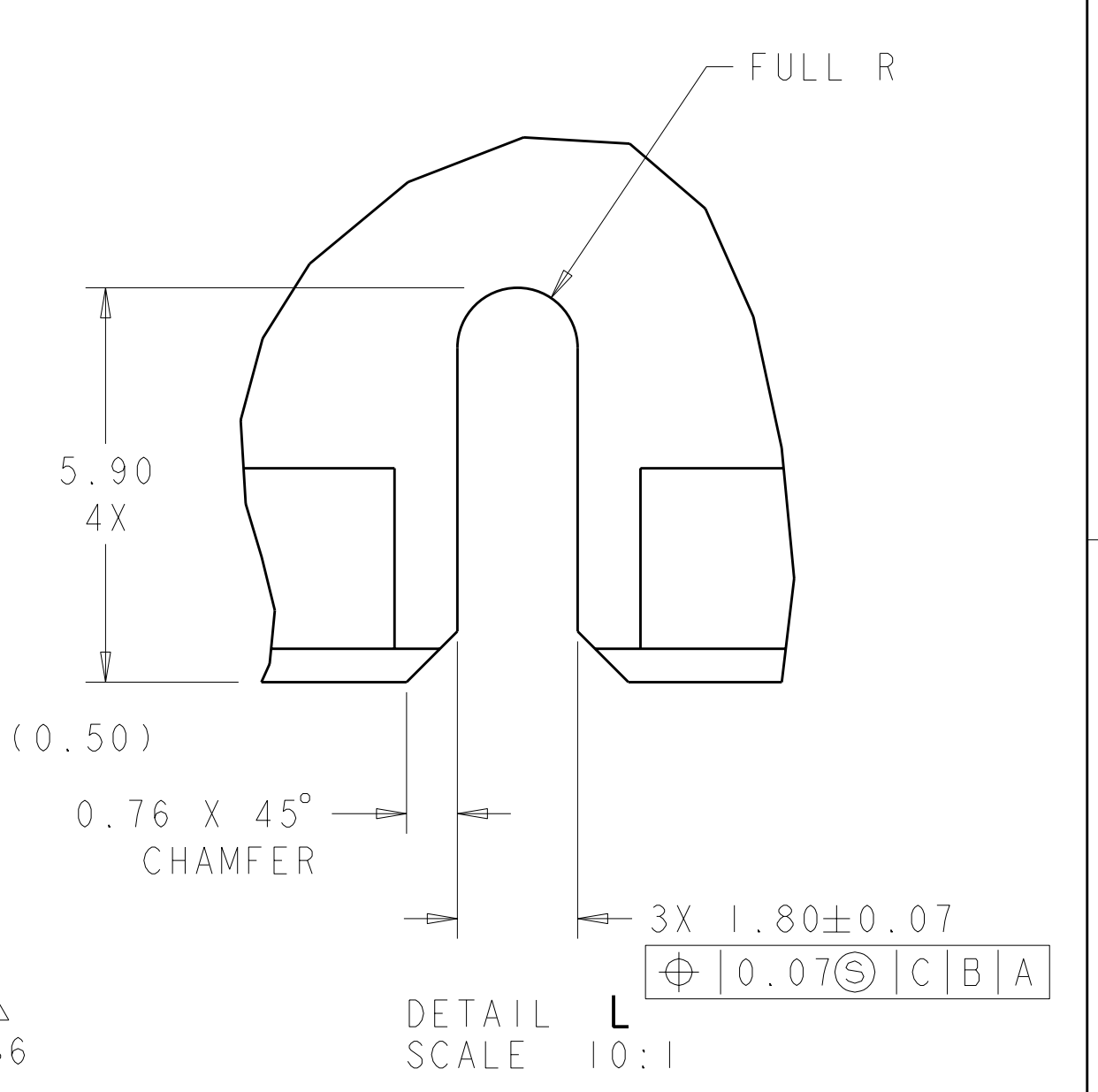


VRM COMPONENT AREA

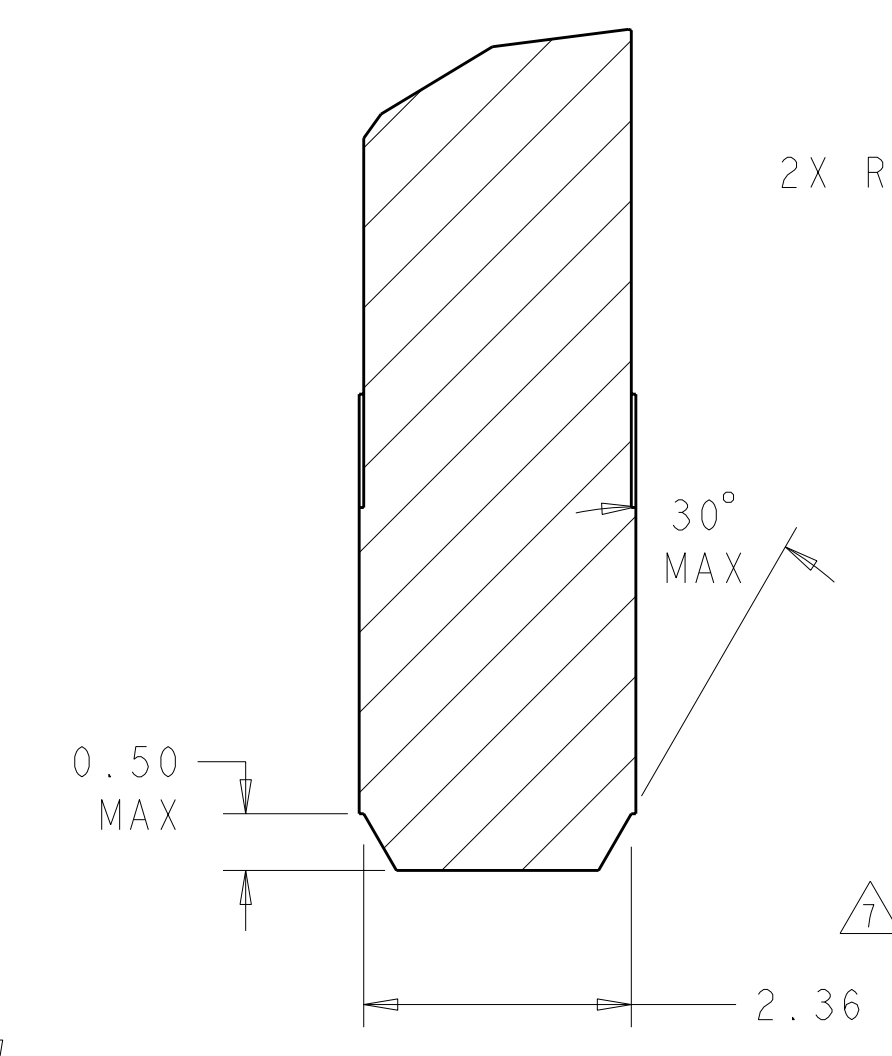
RECOMMENDED PC BOARD KEEP OUT AREA



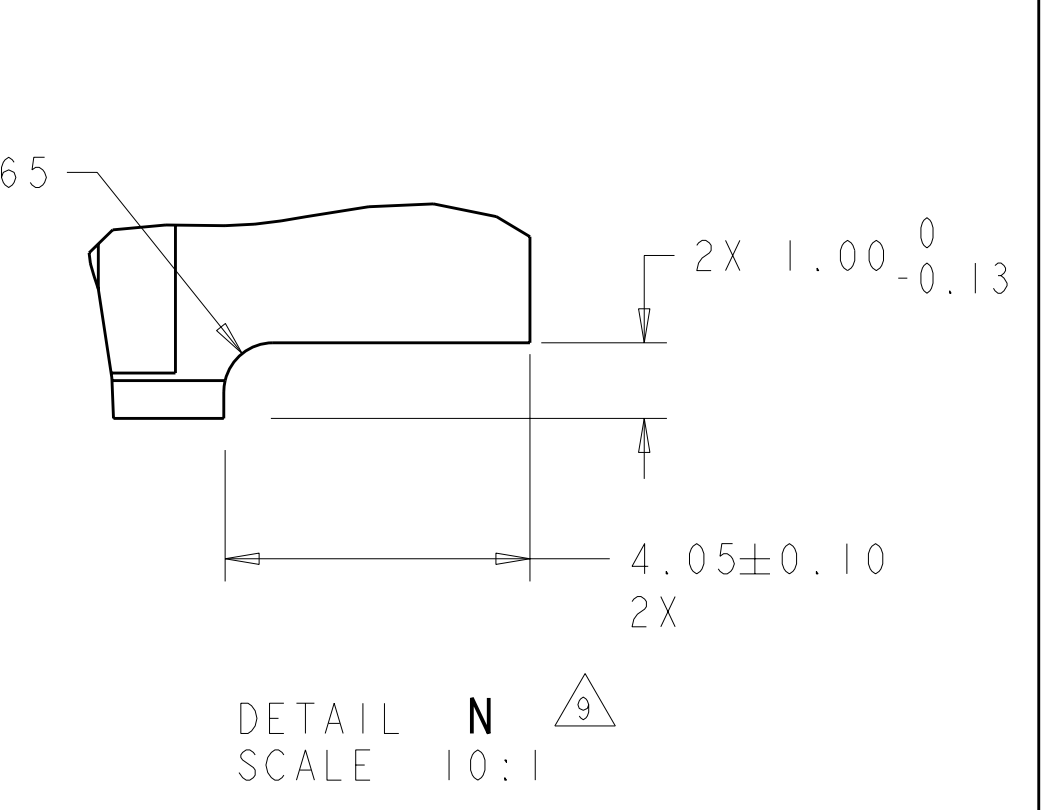
SECTION T-T
SCALE 15:1



DETAIL L
SCALE 10:1



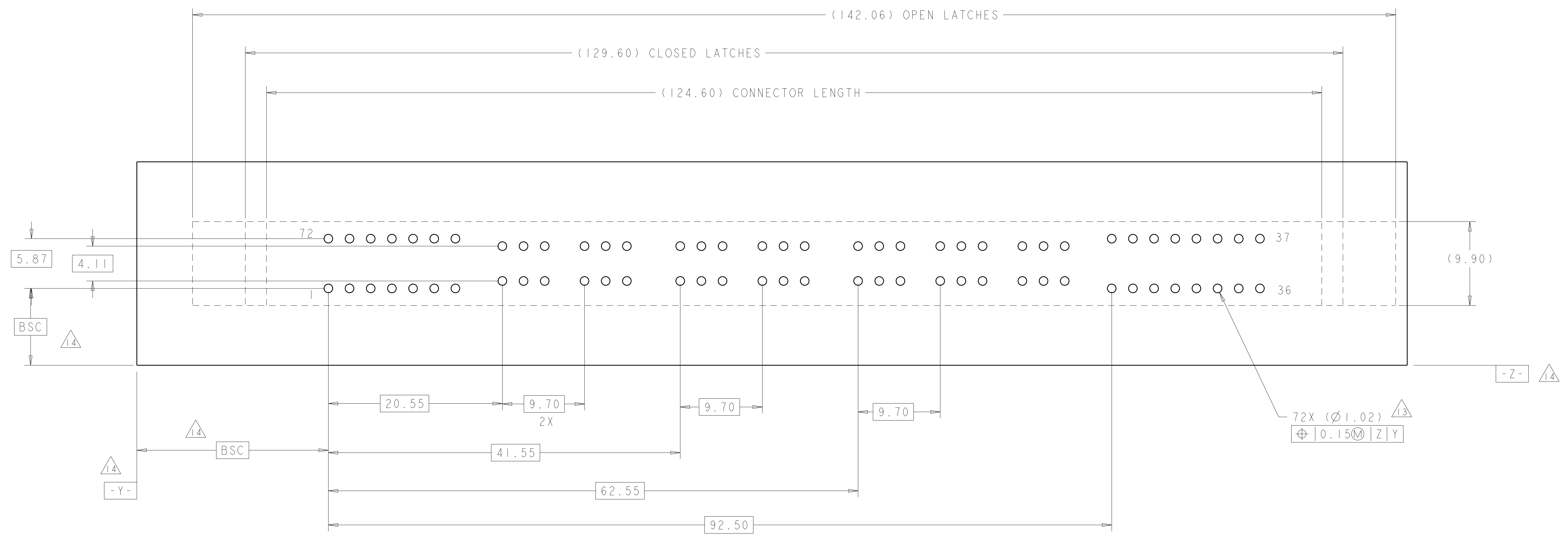
SECTION W-W
SCALE 15:1



DETAIL N
SCALE 10:1

DIMENSIONS:		TOLERANCES UNLESS OTHERWISE SPECIFIED:		DWN: HA/GRZYBOWSKI 08JAN09		Tyco Electronics	
mm		9 PLC ±.5		CHK: P.DAMATO 08JAN09		Tyco Electronics Harrisburg, PA 17105-3608	
Ø		3 PLC ±.25		APPD: CHAU/PERCHERRE 08JAN09		NAME: SOCKET CONNECTOR ASSEMBLY W/LATCHES	
H		5 PLC ±.25		PRODUCT SPEC		MC-PI4S30, MINI CROWN EDGE	
D		4 PLC ±.0001		APPLICATION SPEC		SIZE: CAGE CODE: DRAWING NO: RESTRICTED TO	
R		FINISH ±.5		WEIGHT		A1100779C=1766308	
MATERIAL		FINISH		CUSTOMER DRAWING		SCALE: 5:1 SHEET 3 OF 4 REV F	

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RECOMMENDED P.C. BOARD GUIDELINE
 AS VIEWED FROM CONNECTOR SIDE

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DIMENSIONS: mm 	TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±.5 1 PLC ±.5 2 PLC ±.25 3 PLC ±.25 4 PLC ±.0001 ANGLES ±.5 FINISH	NAME PRODUCT SPEC APPLICATION SPEC WEIGHT CUSTOMER DRAWING	SOCKET CONNECTOR ASSEMBLY W/LATCHES MC-PI4S30, MINI CROWN EDGE SIZE CAGE CODE DRAWING NO A100779C=1766308 SCALE 5:1 SHEET 4 OF 4 REV F