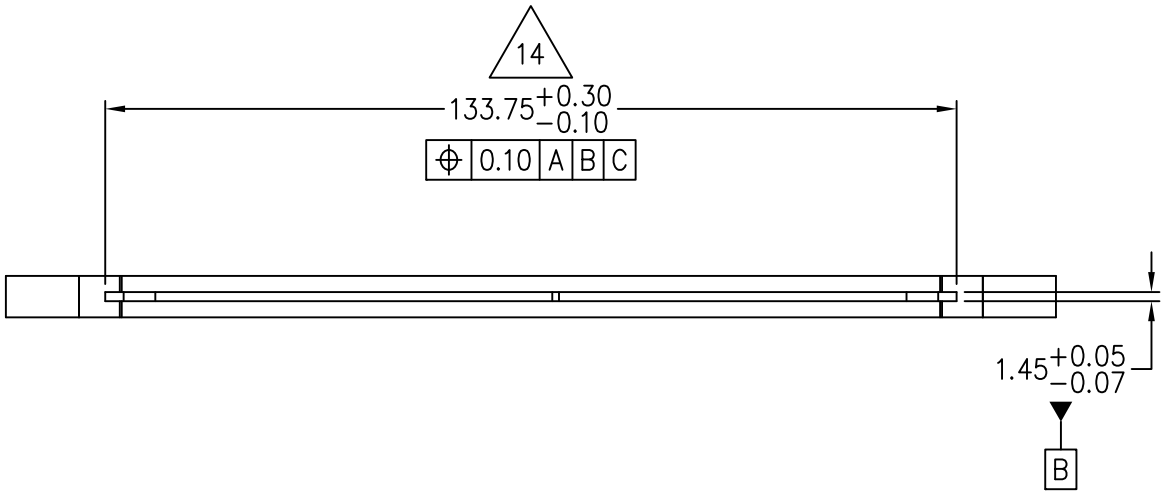
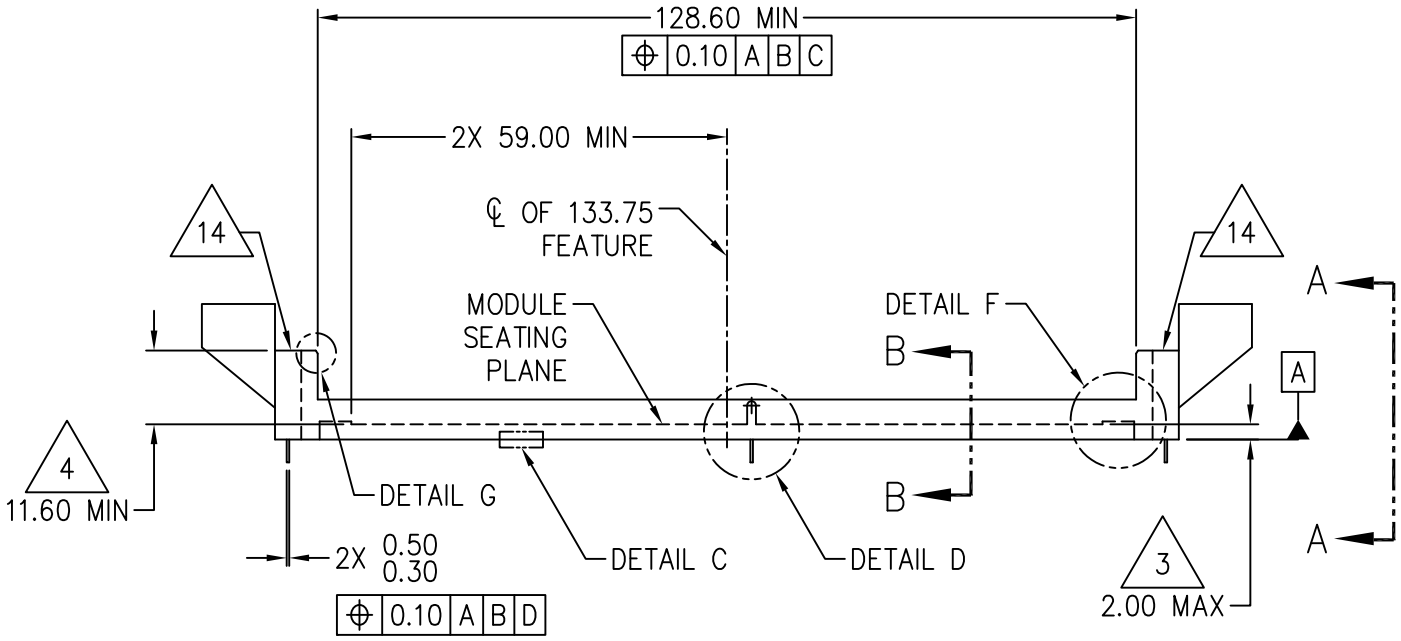
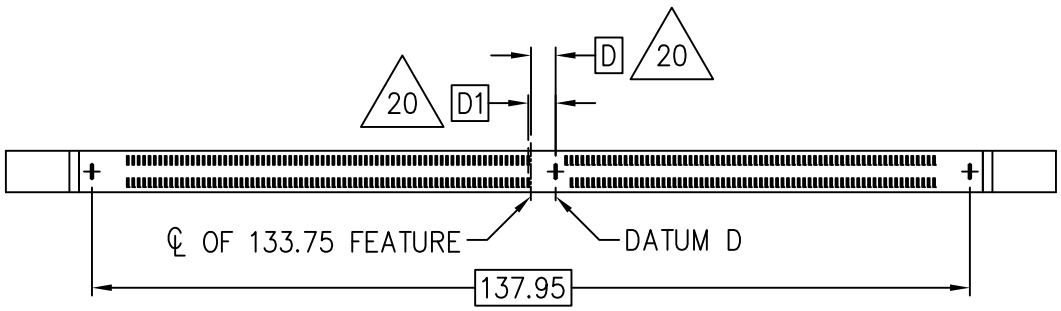
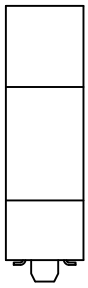




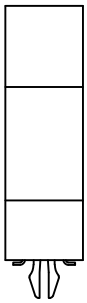


JEDEC SOLID STATE PRODUCT OUTLINE 	THIS *REGISTERED OUTLINE* HAS BEEN PREPARED BY THE JEDEC JC-11 COMMITTEE AND REFLECTS A PRODUCT WITH ANTICIPATED USAGE IN THE ELECTRONICS INDUSTRY; CHANGES ARE LIKELY TO OCCUR.

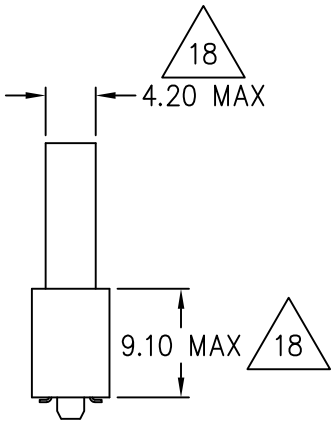
TITLE	PACKAGE DESIGNATOR	NUMBER	ISSUE	DATE	SHEET
288 TERM POS (287 TERM) DDR5 DIMM SMT 0.85MM PITCH SOCKET	PDXC-LO288-I0p85-R162p0x6p5Z21p3-N5p20S3p1Z0p2	SO-023	E	FEB 2025	1 OF 13



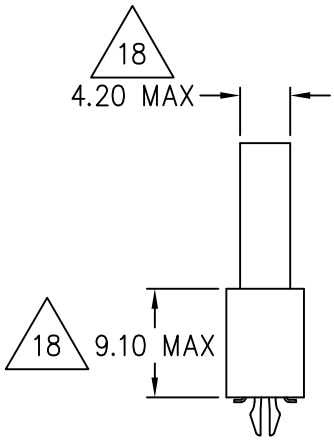
VIEW A–A
(METAL TAB OPTION)



VIEW A–A
(FORK LOCK OPTION)

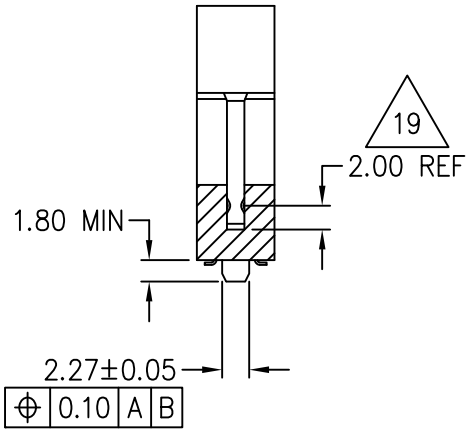


VIEW A–A
(METAL TAB OPTION)

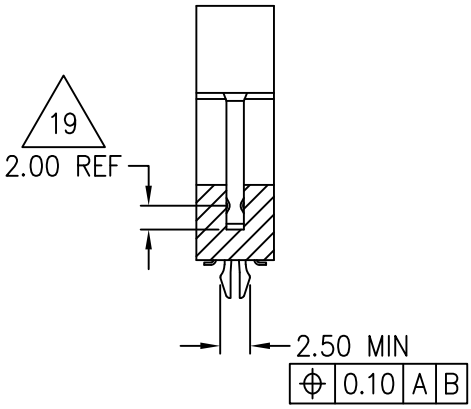


VIEW A–A
(FORK LOCK OPTION)

(EXAMPLE: NARROW LATCH TO ENABLE THERMAL EFFICIENCY)

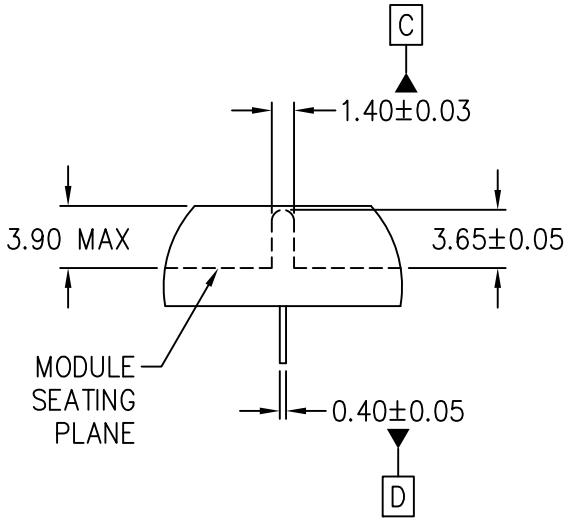


VIEW B–B
(METAL TAB OPTION)

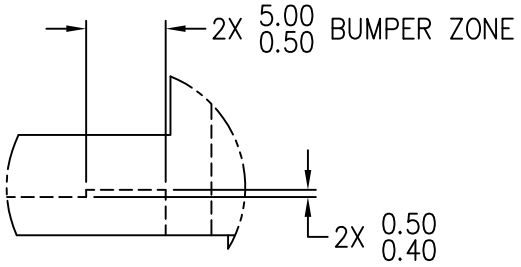


VIEW B–B
(FORK LOCK OPTION)

DETAIL C

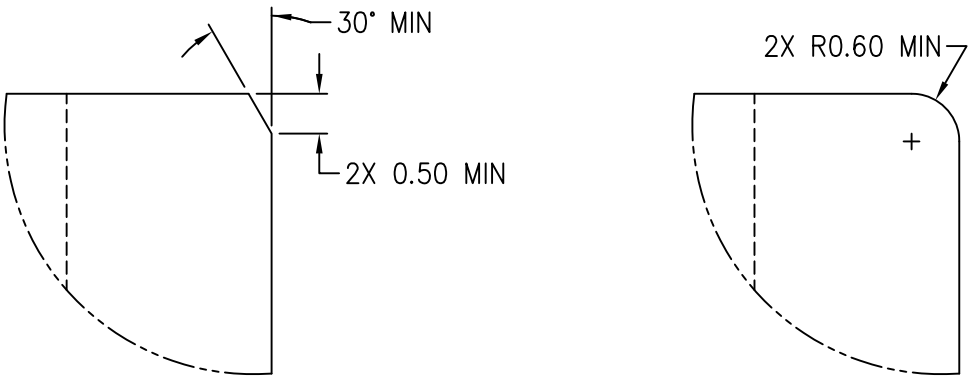


DETAIL D

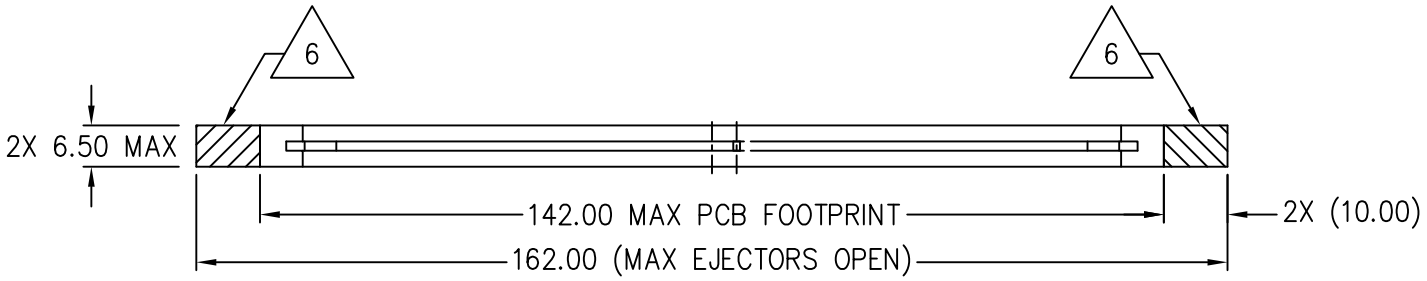


DETAIL F (OPTIONAL)

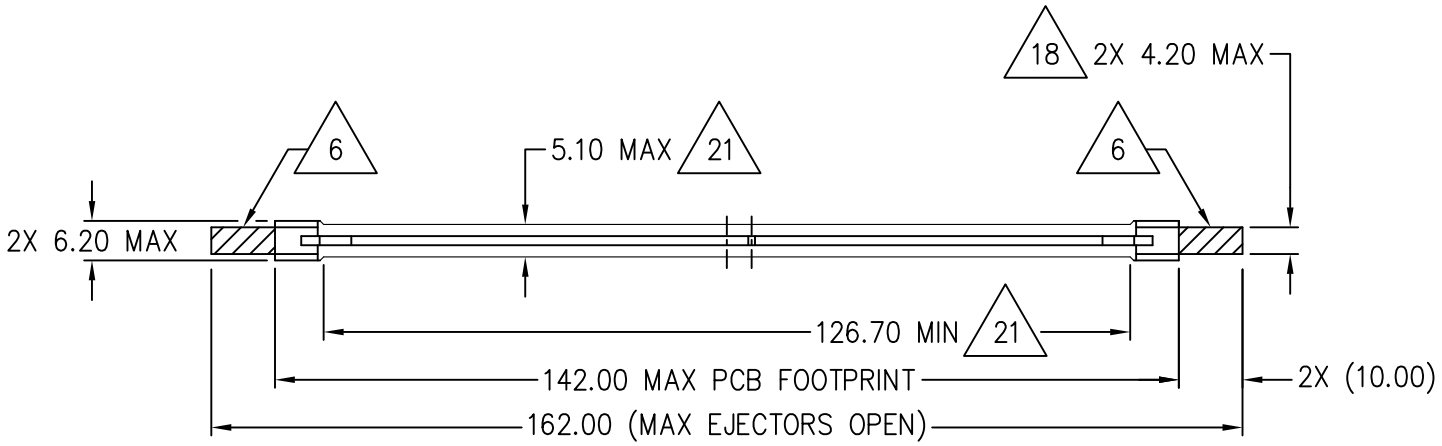
13



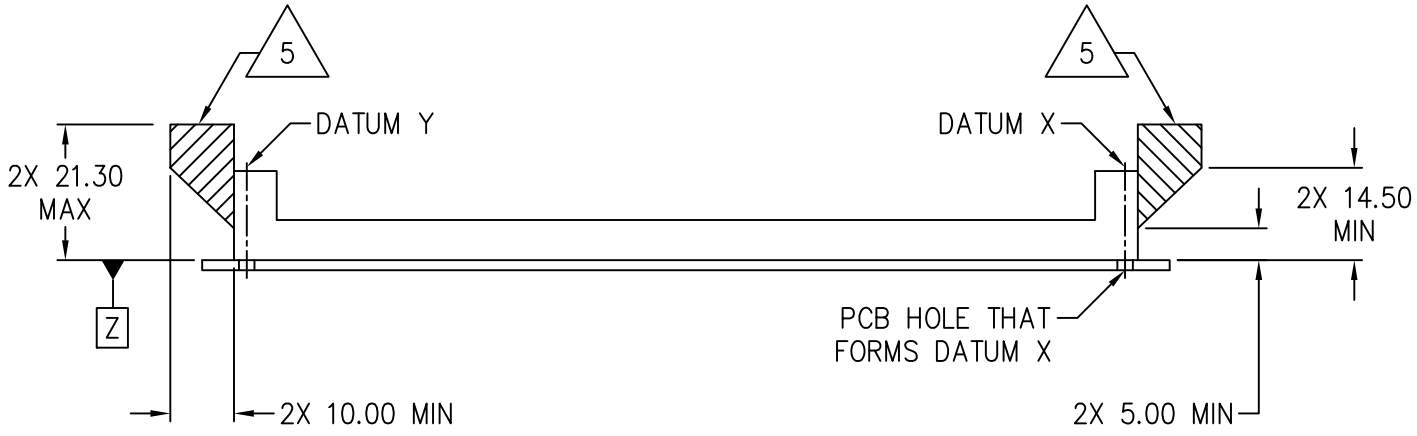
DETAIL G (OPTIONAL)
EITHER A CHAMFER OR RADII CAN BE USED



(REFERENCE DESIGN: NORMAL CONNECTOR HOUSING AND NORMAL LATCH)



(REFERENCE DESIGN: NARROW CONNECTOR HOUSING AND NARROW LATCH)



SIDE VIEW (PCB AND SOCKET)

JEDEC SOLID STATE PRODUCT OUTLINE	TITLE	NUMBER	ISSUE	DATE	SHEET
	288 TERM POS (287 TERM) DDR5 DIMM SMT 0.85MM PITCH SOCKET	SO-023	E	FEB 2025	5 OF 13

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.

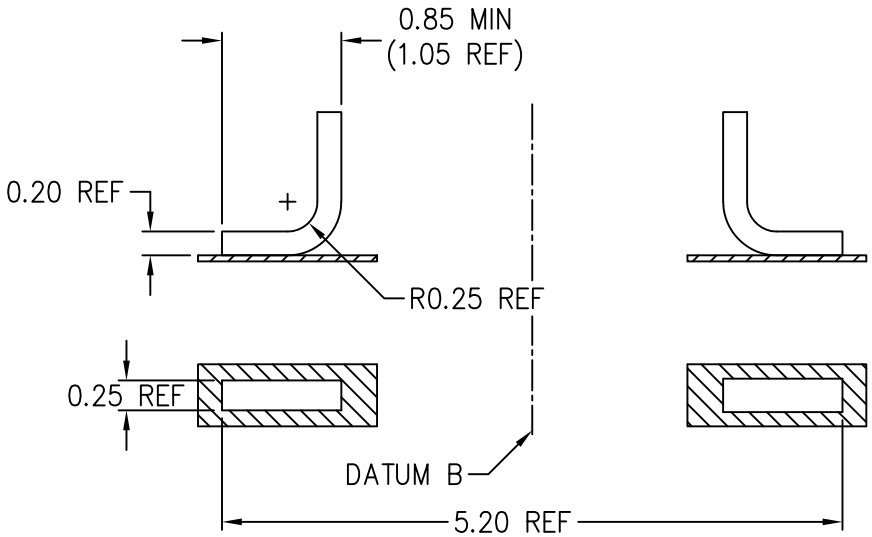
6 KEEP OUT ZONE IS HEIGHT LIMITED PER NOTE 5.

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.

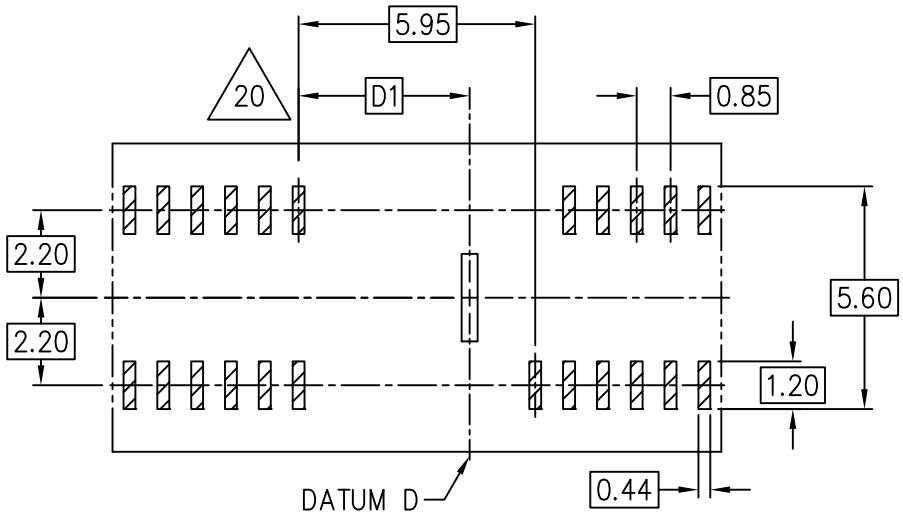
10. THE FIGURE BELOW SHOWS THE REFERENCE CONNECTOR TERMINAL DIMENSIONS.



CONNECTOR TERMINAL DIMENSIONS

NOTES CONTINUED:

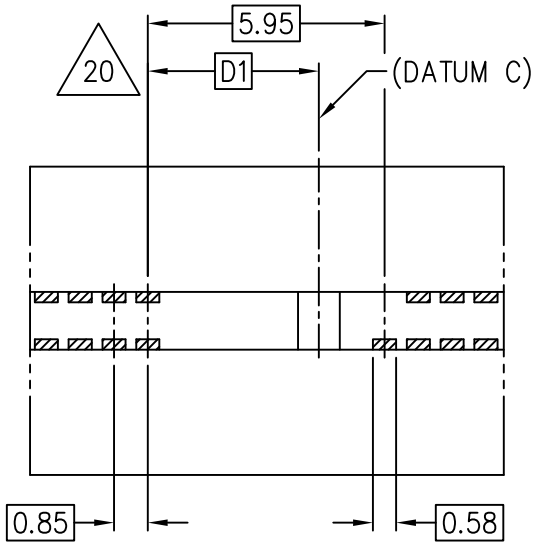
11. THE FIGURE BELOW IS INCLUDED FOR REFERENCE AND DEPICTS A BOUNDARY AREA (OUTER LOCUS) OF A RECTANGULAR GEOMETRY REPRESENTING THE TERMINAL/CONTACT OF THE CONNECTOR. THIS LOCUS INCLUDES ALLOWANCES FOR POSITION AND SIZE TOLERANCES. THE FIGURE SHOWN BELOW DEFINES THE ZONE WITHIN WHICH THE SMT SOLDER TERMINALS (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.

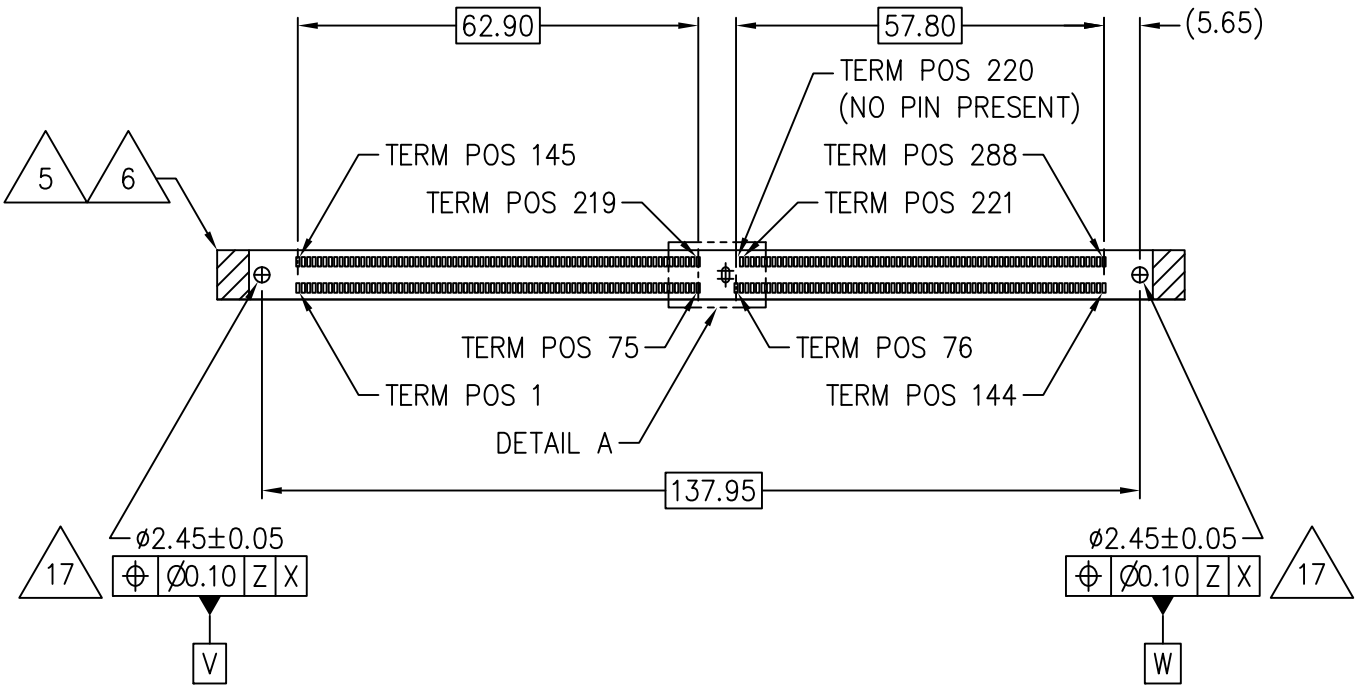
14 THE ENVELOPE FEATURE DEFINED BY THE 133.75 MM DIMENSION IS DRAWN AS CONTINUOUS. IF AS MANUFACTURED, THE FEATURE IS NOT CONTINUOUS, THERE SHALL BE SUFFICIENT MATERIAL TO PREVENT THE MODULE FROM SHIFTING BEYOND THE 133.75 MM DIMENSION FEATURE.

APPLICATION NOTES CONTINUED:

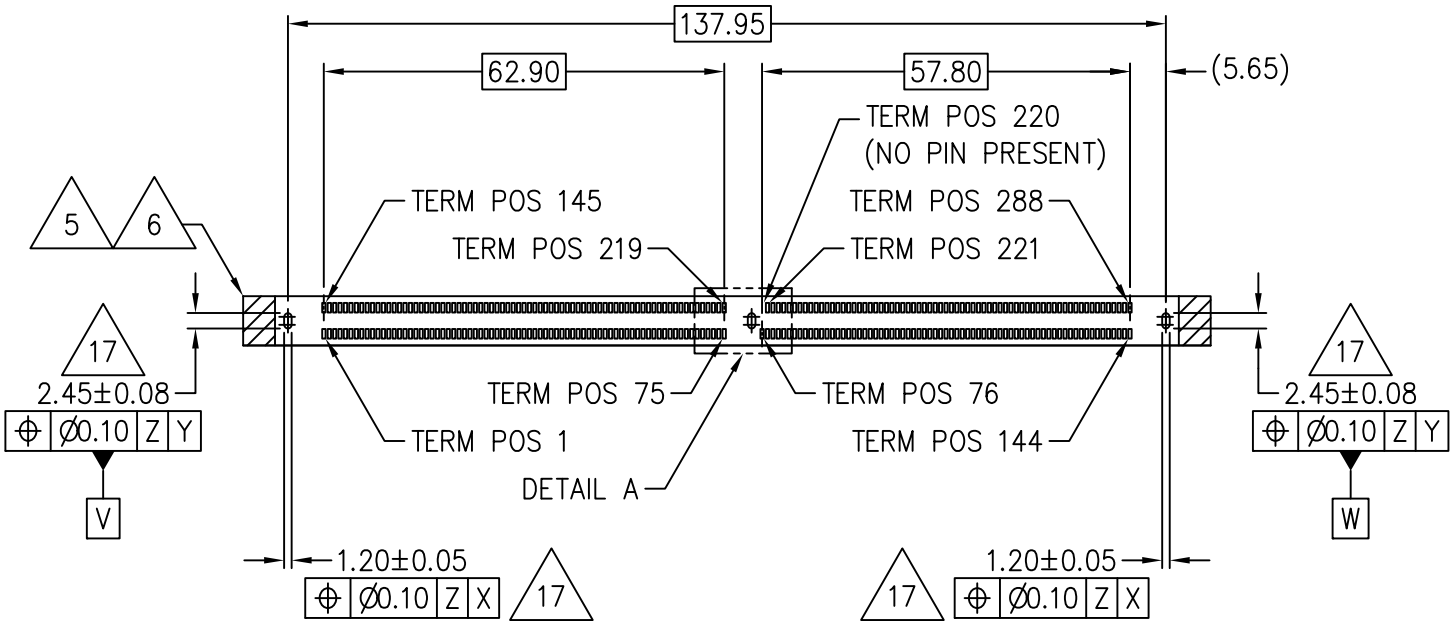
15. IN ORDER TO PREVENT BINDING, DAMAGE, OR POSSIBLE SHORTING BETWEEN TERMINALS, A VERTICAL ALIGNMENT AND INSERTION OF THE MEMORY MODULE INTO THE SOCKET IS RECOMMENDED.

16. REFERENCE PCB FOOTPRINT.

17 PLATED THROUGH HOLE.

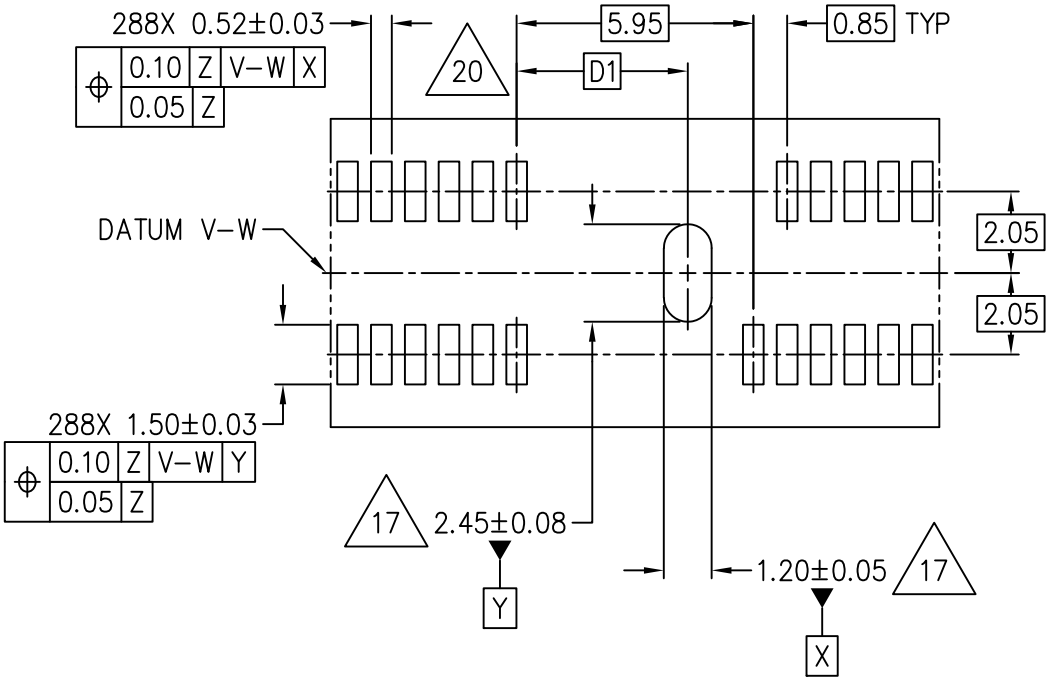


RECOMMENDED PCB FOOTPRINT (OPTION 1)



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.

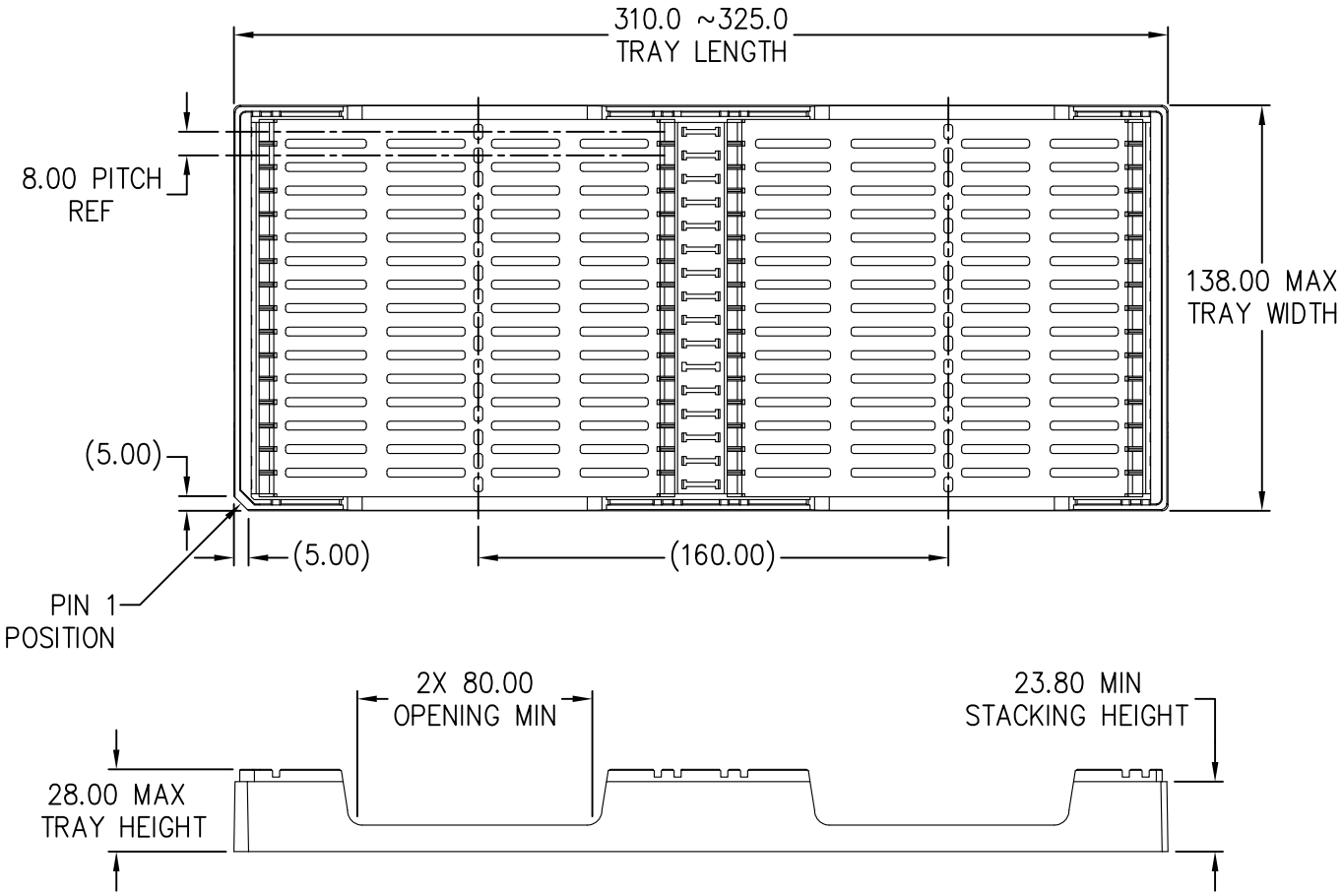
19 THE PIN CONTACT POINT TO SEATING PLANE DIMENSION IS RECOMMENDED FOR CONNECTOR COMPATIBILITY

20 VARIATION Axxx IS DEDICATED FOR DDR5 R/LR DIMM CONNECTOR AND VARIATION Bxxx IS DEDICATED FOR DDR5 UDIMM CONNECTOR

21 A REFERENCE DESIGN WITH NARROW CONNECTOR HOUSING TO ENABLE TIGHT CONNECTOR TO CONNECTOR PITCH, LEAVING GAP BETWEEN TWO CONNECTORS FOR CONNECTOR REWORK.

APPLICATION NOTES CONTINUED:

22. 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-I0p85-R162p0x6p5Z21p3-N5p20S3p1Z0p2_Axxx	JUL 2019	14-196
SO-023C_PDXC-L0288-I0p85-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

CHANGE RECORD HISTORY:

ISSUE: B	DATE: JULY 2019	ITEM NUMBER: 14–196

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–LO288–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

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)

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

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

ISSUE: E	DATE: FEBRUARY 2025	ITEM NUMBER: 14–233

LOCATION:	CHANGED FROM:	CHANGED TO:
SHEET 1	℄ OF 138.60 FEATURE	℄ OF 133.75 FEATURE
SHEETS 5	6.50 MAX	2X 650 MAX
		ADD A REFERENCE DESIGN EXAMPLE WITH NARROW CONNECTOR HOUSING
SHEETS 12		ADD NOTE 21
SHEETS 12	NOTE 21	NOTE 22