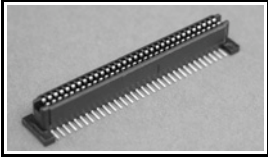


120521-1 Product Details

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120521-1

TE Internal Number: 120521-1

 Active

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1 mm Free Height (IEEE 1386)

 5 of 6 EU RoHS/ELV Compliant (Find RoHS Compliant Alternates/Statement of Compliance)

Product Highlights:

- Connector Style = Receptacle
- 64 Positions
- Stack Height = 8.00 mm, 9.00 mm, 10.00 mm
- With PCB Mount Retention
- With PCB Mount Alignment

[View all Features](#)

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Documentation & Additional Information

Product Drawings:

- [RECEPTACLE ASSY, 1.0mm FH\(IEEE1386\) CONNECTOR \(PDF, English\)](#)

Catalog Pages/Data Sheets:

- None Available

Product Specifications:

- [1.0 mm Mezzanine Connectors \(PDF, English\)](#)

Application Specifications:

- [1.0 mm Free Height \(FH\) Plug and Receptacle Connecto... \(PDF, English\)](#)

Instruction Sheets:

- None Available

CAD Files: (CAD Format & Compression Information)

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

[List all Documents](#)

Additional Product Images:

- [Product Photo](#)

Related Products:

- [Tooling](#)
- [Mating Products \(18\)](#)

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

Product Type Features:

- PCB Mount Retention = With
- PCB Mount Alignment = With
- Product Type = Connector
- Connector Type = Connector Assembly
- Product Line = 1mm FH
- CSA File Number = LR7189
- PCB Mount Retention Type = Locating Post(s)
- PCB Mounting Orientation = Vertical
- PCB Mount Alignment Type = Locating Post(s)

Electrical Characteristics:

- Contact - Rated Current (A) = 0.8
- Operating Voltage Reference = AC/DC
- Operating Voltage (VAC) = 250
- Operating Voltage (VDC) = 250

Housing Features:

- Connector Style = Receptacle
- Centerline (mm [in]) = 1.00 [0.039]
- Housing Color = Black
- Mating Alignment = Without
- Housing Material = Thermoplastic

Configuration Features:

- Number of Positions = 64
- Number of Columns = 32
- Number of Rows = 2
- Differential Signaling = Yes
- Tail Orientation = In-line

Industry Standards:

- [RoHS/ELV Compliance](#) = ELV compliant, 5 of 6

Termination Features:

- Termination Method to PC Board = Surface Mount

Dimensions:

- Stack Height (mm [in]) = 9.00 [0.354], 8.00 [0.315], 10.00 [0.394]
- Tail Length (mm [in]) = 2.05 [0.081]
- Length (X-Axis) (mm [in]) = 34.22 [1.347]
- Width (Z-Axis) (mm [in]) = 6.04 [0.238]
- Profile Height (Y-Axis) (mm [in]) = 5.37 [0.211]

Body Features:

- Mating Retention = Without

Contact Features:

- Contact Base Material = Phosphor Bronze
- Contact Plating, Mating Area, Material = Gold
- Contact Plating, Mating Area, Thickness (μm [μin]) = 0.76 [29.92]
- Contact Plating, Termination Area, Material = Tin-Lead
- Contact Plating, Termination Area, Thickness (μm [μin]) = 3.81 [150]
- Underplate Material = Nickel
- Underplate Material Thickness (μm [μin]) = 1.27 [50.000]
- Contact Design = Single Beam
- Pitch (mm [in]) = 16.00 [0.630]
- Tin to Lead Ratio = 93 / 7

Compliant

- Lead Free Solder Processes = Reflow solder capable to 245°C, Reflow solder capable to 260°C
- Industry Standard = IEEE 1386 Mezzanine Connector
- Agency/Standard = UL, CSA
- UL Rating = Listed
- UL File Number = E28476
- UL Flammability Rating = UL 94V-0
- CSA Certified = Yes

Environmental:

- Operating Temperature ($^{\circ}\text{C}$ [$^{\circ}\text{F}$]) = -55 - +110 [-67 - +230]

Conditions for Usage:

- Applies To = Printed Circuit Board
- Board-to-Board Configuration = Mezzanine

Operation/Application:

- Pick and Place Cover = Without
- Application Use = Board-to-Board
- Contact Transmits (Typical Application) = Signal (Data)

Packaging Features:

- Packaging Method = Tape & Reel

Other:

- Brand = AMP

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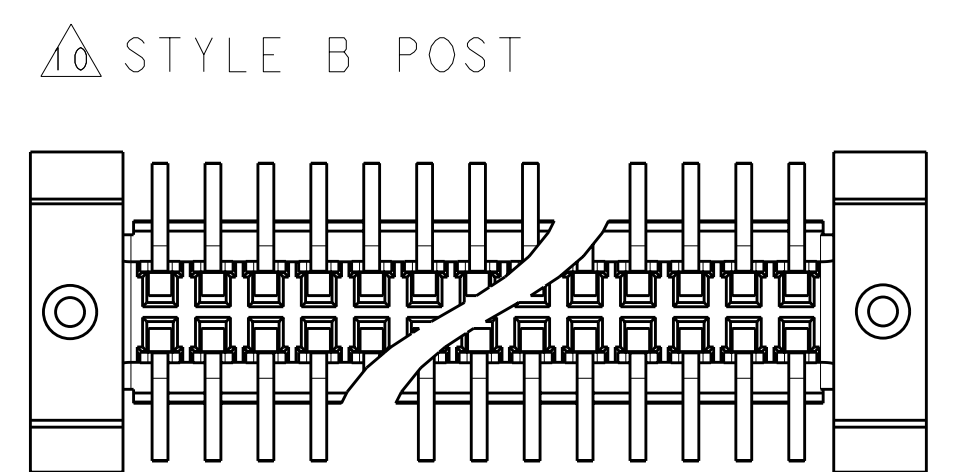
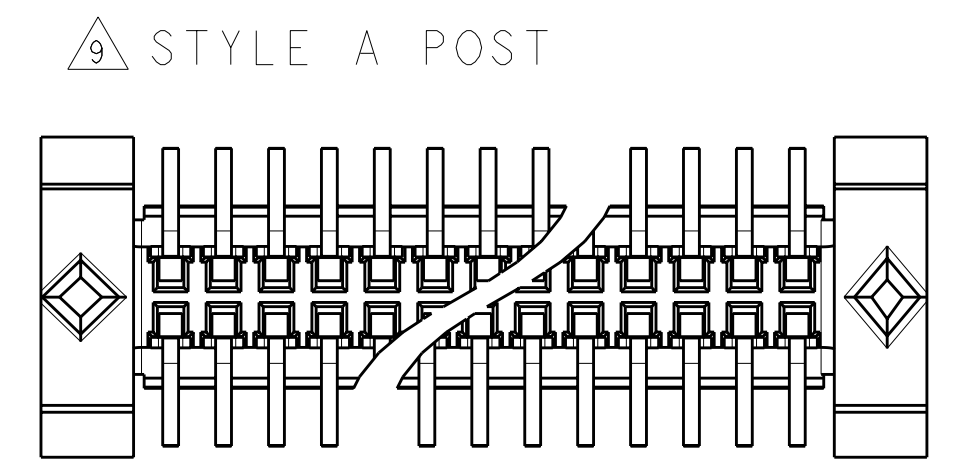
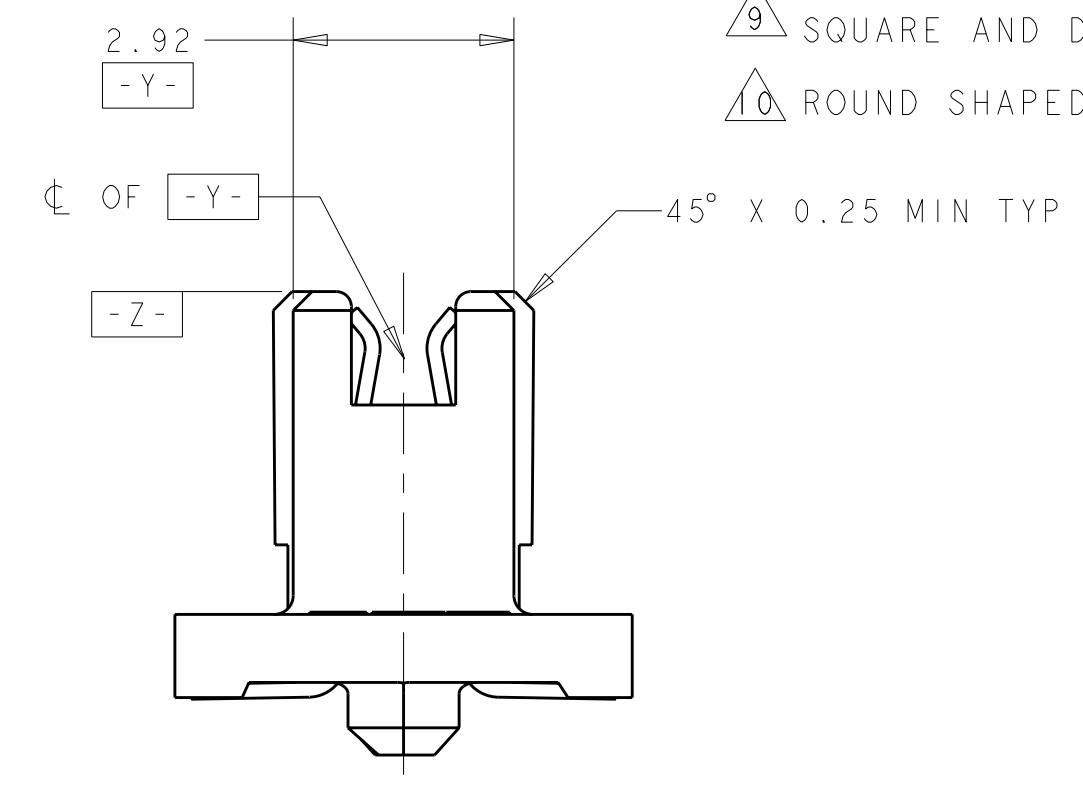
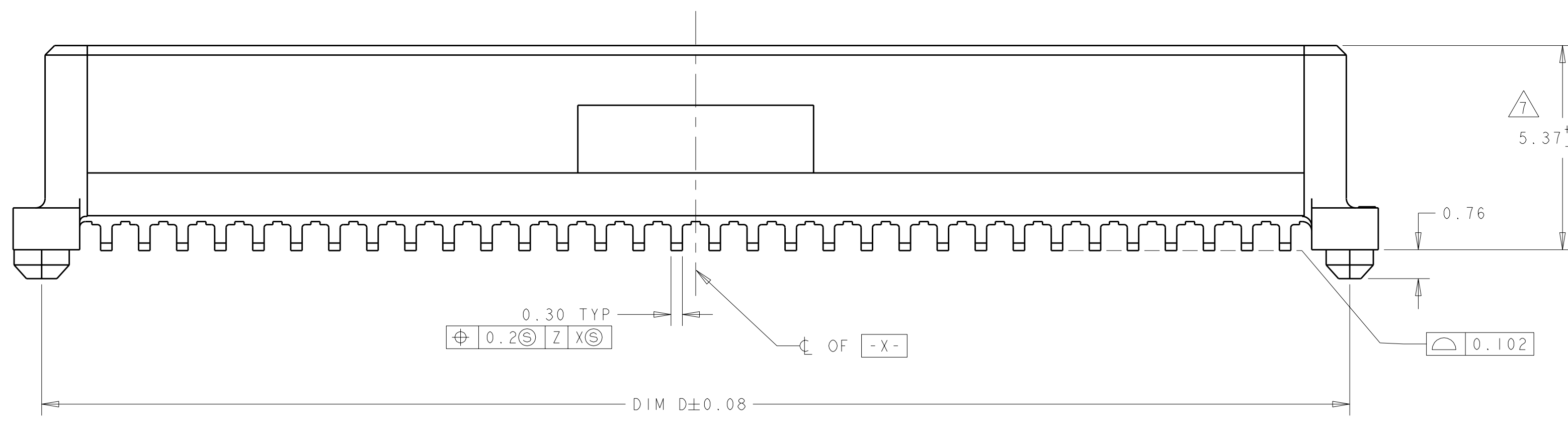
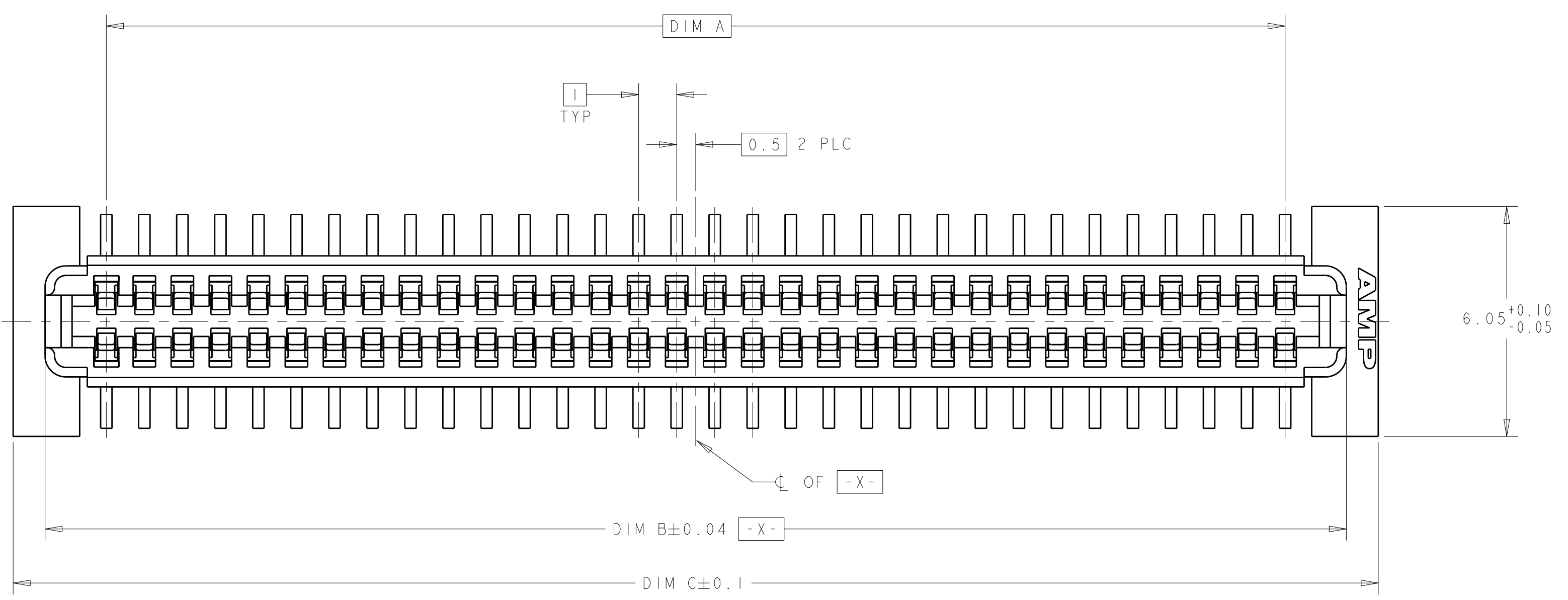
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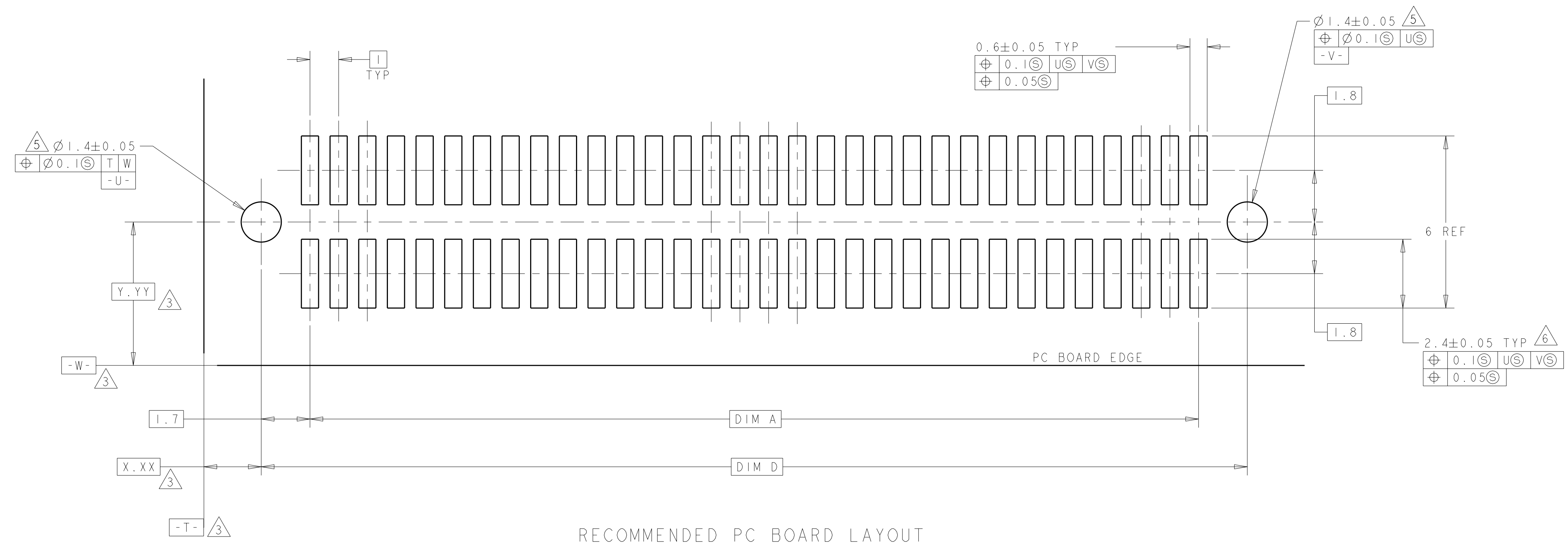
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LOC	DIST	REV	DATE	BY	CHK	APPD
AD	39	J2	11MAR2011	RK	HMR	



1. HOUSING MATERIAL: HIGH TEMPERATURE THERMOPLASTIC, COLOR; BLACK. CONTACT MATERIAL: PHOSPHOR BRONZE.
2. CONTACT FINISH: NICKEL UNDERPLATE ALL OVER, MATING SURFACES PLATED TO MEET PL1 PERFORMANCE REQUIREMENTS OF INDUSTRY SPECIFICATION EIA-700AAAB, SOLDER TAILS PLATED TIN-LEAD.
3. DATUM LOCATIONS AND BASIC DIMENSIONS TO BE ESTABLISHED BY THE CUSTOMER. CONSULT AMP ENGINEERING WHEN PLACING MULTIPLE CONNECTORS ON A PC BOARD.
4. PACKAGED IN TAPE ON REEL PER EIA-481.
5. 1.5 MIN DIAMETER HOLE SHOULD BE USED IF USING POST STYLE "A" AND PLACING ON PCB WITH VACUUM PLACEMENT EQUIPMENT.
6. SHORTER SOLDER LANDS MAY BE USED PER EIA 700AAAB, HOWEVER 2.4 LENGTH ASSURES OPTIMUM SOLDER FILLET REGARDLESS OF MANUFACTURER OF CONNECTOR.
7. REFERRED TO AS DIM H = 5.30±0.1 IN EIA700AAAB SPECIFICATION.
8. CONTACT FINISH: 0.00381 MINIMUM MATTE TIN-LEAD (93-7) ON SOLDER AREA, 0.00127 MINIMUM GOLD ON MATING AREA, BOTH OVER 0.00127 MINIMUM NICKEL ON ENTIRE CONTACT.
9. SQUARE AND DIAMOND SHAPED POSTS
10. ROUND SHAPED POSTS



RECOMMENDED PC BOARD LAYOUT

POST STYLE	FINISH	DIM D	DIM C	DIM B	DIM A	STACK HGTS	POS	PART NO
10	8	44.4	45.9	44.22	41	8,9,10	84	3-120521-2
10	8	34.4	35.9	34.22	31	8,9,10	64	3-120521-1
10	2	44.4	45.9	44.22	41	8,9,10	84	2-120521-2
10	2	34.4	35.9	34.22	31	8,9,10	64	2-120521-1
9	8	44.4	45.9	44.22	41	8,9,10	84	1-120521-2
9	8	34.4	35.9	34.22	31	8,9,10	64	1-120521-1
9	2	44.4	45.9	44.22	41	8,9,10	84	120521-2
9	2	34.4	35.9	34.22	31	8,9,10	64	120521-1

THIS DRAWING IS A CONTROLLED DOCUMENT. DWG: J. REED 2711797. CHK: L. VO 2711797. NAME: [REDACTED]

DIMENSIONS: mm. TOLERANCES UNLESS OTHERWISE SPECIFIED: 9 PLC ±, 2 PLC ±0.03, 5 PLC ±0.003, 4 PLC ±. ANGLES: 40°-1°.

MATERIAL: SEE TABLE. FINISH: SEE TABLE.

PRODUCT SPEC: 502-1079. APPLICATION SPEC: 114-25045. WEIGHT: [REDACTED].

SCALE: 10:1. SHEET 1 OF 1. REV J2.

STE TE Connectivity. RECEPTACLE ASSY, 1.0mm FH (IEEE1386) CONNECTOR. SIZE: A100779. CAGE CODE: 120521.