

JEDEC SOLID STATE  
PRODUCT OUTLINE  
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THIS *REGISTERED OUTLINE* HAS BEEN PREPARED BY THE JEDEC JC-11 COMMITTEE  
AND REFLECTS A PRODUCT WITH ANTICIPATED USAGE IN THE ELECTRONICS INDUSTRY;  
CHANGES ARE LIKELY TO OCCUR.

TITLE 288 TERM POS  
(287 TERM) DDR5 DIMM SMT  
0.85MM PITCH SOCKET

PACKAGE DESIGNATOR  
PDXC-LO288-10p85-  
R162p0x6p5Z21p3-  
N5p20S3p1Z0p2

NUMBER  
SO-023

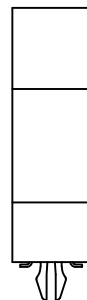
ISSUE  
D

DATE  
MAY 2023

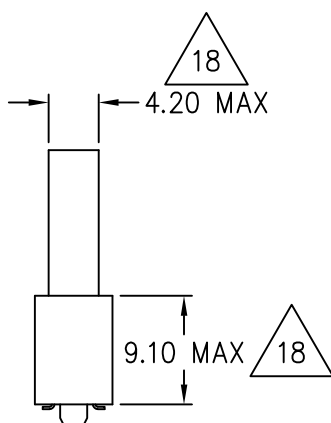
SHEET  
1 OF 13



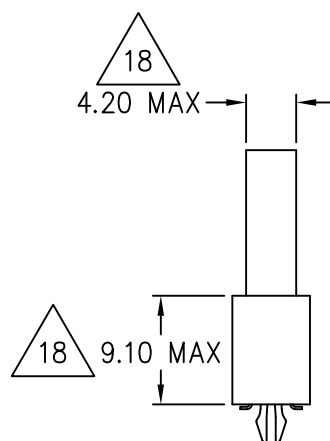
VIEW A-A  
(METAL TAB OPTION)



VIEW A-A  
(FORK LOCK OPTION)

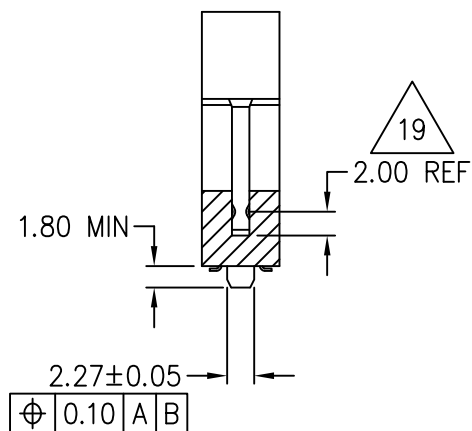


VIEW A-A  
(METAL TAB OPTION)

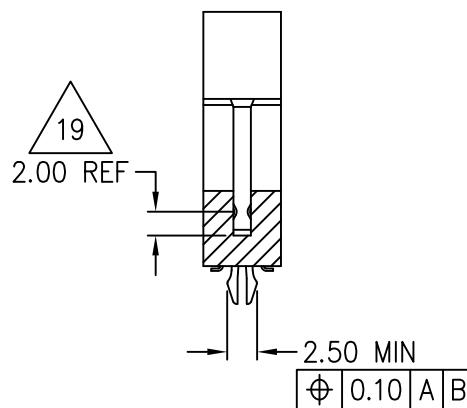


VIEW A-A  
(FORK LOCK OPTION)

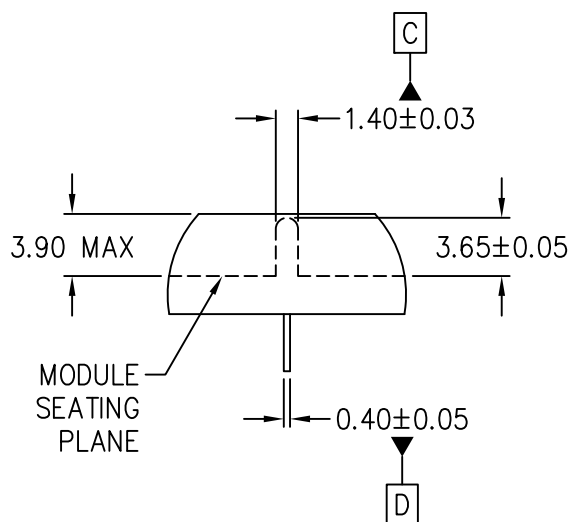
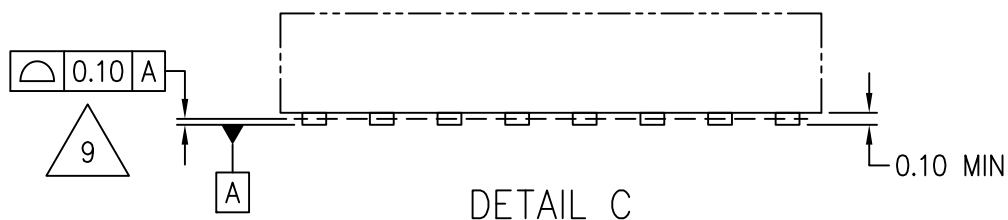
(EXAMPLE: NARROW LATCH TO ENABLE THERMAL EFFICIENCY)



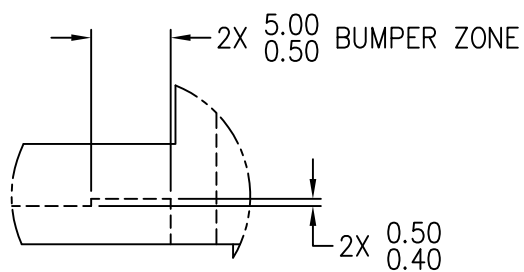
VIEW B-B  
(METAL TAB OPTION)



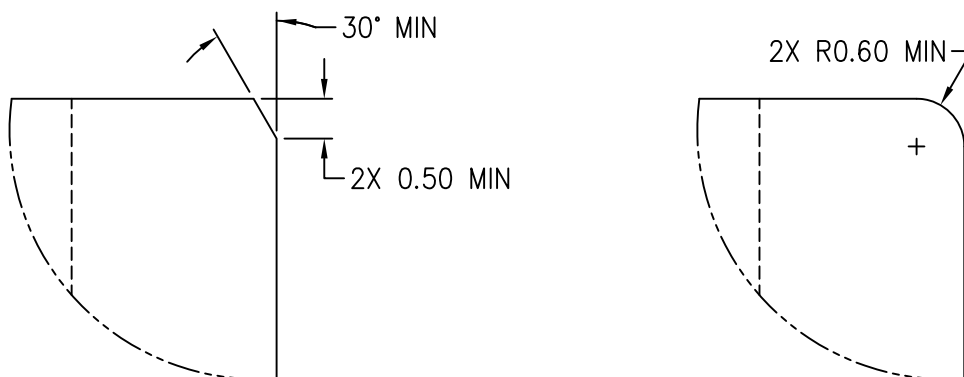
VIEW B-B  
(FORK LOCK OPTION)



DETAIL D

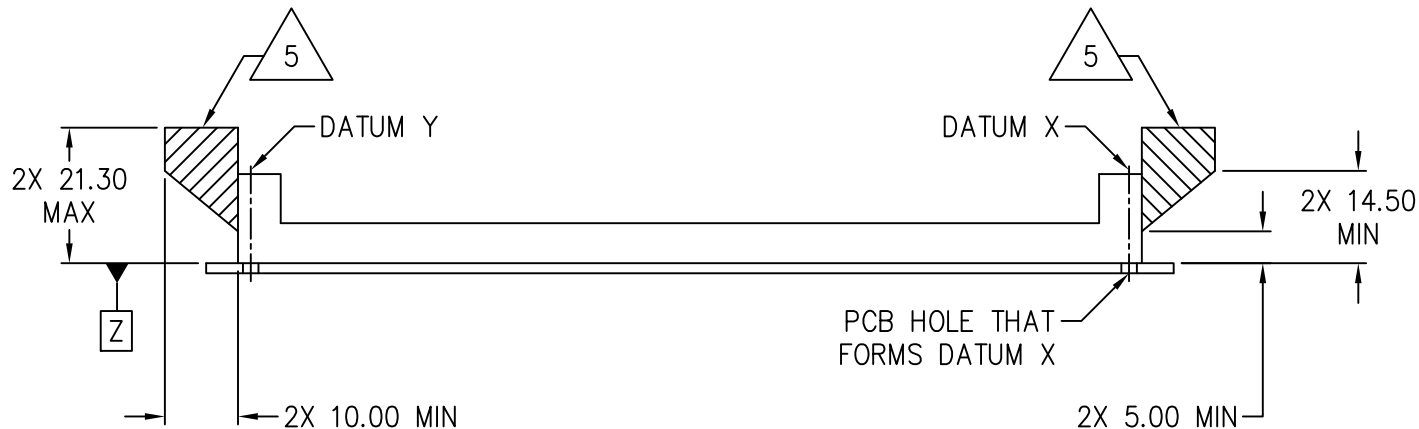
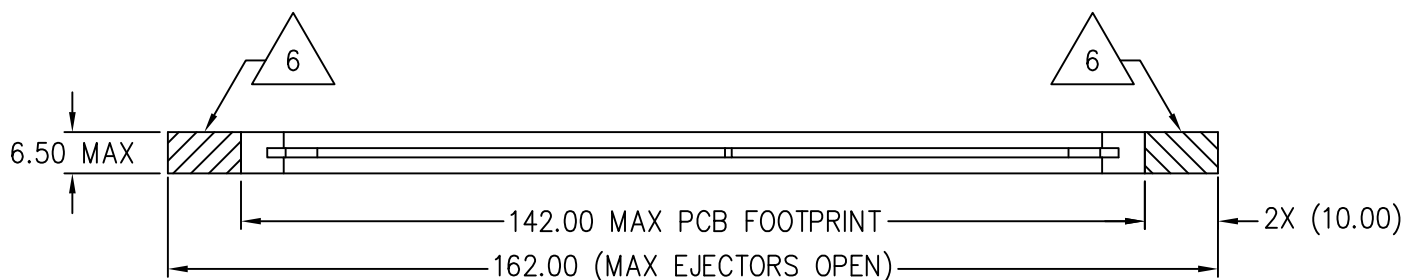


DETAIL F (OPTIONAL)



DETAIL G (OPTIONAL)

EITHER A CHAMFER OR RADII CAN BE USED



SIDE VIEW (PCB AND SOCKET)

TABLE 1

MECHANICAL KEYING			
VARIATION ►	Axxx	Bxxx	---
SYMBOL ▼			---
D	3.875 BASIC	1.425 BASIC	---
D1	4.30 BASIC	1.85 BASIC	---
NOTES	20		
REF	14-202	14-202	---
ISSUE	C	C	---

NOTES:

1. DIMENSIONING AND TOLERANCING CONFORM TO ASME Y14.5–2009.

2. ALL DIMENSIONS ARE IN MILLIMETERS.

3. DIMENSION IS FROM THE BOTTOM OF THE SOCKET PCB REFERENCE, DATUM A, TO THE SEATING PLANE OF THE DDR5 DIMM IN THE SOCKET.

4. A MINIMUM HEIGHT OF Y MEASURED TO THE HIGHEST POINT OF THE SOCKET TO MODULE ENGAGEMENT IS REQUIRED TO PREVENT THE MEMORY MODULE TILTING RELATIVE TO DATUM B OF THE SOCKET.

5. KEEP OUT CROSS HATCH IS RESERVED FOR SOCKET EJECTORS AT BOTH ENDS.

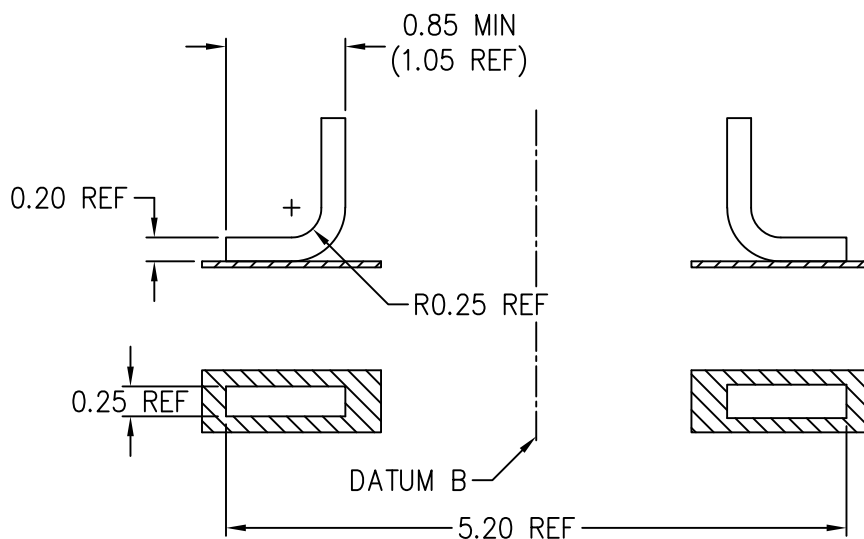
6. KEEP OUT ZONE IS HEIGHT LIMITED PER NOTE 5.

7. REFER TO DDR5 DIMM REGISTERED OUTLINE MO–329 FOR MODULE DIMENSIONS.

8. REFER TO JEDEC PS–005, DDR5 288 POS U/R/MR DIMM CONNECTOR PERFORMANCE STANDARD.

9. COPLANARITY MEASUREMENTS ARE MADE BY PLACING THE CONNECTOR ONTO A FLAT STEEL SURFACE.

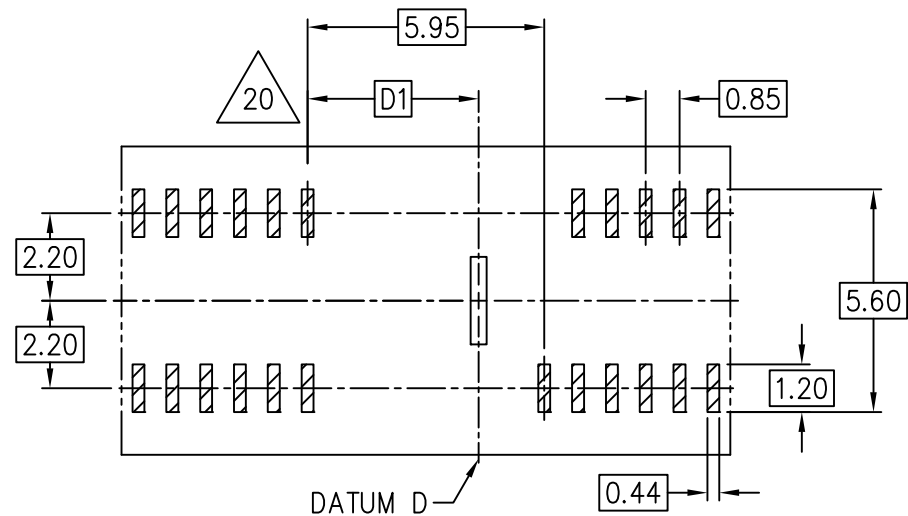
10. THE FIGURE BELOW SHOWS THE REFERENCE CONNECTOR TERMINAL DIMENSIONS.



CONNECTOR TERMINAL DIMENSIONS

NOTES CONTINUED:

11. THE FIGURE BELOW IS INCLUDED FOR REFERENCE AND DEPICTS A BOUNDARY AREA (OUTER LOCUS) OF A RECTANGULAR GEOMETRY REPRESENTING THE TERMINAL/CONTACT OF THE CONNECTOR. THIS LOCUS INCLUDES ALLOWANCES FOR POSITION AND SIZE TOLERANCES. THE FIGURE SHOWN BELOW DEFINES THE ZONE WITHIN WHICH THE SMT SOLDER TERMINALS (FLAT SURFACES ONLY) OF THE CONNECTOR MUST ALWAYS BE LOCATED. THIS IS NOT THE MOTHERBOARD FOOTPRINT.

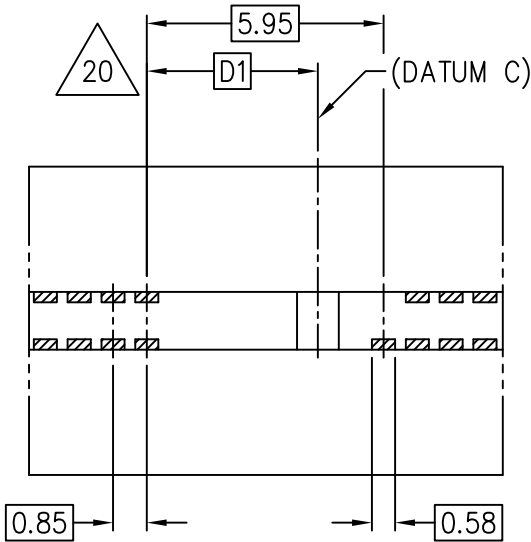


OUTER LOCUS OF CONNECTOR SMT TERMINALS



NOTES CONTINUED:

12. THE FIGURE BELOW SHOWS THE OUTER LOCUS OF THE CONNECTOR PINS AT DIMM MATING INTERFACE WITH RESPECT TO THE CONNECTOR KEY, DATUM C. THE WIDTH OF THE OUTER LOCUS 0.58 IS DEFINED BY THE MAXIMUM PIN WIDTH PLUS THE POSITIONAL TOLERANCE OF THE PINS WITH RESPECT TO DATUM C.



OUTER LOCUS OF CONNECTOR CONTACT PIN

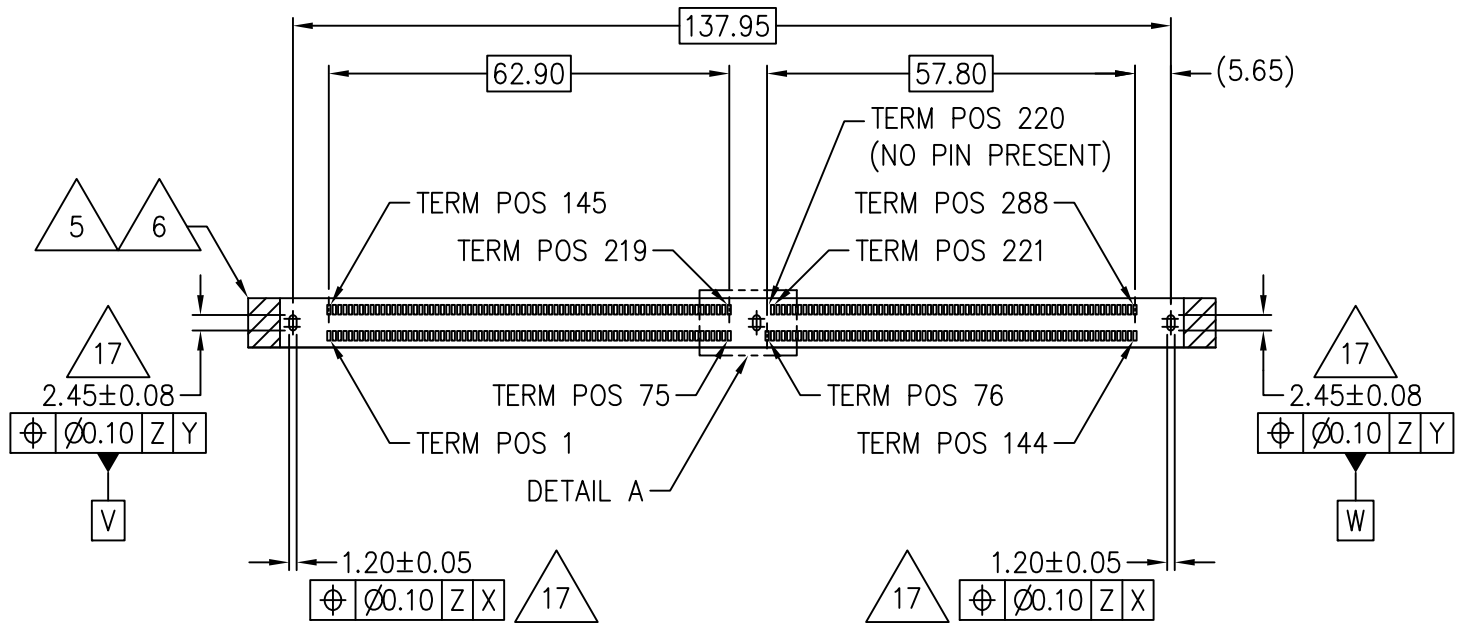
APPLICATION NOTES:

- 13 THE BUMPER ZONE, OR SIMILAR FEATURE, HELPS TO PREVENT ROCKING OF THE MODULE. VARIOUS COMPANIES HAVE ISSUED PATENTS AND RELATED PATENT APPLICATIONS THAT MAY APPLY TO THIS REGISTRATION. IF THE CURRENT ISSUE PATENTS OR LATER PATENTS RESULTING FROM RELATED APPLICATION DO APPLY, THESE COMPANIES INTEND TO COMPLY WITH THE JEDEC PATENT POLICY AND LICENSE UNDER REASONABLE TERMS AND CONDITIONS THAT ARE DEMONSTRABLY FREE OF ANY UNFAIR DISCRIMINATION.
- 14 THE ENVELOPE FEATURE DEFINED BY THE 133.75 MM DIMENSION IS DRAWN AS CONTINUOUS. IF AS MANUFACTURED, THE FEATURE IS NOT CONTINUOUS, THERE SHALL BE SUFFICIENT MATERIAL TO PREVENT THE MODULE FROM SHIFTING BEYOND THE 133.75 MM DIMENSION FEATURE.

15. IN ORDER TO PREVENT BINDING, DAMAGE, OR POSSIBLE SHORTING BETWEEN TERMINALS, A VERTICAL ALIGNMENT AND INSERTION OF THE MEMORY MODULE INTO THE SOCKET IS RECOMMENDED.

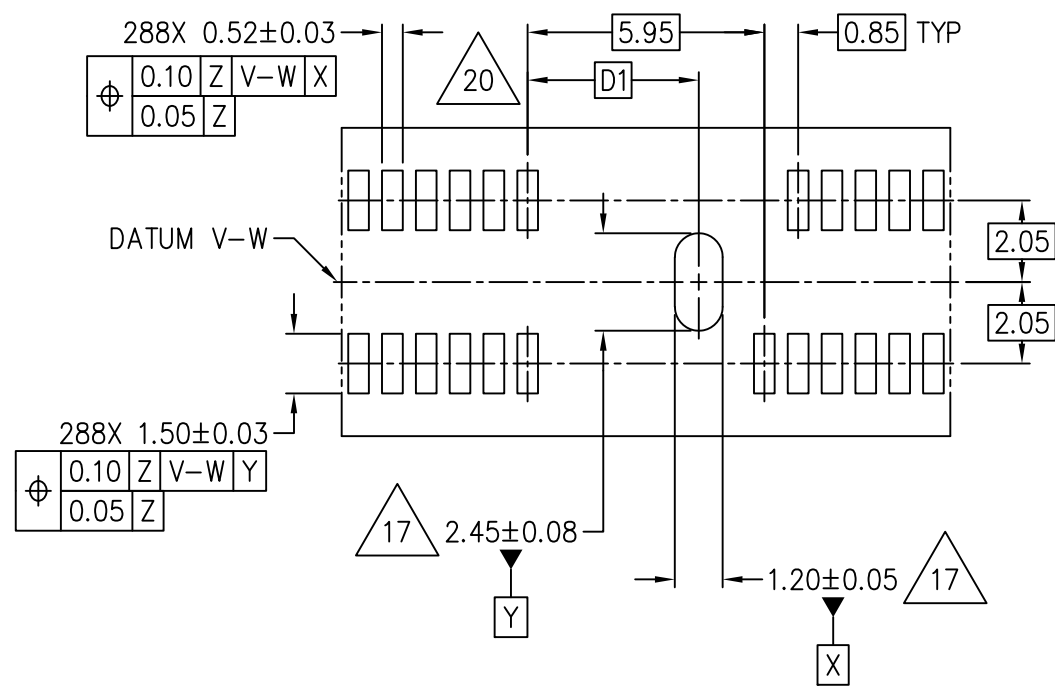
17 PLATED THROUGH HOLE.





RECOMMENDED PCB FOOTPRINT (OPTION 2)

APPLICATION NOTES CONTINUED:

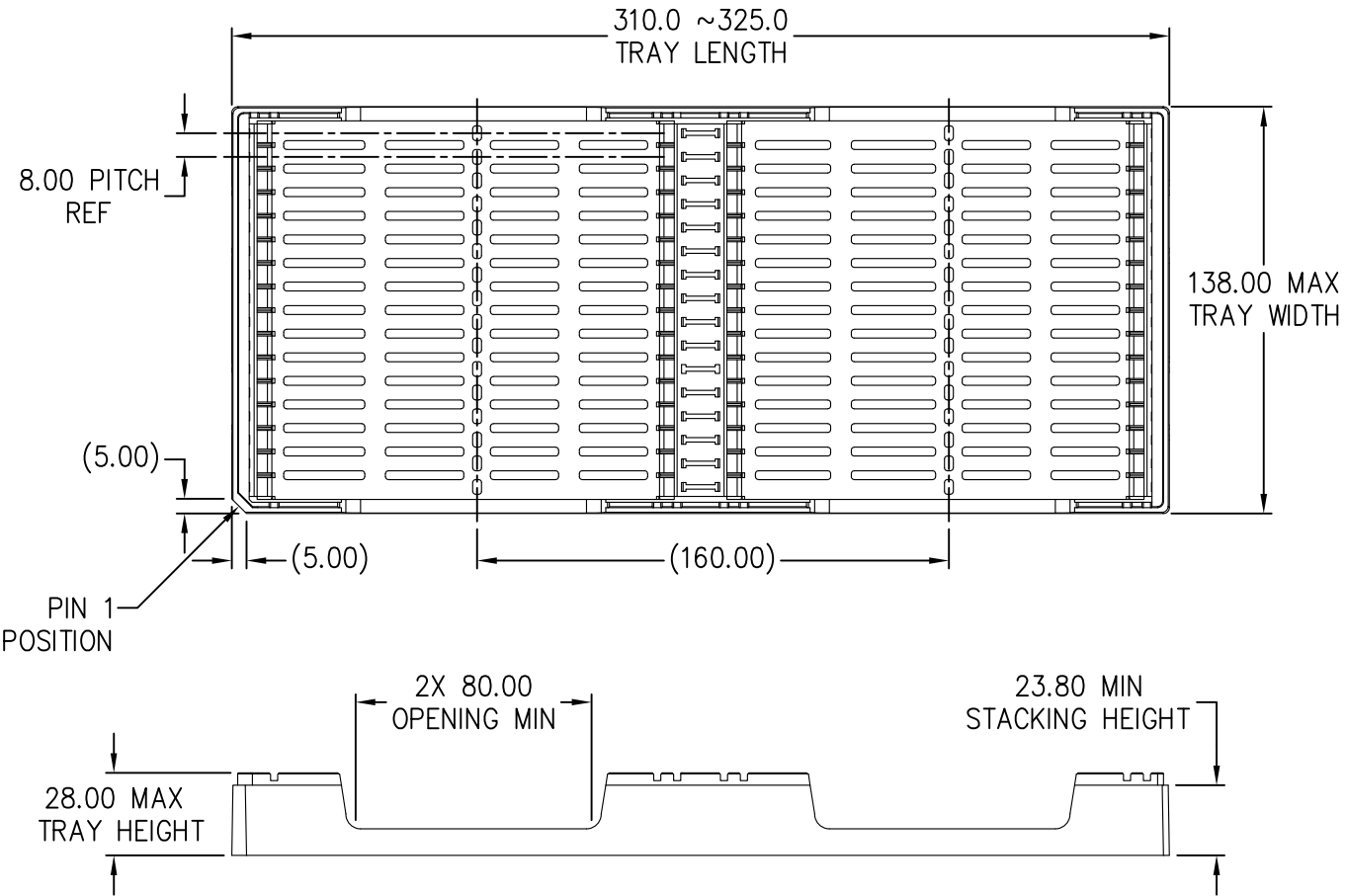


DETAIL A

- 18 FOR VARIOUS PLATFORMS WITH THERMAL CHALLENGE, NARROW LATCHES ARE RECOMMENDED TO ALLOW MORE AIR FLOW TO DISSIPATE THE HEAT FROM MODULE COMPONENTS.
- 19 THE PIN CONTACT POINT TO SEATING PLANE DIMENSION IS RECOMMENDED FOR CONNECTOR COMPATIBILITY
- 20 VARIATION A<sub>xxx</sub> IS DEDICATED FOR DDR5 R/LR DIMM CONNECTOR AND VARIATION B<sub>xxx</sub> IS DEDICATED FOR DDR5 UDIMM CONNECTOR

APPLICATION NOTES CONTINUED:

21. THE SOCKETS ARE PACKED IN A HARD TRAY. THE BELOW FIGURE SHOWS A REFERENCE DESIGN OF A HARD TRAY WITH CAPACITY OF 32 SOCKETS. THIS REFERENCE DESIGN SUPERSEDES THE TRAY DESIGN RECOMMENDATIONS CALLED OUT IN JEP95 BECAUSE OF THE UNIQUE REQUIREMENTS OF THE DDR5 SOCKET.



STP (3D) FILE RECORD  
3D FILE NAMES MAY EXCEED LENGTH REQUIREMENTS FOR SOME SOFTWARE TOOLS.

STP FILE NAME	DATE	ITEM NUMBER
SO-023B_PDXC-L0288-l0p85-R162p0x6p5Z21p3-N5p20S3p1Z0p2_Axxx	JUL 2019	14-196
SO-023C_PDXC-L0288-l0p85-R162p0x6p5Z21p3-N5p20S3p1Z0p2_Bxxx	SEP 2020	14-202

## TASK GROUP CONTRIBUTORS

AMPHENOL EAST ASIA LTD.  
ARGOSY RESEARCH INC.  
DELL INC.  
FOXCONN INTERCONNECT TECHNOLOGY LTD  
HEWLETT PACKARD ENTERPRISE COMPANY  
HP INC.  
IBM CORPORATION  
INTEL CORPORATION  
INVENTEC CORPORATION  
LOTES CO. LTD.  
LUXSHARE-ICT, INC.  
MICRON TECHNOLOGY INC.  
MOLEX LLC  
SAMSUNG SEMICONDUCTOR  
SHENZHEN DEREN ELECTRONIC CO. LTD.  
SK HYNIX INC.  
TE CONNECTIVITY  
WLCO SHENZHEN CO. LTD.

# CHANGE RECORD

IF THE CHANGE INVOLVES ANY WORDS ADDED OR DELETED (EXCLUDING DELETION OF ACCIDENTALLY REPEATED WORDS), THE CHANGE IS TO BE INCLUDED BELOW. PUNCTUATION CHANGES MAY OR MAY NOT BE INCLUDED.

INITIAL ISSUE: A	DATE: AUGUST 2017	ITEM NUMBER: 14-186
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CHANGE RECORD HISTORY:
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ISSUE: B	DATE: JULY 2019	ITEM NUMBER: 14-196
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LOCATION:	CHANGED FROM:	CHANGED TO:
ALL SHEETS, TITLE	DDR5 DIMM SMT 288 POS SOCKET OUTLINE, 0.85MM PITCH	288 POS (287 PIN) DDR5 DIMM SMT 0.85MM PITCH SOCKET
SHEET 1, PKG DESIGNATOR	SKT	PDXC-L0288-I0p85- R162p0x6p5Z21p3- N5p20S3p1Z0p2
SHEET 3		ADDED 0.10 MIN ON DETAIL C
SHEET 5; NOTE 7	MO-XXX	MO-329
SHEET 5; NOTE 8	...PS-002, DDR4 288 POS...	...PS-XXX, DDR5 288 POS...
SHEET 10		ADDED NOTE 20

ISSUE: C	DATE: SEPTEMBER 2020	ITEM NUMBER: 14-202
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LOCATION:	CHANGED FROM:	CHANGED TO:
SHEET 1	3.875	D
	DATUM C	(DATUM C)
		ADDED D1
		ADDED DETAIL G
	REMOVED 72.85 AND 65.10	ADDED 137.95 DIMENSION
SHEET 4		ADDED DETAIL G
SHEET 6		ADDED TABLE 1
SHEET 8	4.30	D1
	REMOVED 1.65 DIMENSION	ADDED 5.95 DIMENSION
SHEET 9	4.30	D1
	REMOVED 1.65 DIMENSION	ADDED 5.95 DIMENSION
	DATUM C	(DATUM C)
SHEET 10	REMOVED 72.85 AND 65.10	ADDED 137.95 DIMENSION
		ADDED (5.65)

JEDEC SOLID STATE PRODUCT OUTLINE Copyright © 2023 JEDEC	TITLE 288 TERM POS (287 TERM) DDR5 DIMM SMT 0.85MM PITCH SOCKET	NUMBER SO-023	ISSUE D	DATE MAY 2023	SHEET iii
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# CHANGE RECORD

IF THE CHANGE INVOLVES ANY WORDS ADDED OR DELETED (EXCLUDING DELETION OF ACCIDENTALLY REPEATED WORDS), THE CHANGE IS TO BE INCLUDED BELOW. PUNCTUATION CHANGES MAY OR MAY NOT BE INCLUDED.

LOCATION:	CHANGED FROM:	CHANGED TO:
SHEET 11		ADDED NOTE 20
	4.30	D1
SHEET 12	NOTE 20	NOTE 21
		ADDED (160.00) DIMENSION
SHEET i		ADDED VARIATION Bxxx
SHEET ii		ADDED NEW SHEET FOR TASK GROUP CONTRIBUTORS

ISSUE:D	DATE:MAY 2023	ITEM NUMBER:14–216
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LOCATION:	CHANGED FROM:	CHANGED TO:
ALL SHEETS, TITLE	288 PIN DDR5 DIMM SMT 0.85MM PITCH SOCKET	288 TERM POS (287 TERM) DDR5 DIMM SMT 0.85MM PITCH SOCKET
SHEETS 1 & 8 THRU 12		REMOVED PIN 220
SHEET 7, NOTE 8	REFER TO JEDEC PS–XXX ..U/R/UR..	REFER TO JEDEC PS–005 ..U/R/MR..
SHEET 10, NOTE 15	..SHORTING BETWEEN CONTACTS	..SHORTING BETWEEN TERMINALS
SHEET 10	PIN XXX	TERM POS XXX ADDED TERM POS 220
SHEET 13, NOTE 21	..CONNECTOR	..SOCKET
SHEET 11	PIN XXX	TERM POS XXX ADDED TERM POS 220