

JEDEC SOLID STATE  
PRODUCT OUTLINE

Copyright © 2025 JEDEC. All rights reserved.  
May not be reproduced without permission.

THIS **REGISTERED OUTLINE** WAS PREPARED BY THE JEDEC JC-11 COMMITTEE AND REFLECTS A  
PRODUCT FOR ANTICIPATED USE IN THE ELECTRONICS INDUSTRY. CHANGES ARE LIKELY TO OCCUR.  
USERS ASSUME ALL RISK AND LIABILITY RESULTING FROM THE USE OF THIS OUTLINE.

TITLE  
DDR5 CAMM2,  
1.38 MM X 1.00 MM PITCH  
MICROELECTRONIC ASSEMBLY

PACKAGE DESIGNATOR  
XBMA-N#\_11p0\_...

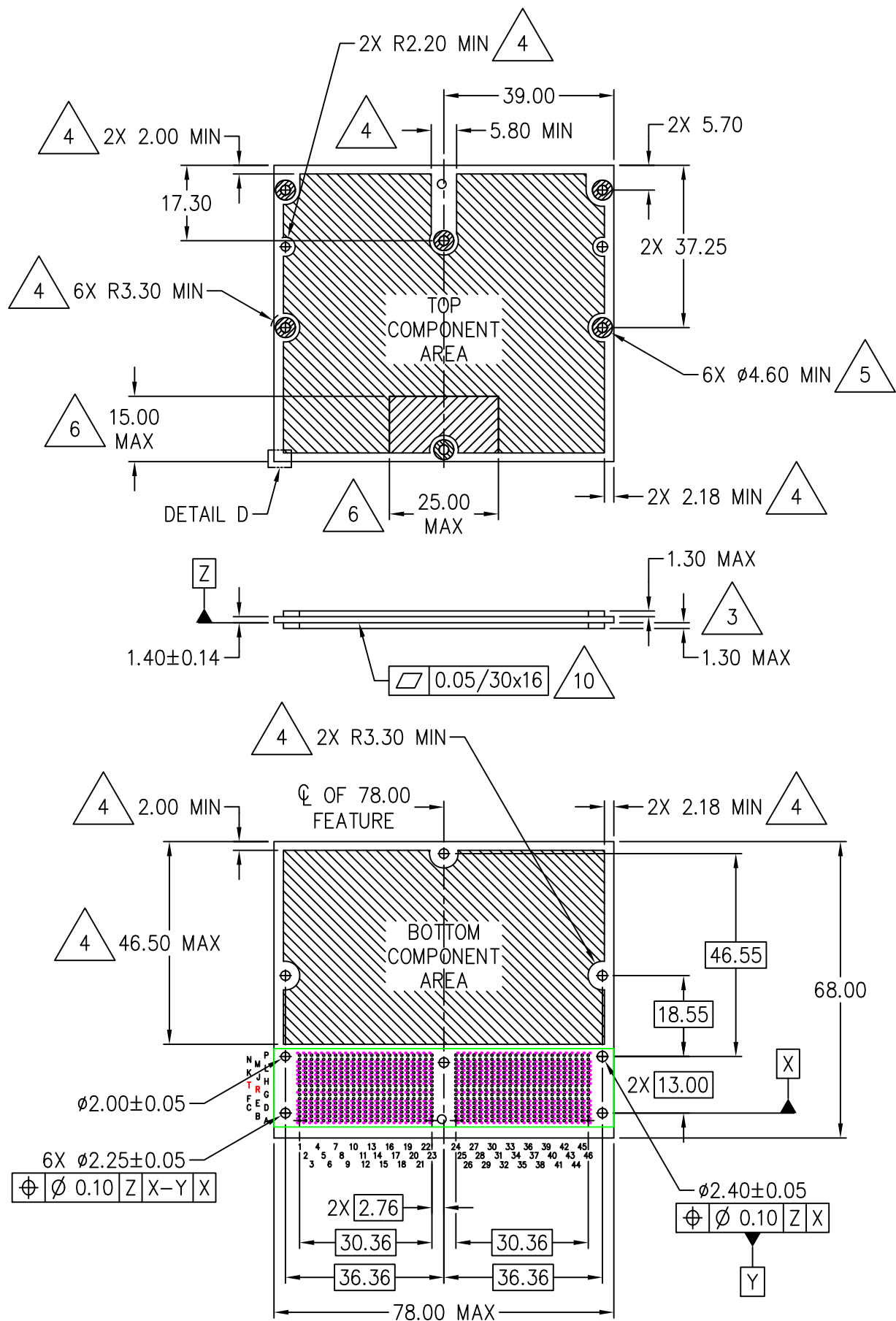
NUMBER  
MO-358

ISSUE  
C

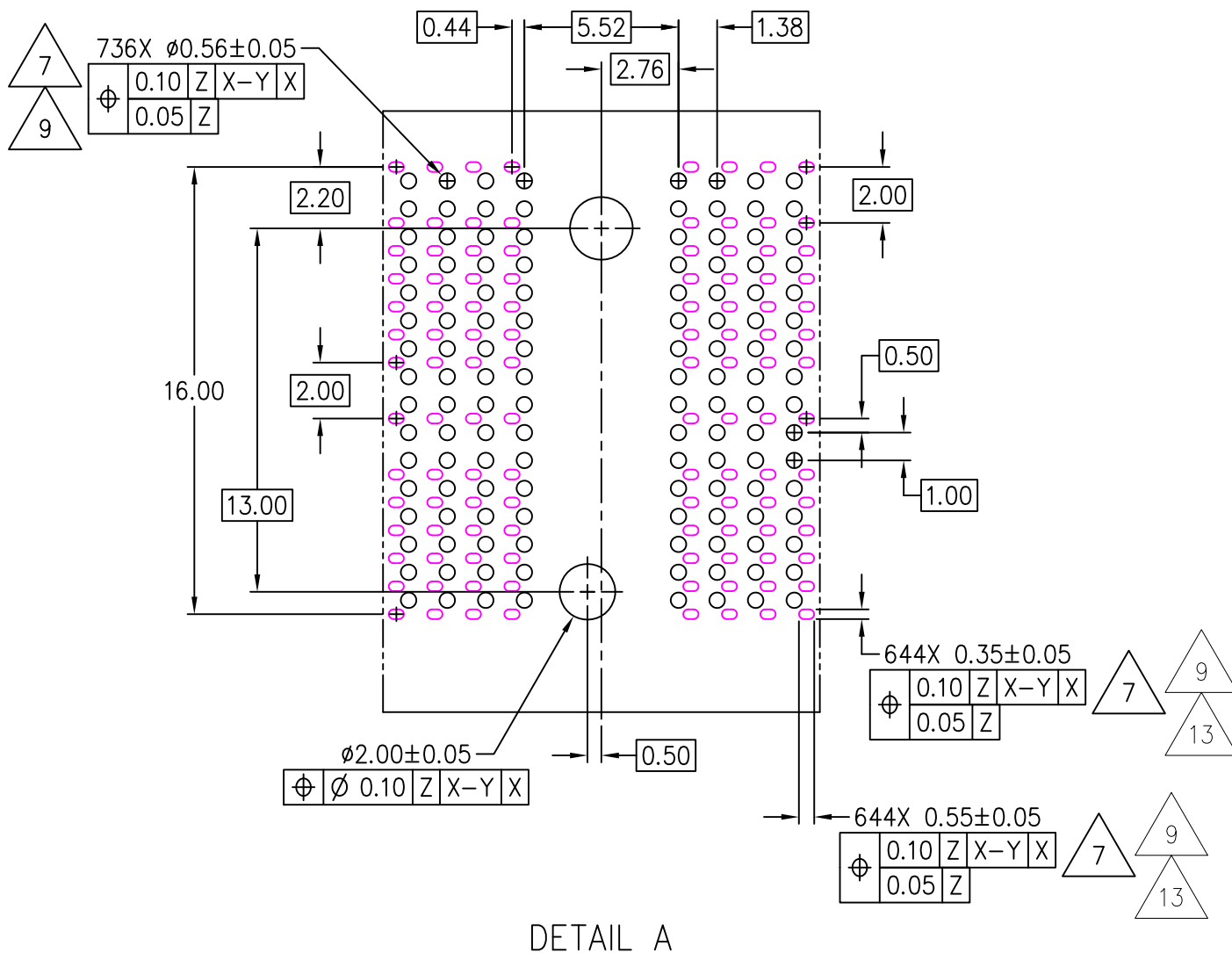
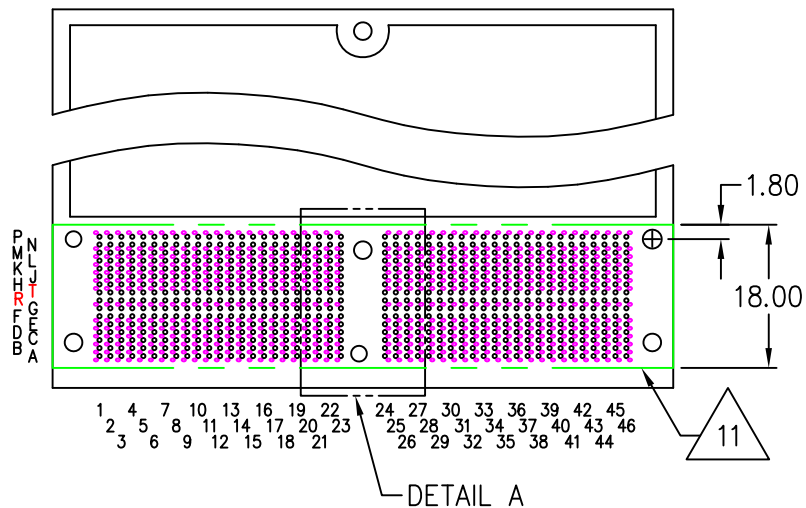
DATE  
AUG 2025

SHEET  
1 OF 10



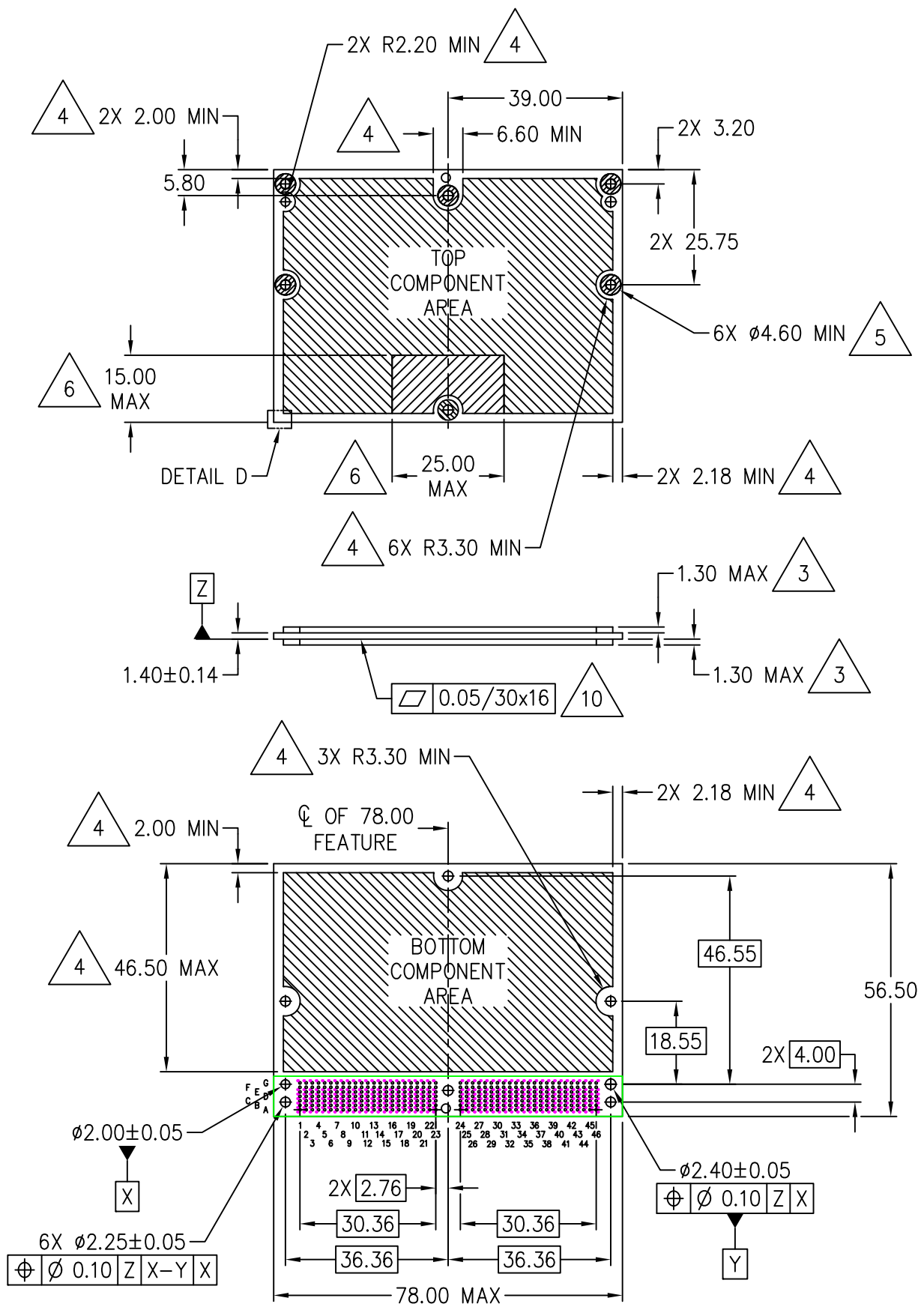


VARIATION CXXX



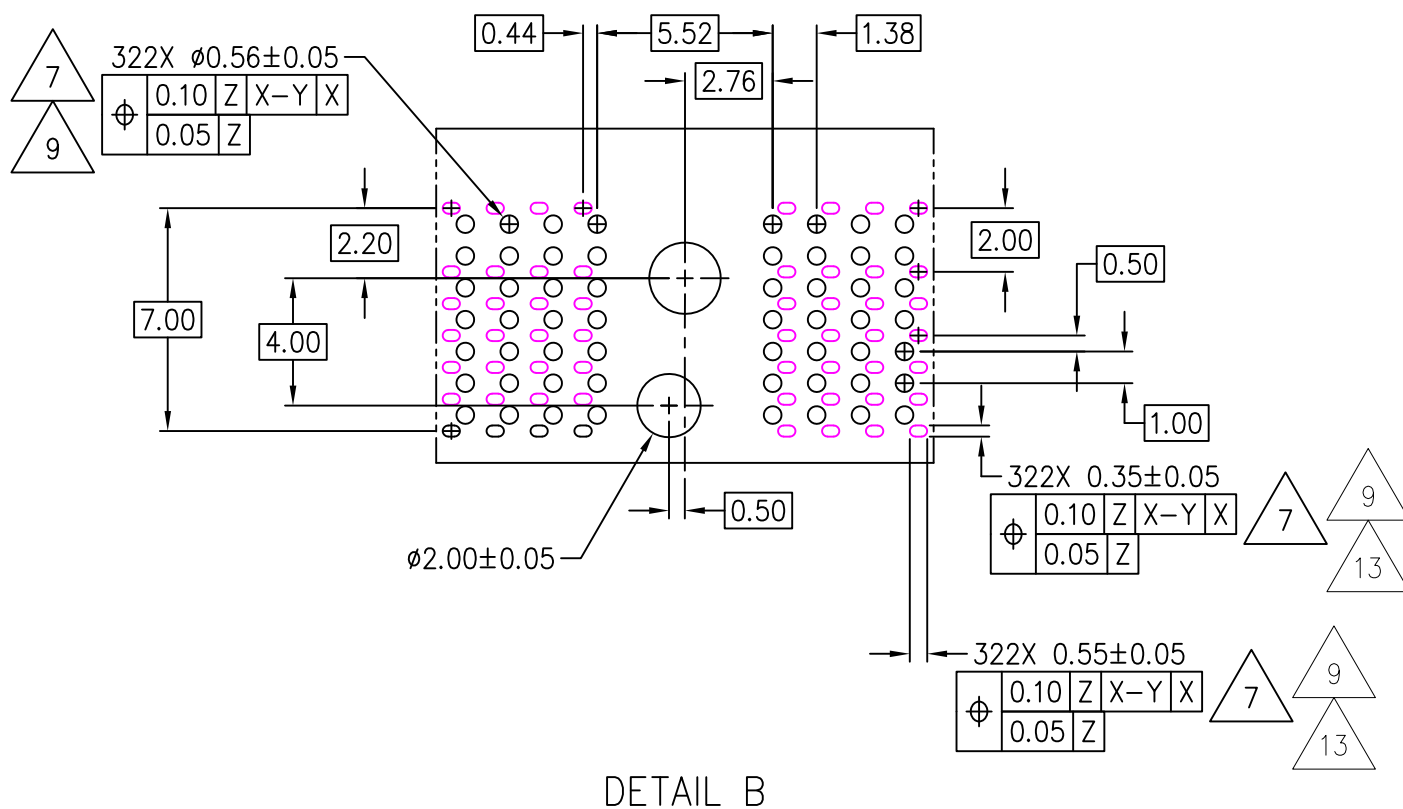
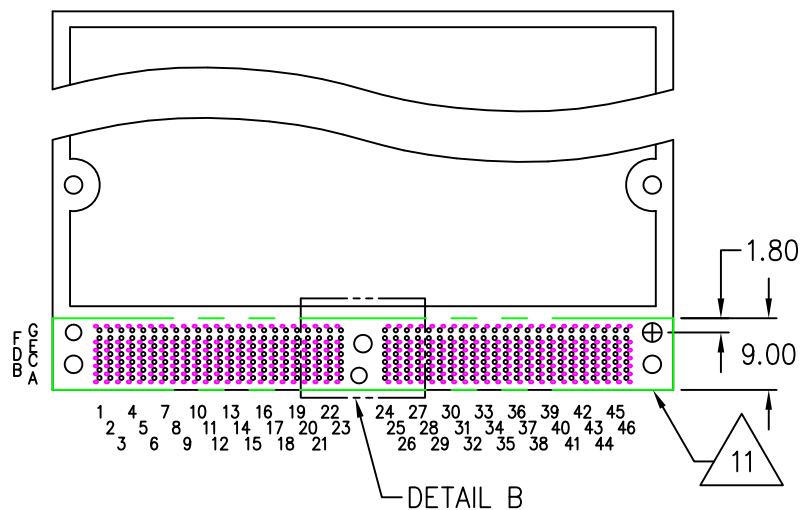
DETAILED REFERENCE PCB FOOTPRINT  
(APPLY TO VARIATION: AXXX/BXXX/CXXX)



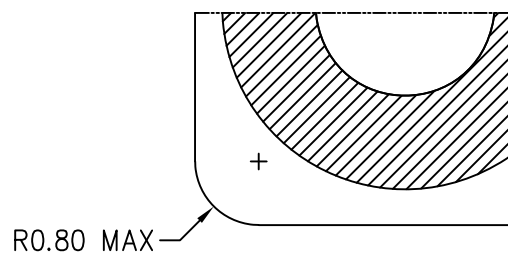
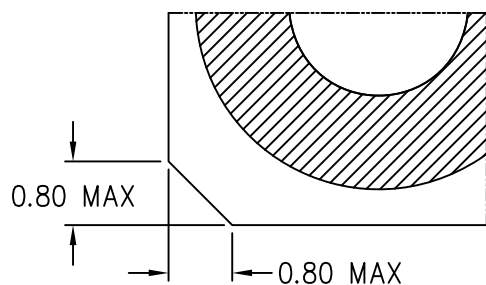


VARIATION EXXX

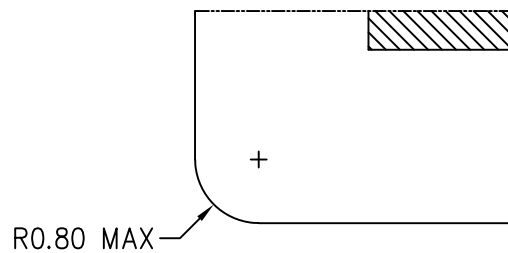
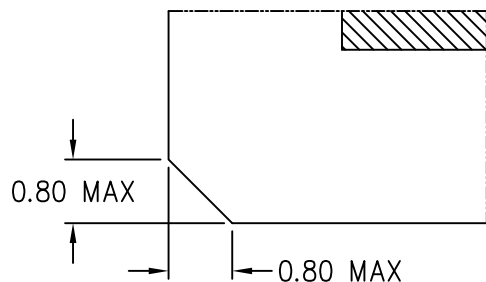
<p>JEDEC SOLID STATE PRODUCT OUTLINE</p> <p>Copyright © 2025 JEDEC. All rights reserved. May not be reproduced without permission.</p>	<p>TITLE</p> <p>DDR5 CAMM2, 1.38 MM X 1.00 MM PITCH MICROELECTRONIC ASSEMBLY</p>	<p>NUMBER</p> <p>MO-358</p>	<p>ISSUE</p> <p>C</p>	<p>DATE</p> <p>AUG 2025</p>	<p>SHEET</p> <p>6 OF 10</p>
--	--	-----------------------------	-----------------------	-----------------------------	-----------------------------



DETAILED REFERENCE PCB FOOTPRINT  
(APPLY TO VARIATION: DXXX/EXXX)



DETAIL C



DETAIL D

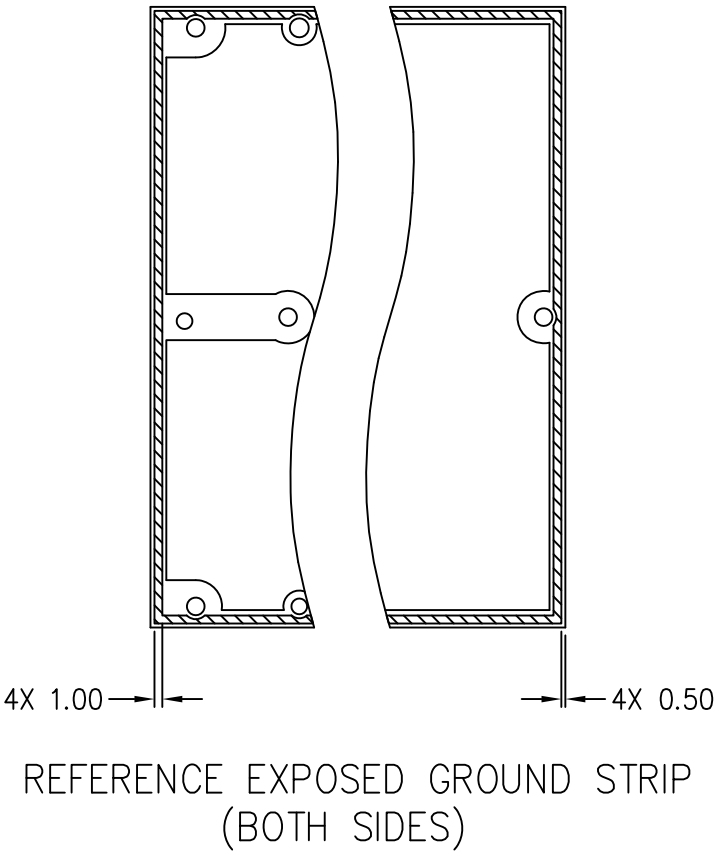
DETAIL C AND D, TYP ALL CORNERS  
ANY COMBINATION OF CHAMFER AND RADII CAN BE USED

JEDEC SOLID STATE PRODUCT OUTLINE Copyright © 2025 JEDEC. All rights reserved. May not be reproduced without permission.	TITLE DDR5 CAMM2, 1.38 MM X 1.00 MM PITCH MICROELECTRONIC ASSEMBLY	NUMBER MO-358	ISSUE C	DATE AUG 2025	SHEET 8 OF 10
---	---	------------------	------------	------------------	------------------



NOTES:

- 1. DIMENSIONING AND TOLERANCING CONFORM TO ASME Y14.5–2009.
- 2. ALL DIMENSIONS ARE IN MILLIMETERS, TOLERANCES ON ALL DIMENSIONS IS  $\pm 0.15$  UNLESS OTHERWISE SPECIFIED.
- 3. DIMENSIONS APPLICABLE WHEN COMPONENTS MOUNTED ON THE MODULE (LABEL NOT INCLUDED).
- 4. BORDER OF COMPONENT AREA.
- 5. BORDER OF VSS NET FOR MODULE RETENTION.
- 6. THE DIMENSION DEFINE THE BOUNDARY OF PMIC AND SPD FOR THERMAL DESIGN.
- 7. SURFACE TERMINAL (A.K.A. CONTACT PAD).
- 8. RESERVED TO ATTACH RFI/EMI SHIELD (APPLY TO VARIATION: AXXX, BXXX, CXXX, DXXX AND EXXX).



NOTES CONTINUED:



PLATING FOR CONTACT TERMINALS ARE:

1) VARIATION Axxx: GOLD PLATING 0.05 MICROMETERS MINIMUM OVER 0.25  
MICROMETERS MINIMUM PALLADIUM OVER 2.00  
MICROMETERS MINIMUM NICKEL.

2) VARIATION Bxxx: GOLD PLATING 0.05 MICROMETERS MINIMUM OVER 2.00  
MICROMETERS MINIMUM NICKEL.

MODULE PLATING RECOMMENDATIONS TESTED PER INDUSTRY STANDARD EIA 364-1000.  
RELIABILITY TESTING REQUIRES TEST MODULE, CONNECTOR, AND IDENTIFICATION OF  
TEST CONDITIONS.



ONLY APPLIES TO THE CONTACT TERMINAL AREA.



SOLDER MASK IS NOT ALLOWED IN THIS AREA ON THE BOTTOM COMPONENT SIDE.



THE OBLONG PADS (DOUBLE-D PER JEP30-P100) ARE GROUND SHIELD CONTACTS FOR  
THE CAMM2 CONNECTOR. THESE ARE NOT ISOLATED COPPER PATTERNS BUT INCLUDED  
IN THE GROUND PLANE OF BOTTOM SURFACE.

14. REFER TO JEDEC REGISTERED OUTLINE SO-032 FOR CONNECTOR DIMENSIONS.

15. SEE JESD30 FOR EXPLANATION OF PACKAGE DESIGNATOR/VARIATION.

STP (3D) FILE RECORD

3D FILE NAMES MAY EXCEED LENGTH REQUIREMENTS FOR SOME SOFTWARE TOOLS.

STP FILE NAME	DATE	ITEM NUMBER
MO-358C-AXXX_XBMA-N736_l1p0_R78p0x40p0Z4p14	AUG 2025	14-218 14-236
MO-358C-BXXX_XBMA-N736_l1p0_R78p0x54p0Z4p14	AUG 2025	14-218 14-236
MO-358C-CXXX_XBMA-N736_l1p0_R78p0x68p0Z4p14	AUG 2025	14-218 14-236
MO-358B-DXXX_XBMA-N322_l1p0_R78p0x28p5Z4p14	JUN 2024	14-229
MO-358B-EXXX_XBMA-N322_l1p0_R78p0x56p5Z4p14	JUN 2024	14-229

## TASK GROUP CONTRIBUTORS

ALIBABA (CHINA) CO. LTD  
AMPHENOL CORPORATION  
ARGOSY RESEARCH INC.  
CHANGXIN MEMORY TECHNOLOGIES INC  
(CXMT)  
DELL INC  
FOXCONN INTERCONNECT TECHNOLOGY  
HEWLETT PACKARD ENTERPRISE  
HP INC  
INTEL CORPORATION  
LENOVO  
LOTES CO, LTD  
LUXSHARE-ICT, INC.  
MOLEX LLC  
SAMSUNG SEMICONDUCTOR  
SHENZHEN DEREN ELECTRONIC CO.  
LTD.  
SMART MODULAR TECHNOLOGIES INC.  
TE CONNECTIVITY  
WLCO SHENZHEN CO., LTD.

JEDEC SOLID STATE PRODUCT OUTLINE <small>Copyright © 2025 JEDEC. All rights reserved. May not be reproduced without permission.</small>	TITLE DDR5 CAMM2, 1.38 MM X 1.00 MM PITCH MICROELECTRONIC ASSEMBLY	NUMBER MO-358	ISSUE C	DATE AUG 2025	SHEET ii
---	---	------------------	------------	------------------	-------------

# 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: SEPTEMBER 2023	ITEM NUMBER: 14-218
------------------	----------------------	---------------------

CHANGE RECORD HISTORY:
------------------------

ISSUE: B	DATE: JUNE 2024	ITEM NUMBER: 14-229
----------	-----------------	---------------------

LOCATION:	CHANGED FROM:	CHANGED TO:
SHEET 3	46.55	46.55
SHEETS 4 & 7		ADDED 2.20 DIMENSION
		ADDED SOLDER MASK KEEPOUT DIMENSIONS
SHEET 5	19.00 MAX 29.50	18.50 MAX 28.50
SHEET 6		ADDED ADDITIONAL HOLE AT 46.55 FROM DATUM Y
	5X $\phi$ 4.60 MIN	6X $\phi$ 4.60 MIN
	5X R3.30 MIN	6X R3.30 MIN
	5X $\phi$ 2.25 $\pm$ 0.05	6X $\phi$ 2.25 $\pm$ 0.05
	2X R3.30 MIN	3X R3.30 MIN
	46.00 MAX COMPONENT AREA	46.50 MAX COMPONENT AREA
SHEET 8		NEW SHEET FOR DETAILS
SHEET 10		ADDED NOTES 9, 10, 11, & 12

# 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.

ISSUE: C	DATE: AUGUST 2025	ITEM NUMBER: 14-236
----------	-------------------	---------------------

LOCATION:	CHANGED FROM:	CHANGED TO:
ALL SHEETS	1.00 MM X 1.38 MM	1.38 MM X 1.00 MM TO MATCH SO
SHEETS 1 – 4		ADDED ROW R & T TERMINALS
SHEET 4	644	736
		ADDED NOTES 9 & 13 TO OBLONG TERMINALS
SHEET 7	644	322
		ADDED NOTES 9 & 13 TO OBLONG TERMINALS
SHEET 9		ADDED (LABEL NOT INCLUDED).
SHEET 10		REMOVE NOTE 12 ADDED NOTES 13, 14, & 15