

3M<sup>TH</sup> SHROUDED BOARDMOUNT HEADER, .05" X .05" (1.27mm X 1.27mm) PITCH,  
LATCH AND EJECT, 452 SERIES

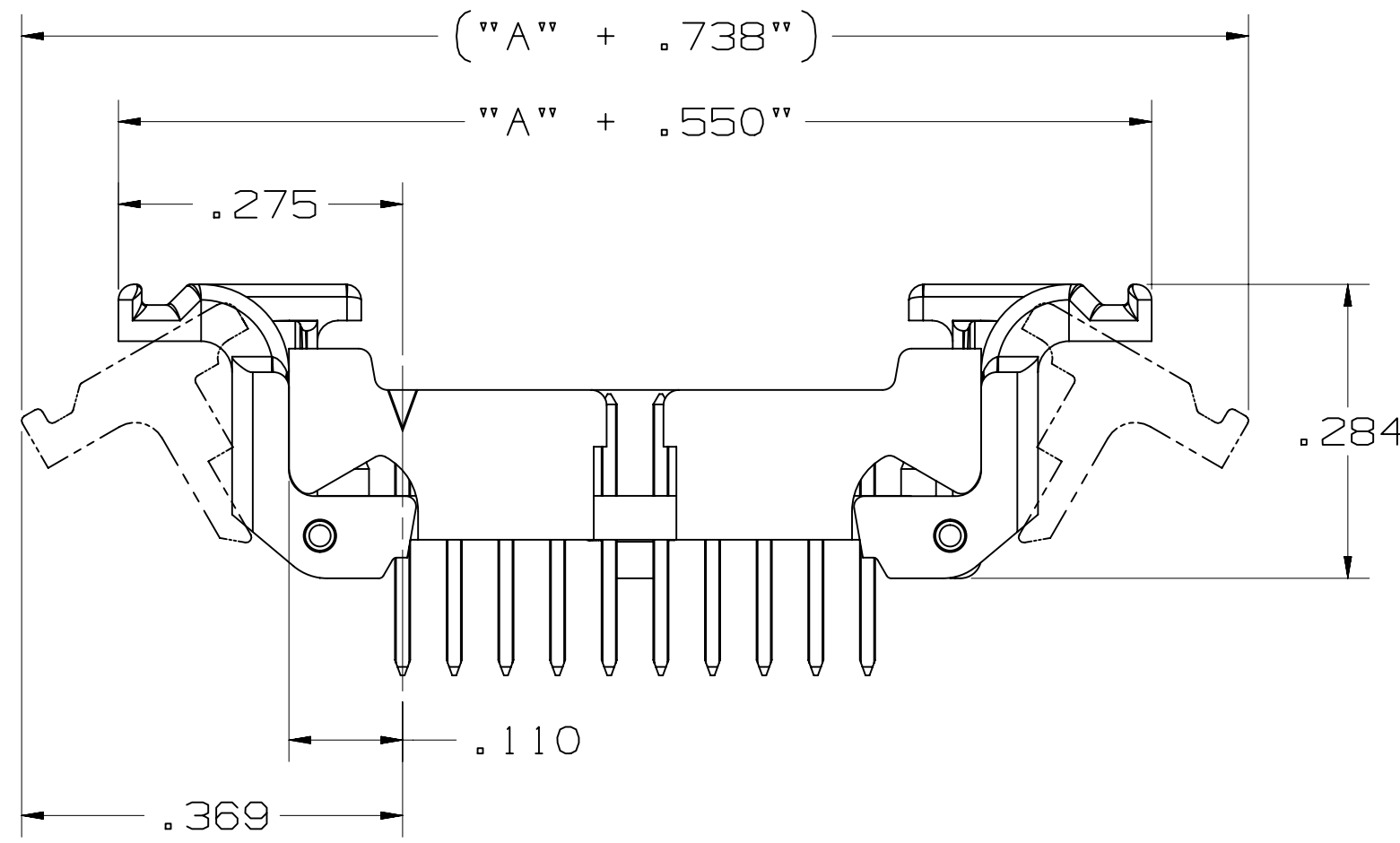
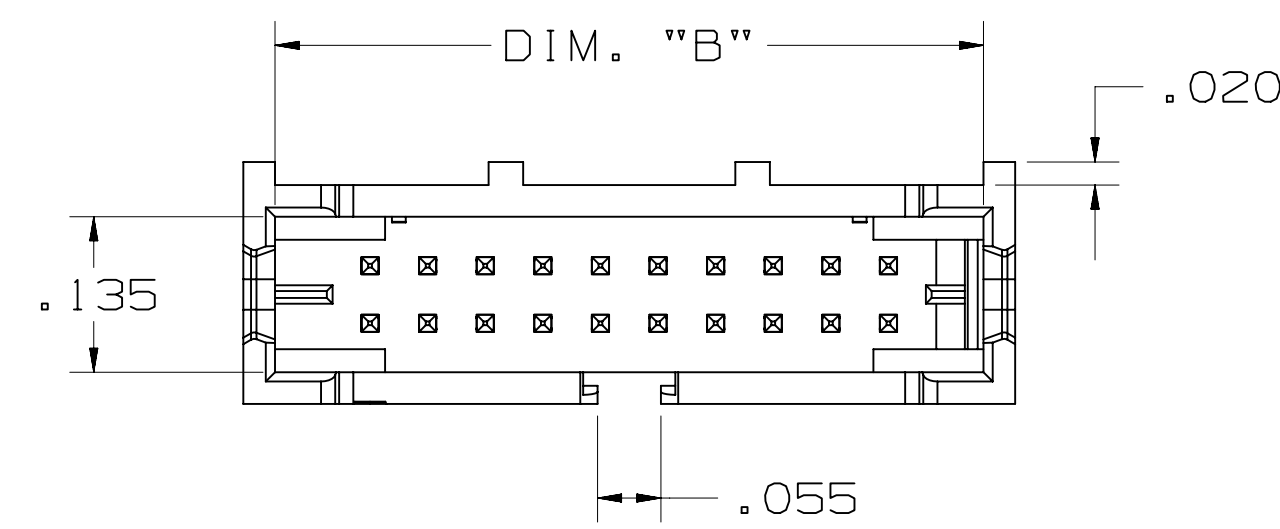
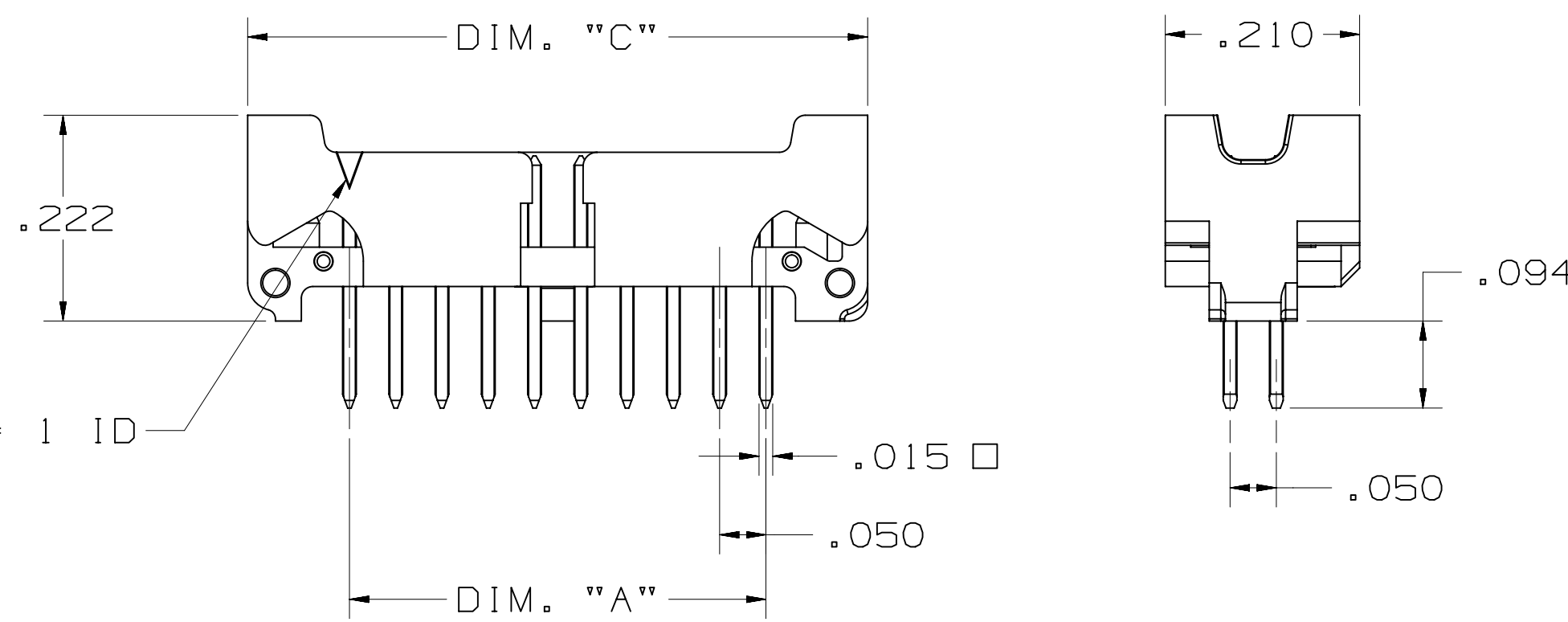


TABLE 1: VERTICAL THRU

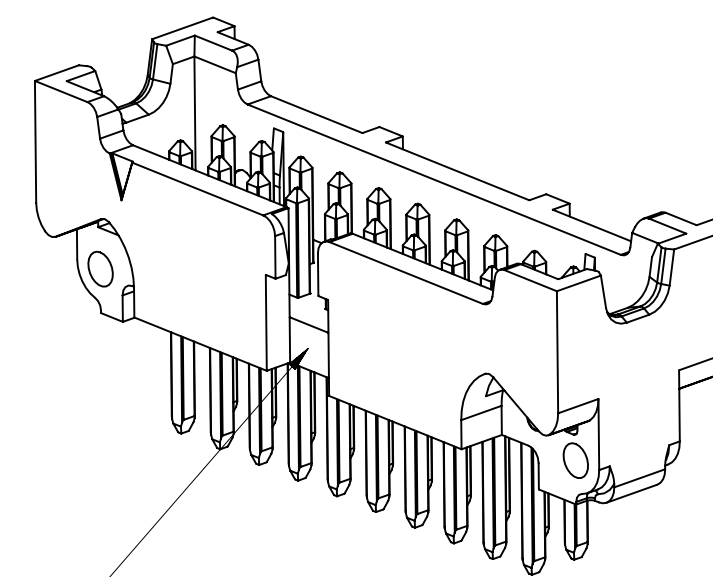
No. Positions	Dim "A"	Dim "B"	Dim "C"
4	.050	.215	.270
6	.100	.265	.320
8	.150	.315	.370
10	.200	.365	.420
12	.250	.415	.470
14	.300	.465	.520
16	.350	.515	.570
20	.450	.615	.670
30	.700	.865	.920

- NOTES
- MATERIAL: BODY: LCP, UL94V-0  
LATCH: PPA, UL94V-0  
CONTACTS: COPPER ALLOY.
  - PLATING: 50-150μ" NICKEL UNDERPLATE  
30 = 30μ" GOLD MIN. ON WIPING AREA WITH 200μ" MATTE TIN ON SOLDER TAIL  
00 = GOLD FLASH ON WIPING AREA WITH 100-140μ" MATTE TIN ON SOLDER TAIL.
  - MATING COMPATIBILITY: 3M .050" X .050", 451 SERIES RIBBON CABLE SOCKET.
  - REGULATORY INFORMATION: ROHS COMPLIANT. SEE THE REGULATORY INFORMATION APPENDIX (RIA) IN THE "ROHS COMPLIANCE" SECTION OF WWW.3MCONNECTORS.COM FOR COMPLIANCE INFORMATION (RIA E1 & C1 APPLY)
  - IN THE EVENT OF CONFLICT BETWEEN THIS DATA AND THAT CONTAINED IN THE PRODUCT SPECIFICATION, THE PRODUCT SPECIFICATION TAKES PRECEDENT.
  - REFERENCE PRODUCT SPEC: 3M DOC ID# 78-5102-0091-4
  - OTHER PIN COUNTS AVAILABLE UPON REQUEST. CONTACT 3M.
  - UNLESS OTHERWISE NOTED, REFERENCES TO INDUSTRY SPECIFICATIONS ARE INTENDED TO INDICATE SUBSTANTIAL COMPLIANCE TO THE MATERIAL ELEMENTS OF THE SPECIFICATION. SUCH REFERENCES SHOULD NOT BE CONSTRUED AS A GUARANTEE OF COMPLIANCE TO ALL REQUIREMENTS IN A GIVEN SPECIFICATION.
  - PACKAGING: VERTICAL THRU: TRAY  
RIGHT ANGLE THRU: TRAY  
VERTICAL SMT: TAPE AND REEL.

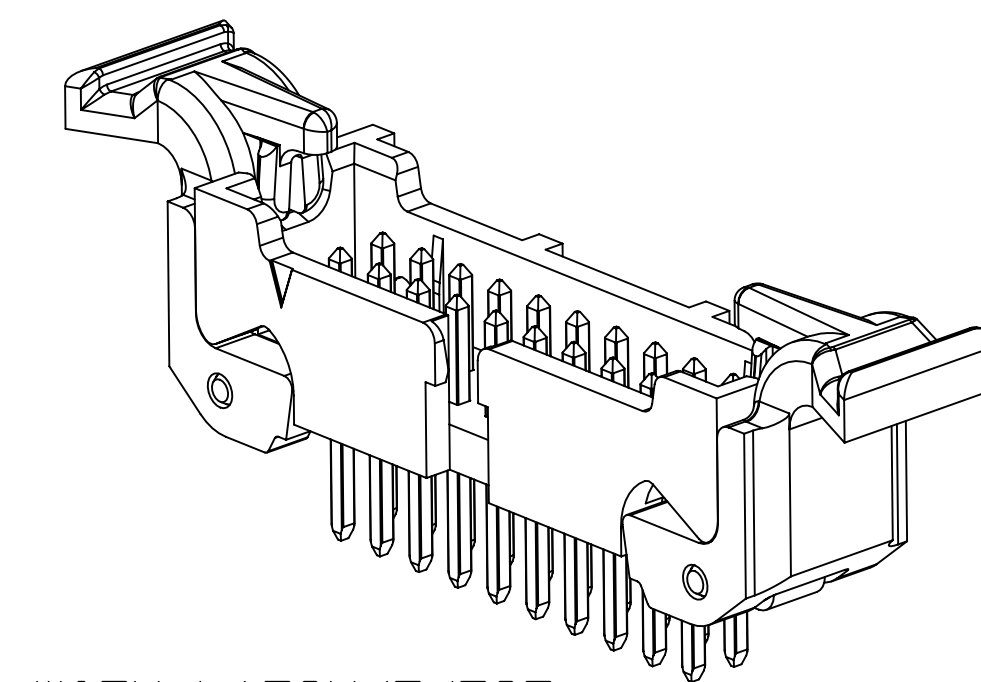
THRU BOARD, VERTICAL WITH LOW PROFILE LATCH/EJECT OPTION



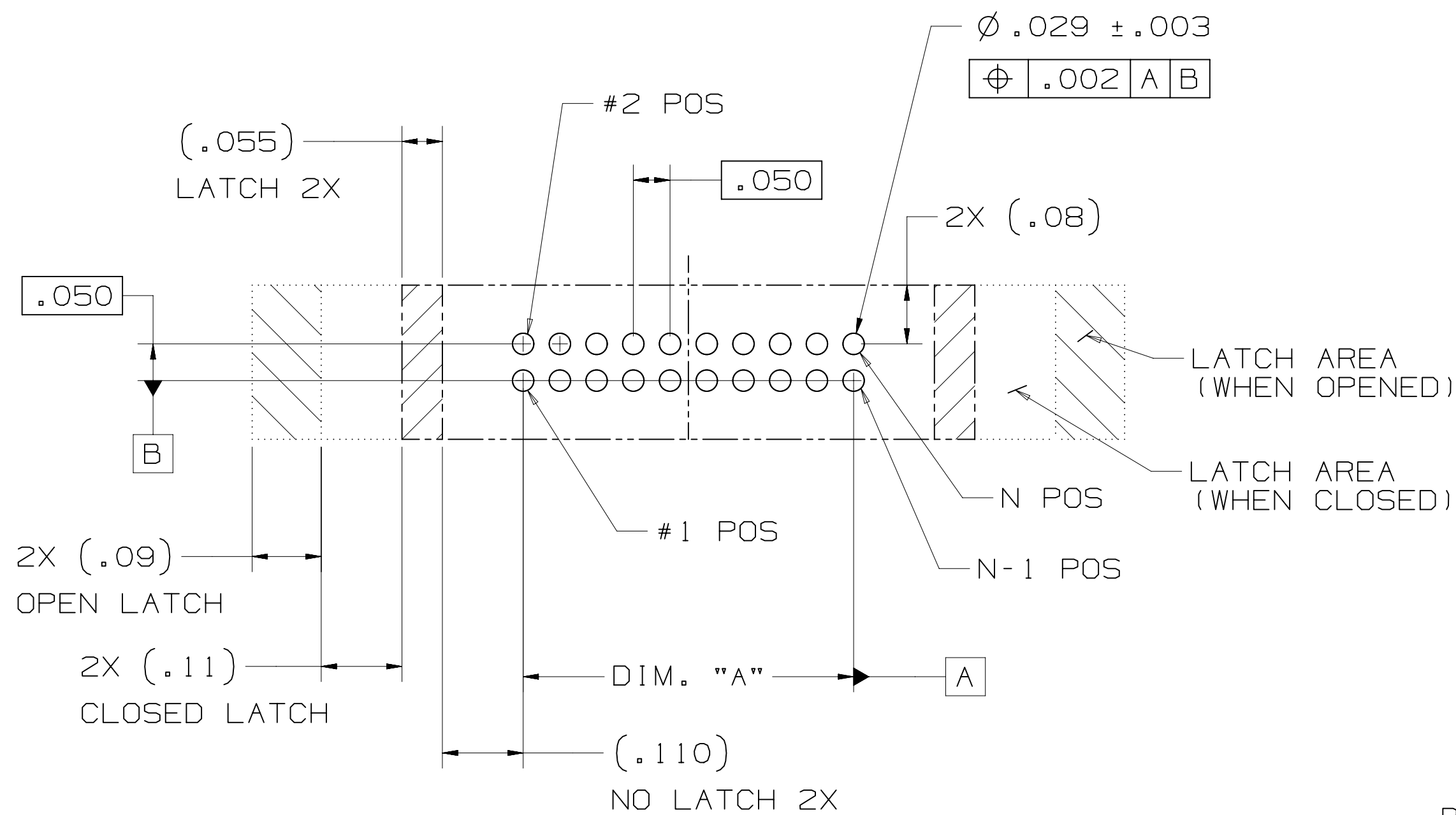
THRU BOARD, VERTICAL



POLARIZATION AND FRICTION LATCHING POSITIONS 8-30 ONLY



WITH LATCH/EJECT



RECOMMENDED BOARD LAYOUT

Performance:

Current Rating:	1.0 A, all lines energized, 30C temp rise per EIA 364-70 1.5 A, 6 lines energized, 30C temp rise per EIA 364-70 2.5 A, 1 line energized, 30C temp rise per EIA 364-70
Voltage Rating:	125V
Insulation Resistance:	> 1 x 10 <sup>9</sup> Ohms at 500 VDC
Withstanding Voltage:	1250VACrms at sea level
Operating Temperature:	-65°C to +105°C
Processing Temperature:	260°C
Lead-Free Solderable:	Yes
Moisture Sensitivity Level:	MSL1 per J-STD-020

452 XX - XX 0 2 XX

SERIES

POSITION COUNT  
04 - 30  
SEE TABLE 1

PLATING  
00 = Au FLASH  
30 = 30μ" GOLD

CONTACT TAIL  
2 = STANDARD (.094")

LATCH/EJECT  
0 = NO LATCHES  
2 = WITH LOW PROFILE LATCHES

PART CONFIG. AND PACKAGING  
6 = VERTICAL THRU HOLE, TRAY PACKAGING  
5 = RIGHT ANGLE THRU HOLE, TRAY PACKAGING  
2 = VERTICAL SMT, TAPE AND REEL WITH VAC CAP

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
		ARM		NOV 29, 2012 PRC		NOV 29, 2012
		SAN		NOV 29, 2012 SAN		NOV 29, 2012

DIVISION: Interconnect Solutions  
 SCALE: 6-1  
 TOLERANCES EXCEPT AS NOTED:  
 INCHES: .00 ± .01, .000 ± .002, .0000 ± .0050  
 MILLIMETERS: .0 ± .01, .00 ± .002, .000 ± .0005  
 INTERPRET PER ASME Y14.5 - 1994  
 MAX SURFACE ROUGHNESS: 1.6 μm (RMS) SURFACES  
 MARKED ONLY

TITLE: BOARDMOUNT HEADER, .05 X .05 PITCH, L/E, 452 SERIES  
 CAGE NUMBER: D78-5100-2437-1  
 MODEL: 1151S YES NO SHT 1 OF 4

3M<sup>TM</sup> ELECTRONIC SOLUTIONS DIVISION  
INTERCONNECT SOLUTIONS  
<http://www.3mconnectors.com>

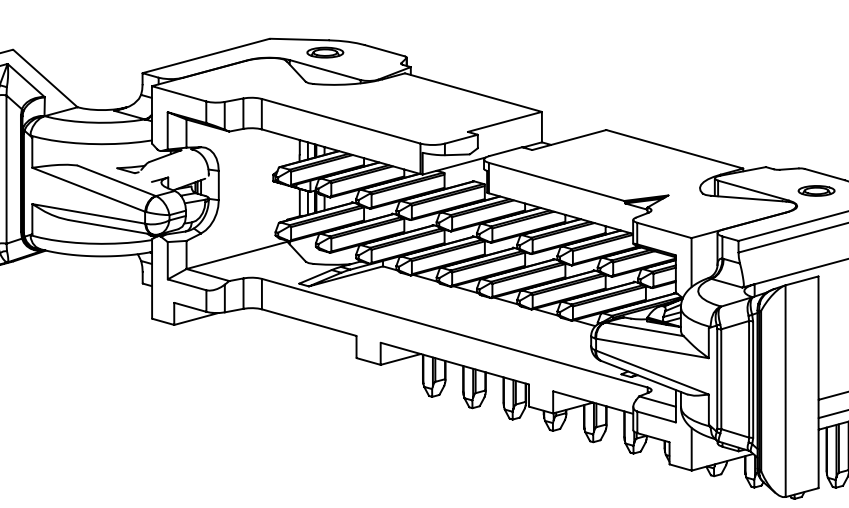
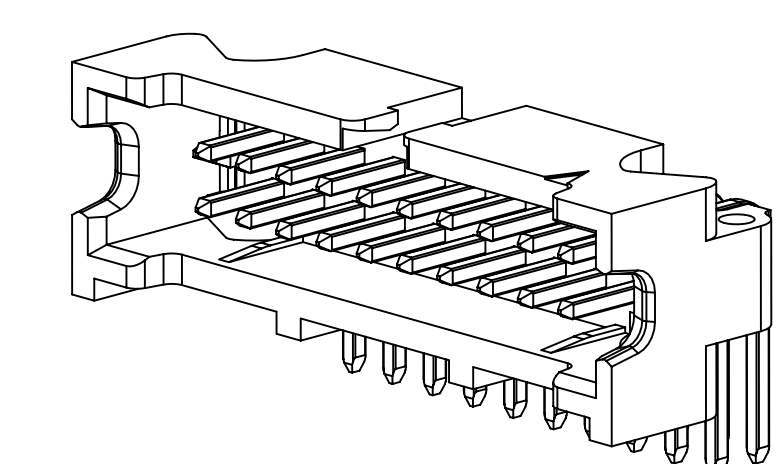
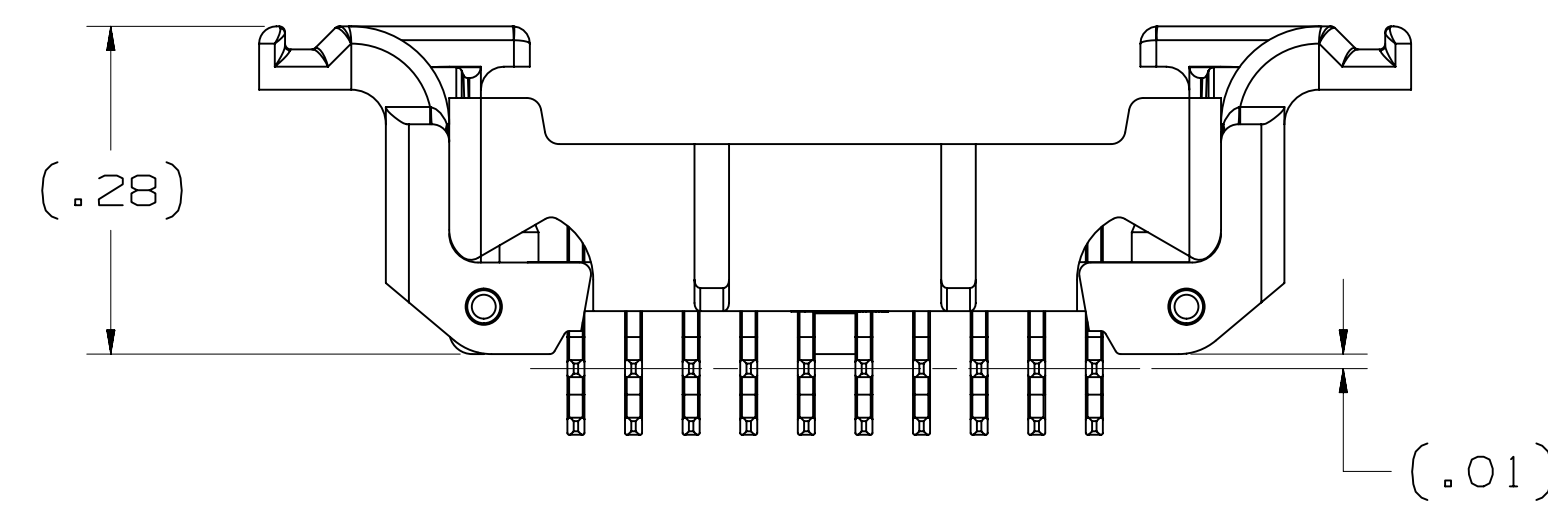
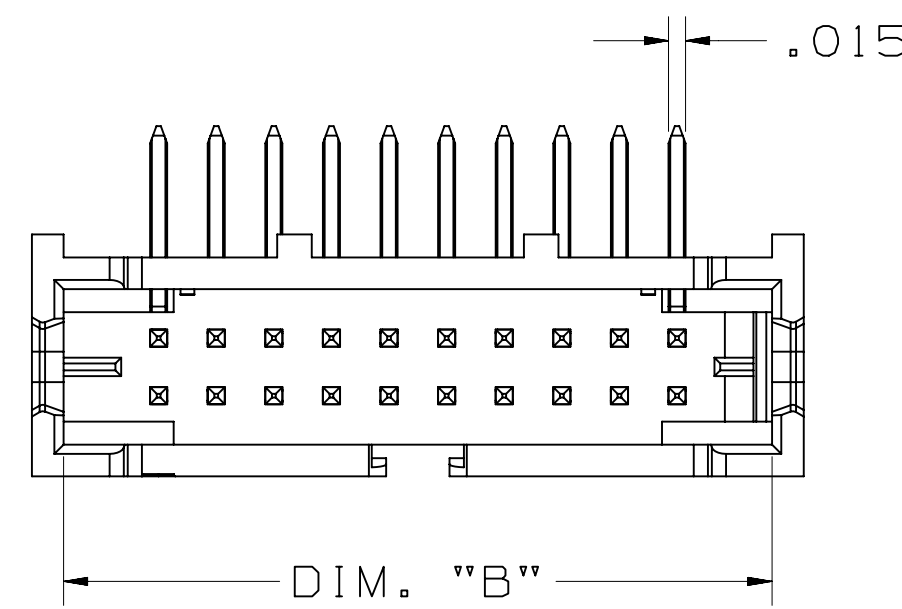
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INFORMATION CALL 800-225-5373

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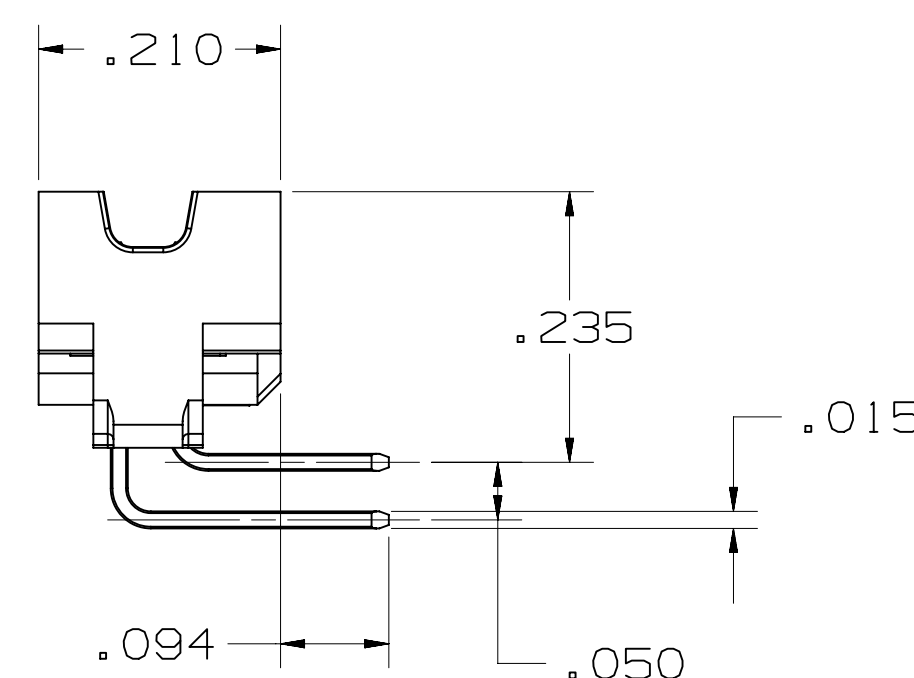
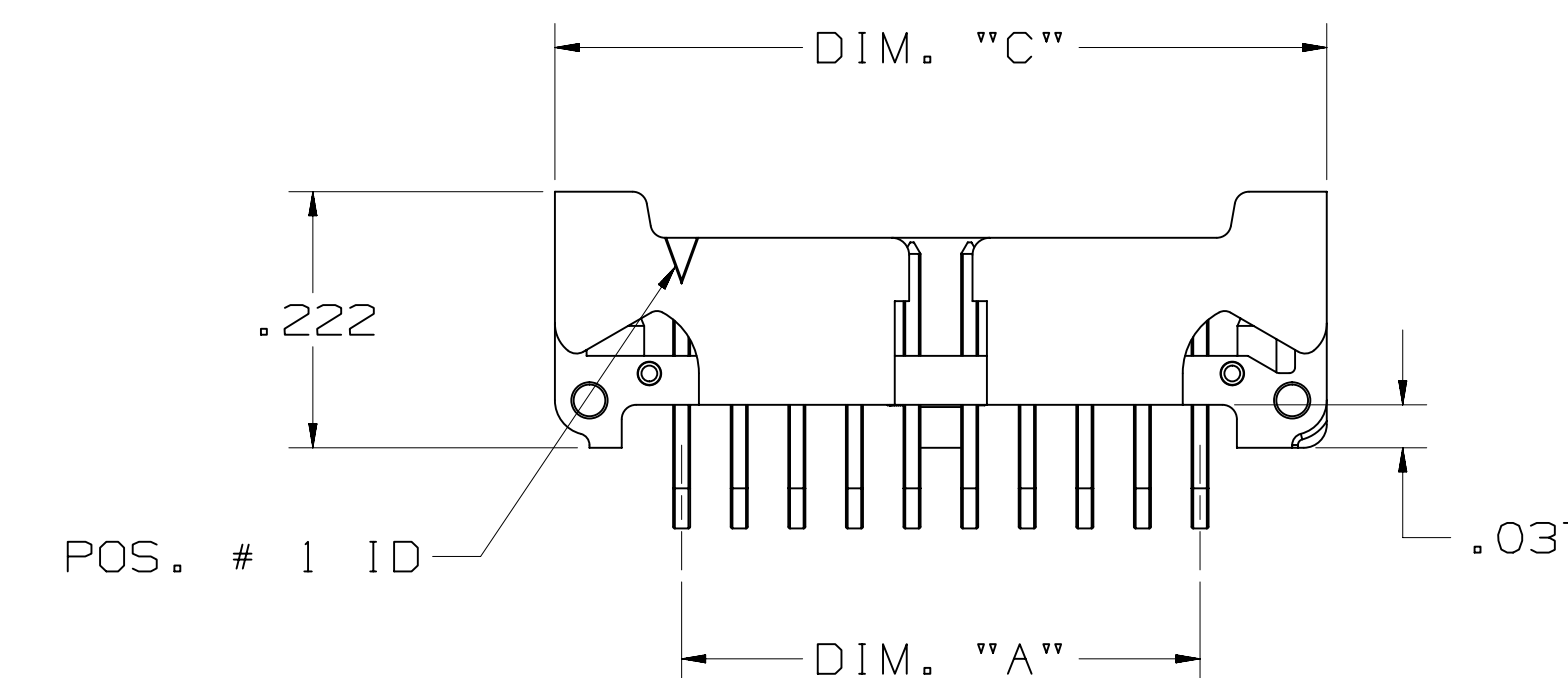
3M<sup>TH</sup> SHROUDED BOARDMOUNT HEADER, .05" X .05" (1.27mm X 1.27mm) PITCH,  
LATCH AND EJECT, 452 SERIES

TABLE 1: RIGHT ANGLE THRU

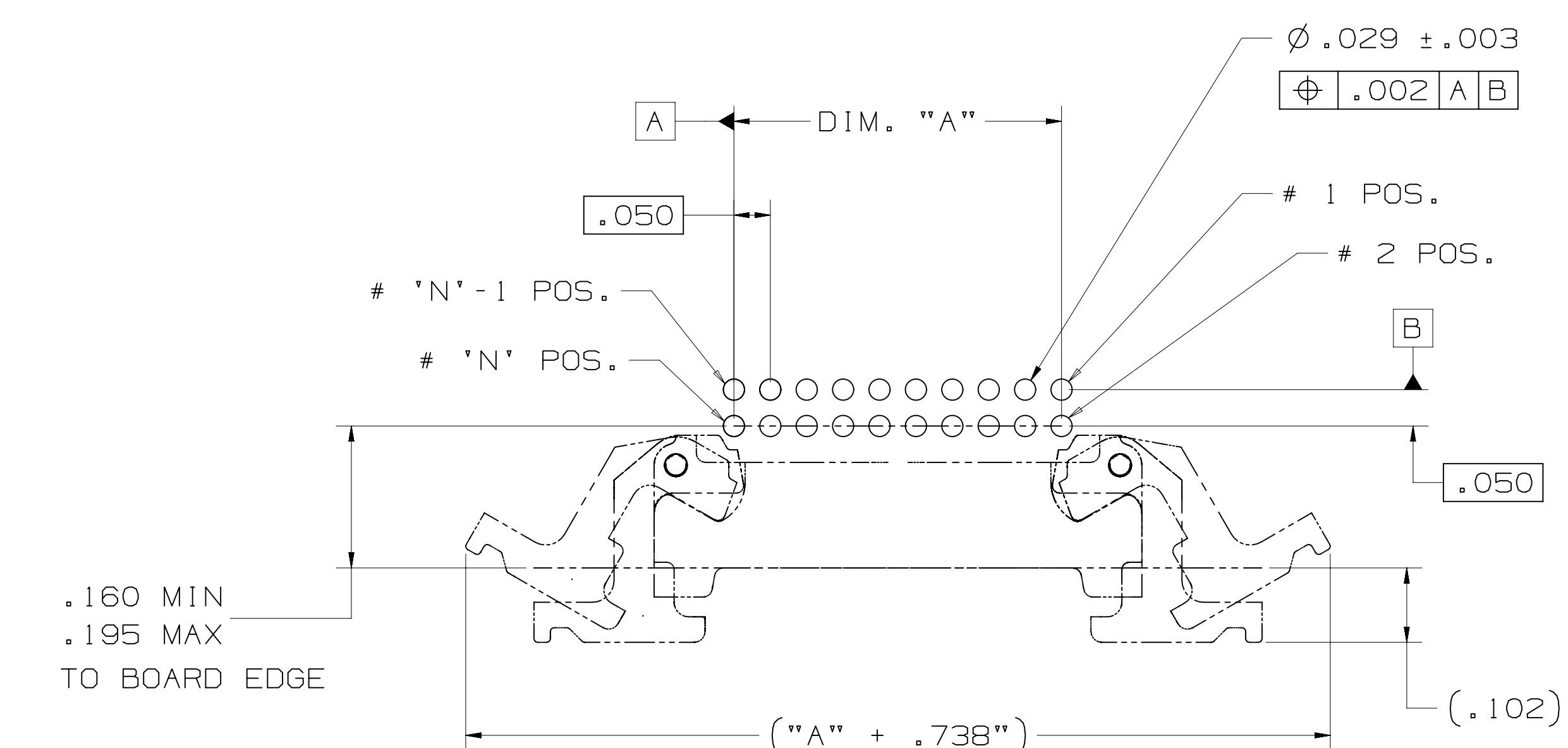
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8	.150	.315	.370
10	.200	.365	.420
12	.250	.415	.470
14	.300	.465	.520
16	.350	.515	.570
20	.450	.615	.670
30	.700	.865	.920



WITH LATCH/EJECT



THRU BOARD, RIGHT ANGLE



RECOMMENDED BOARD LAYOUT

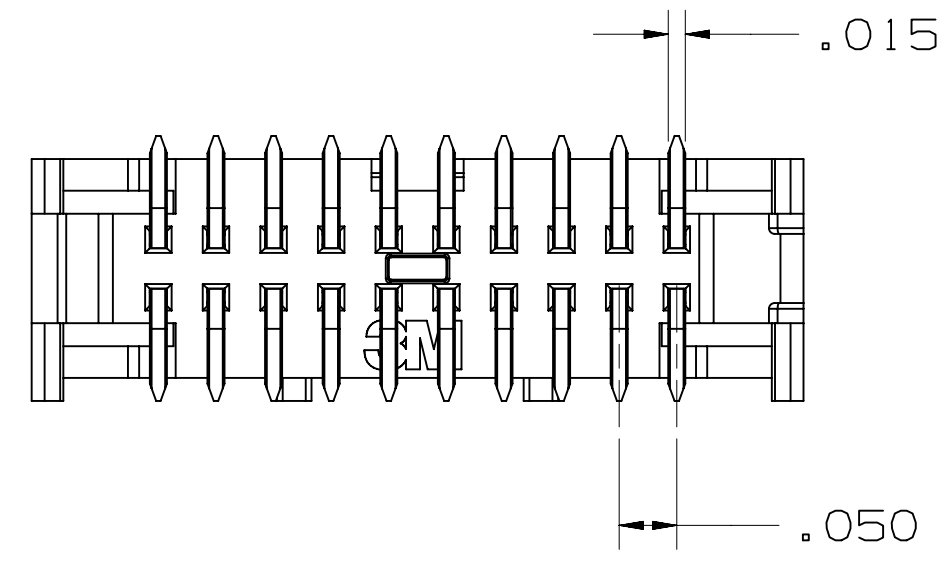
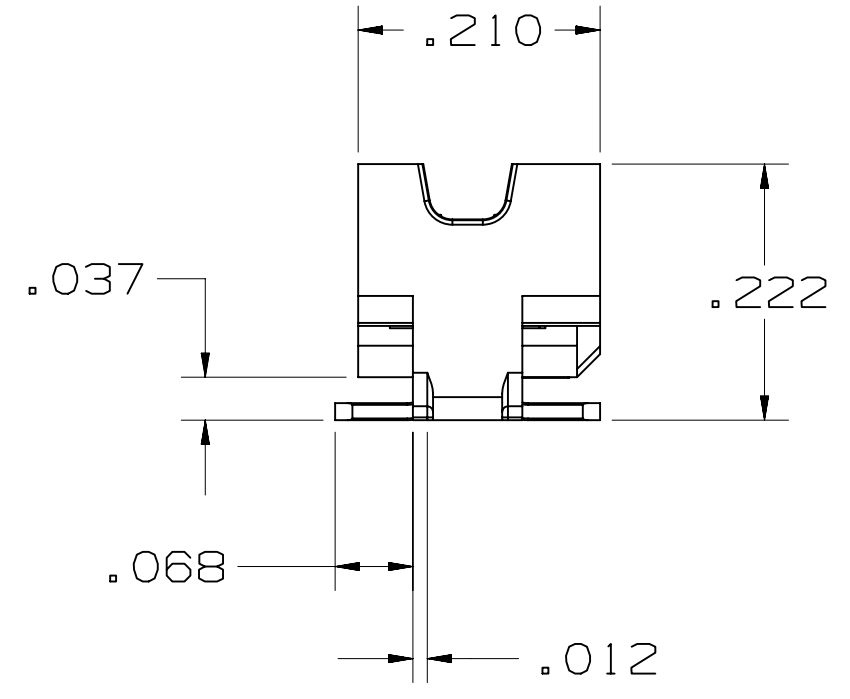
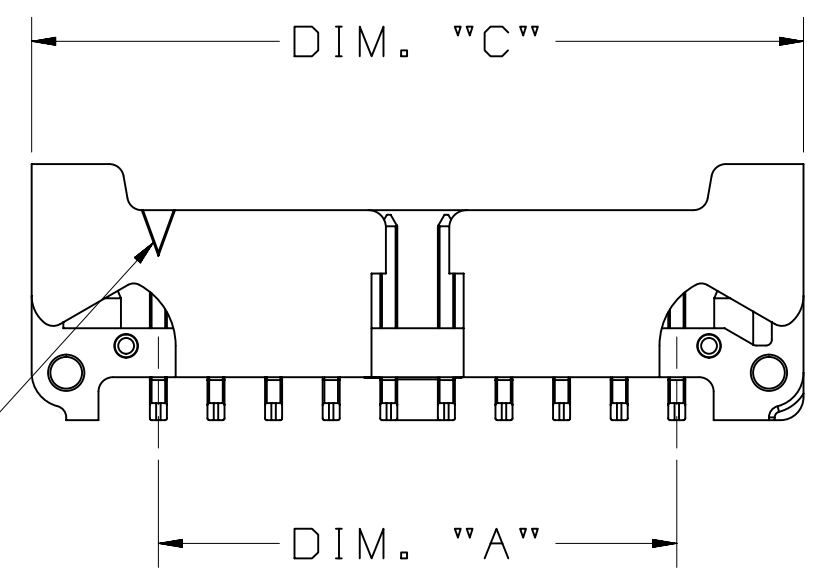
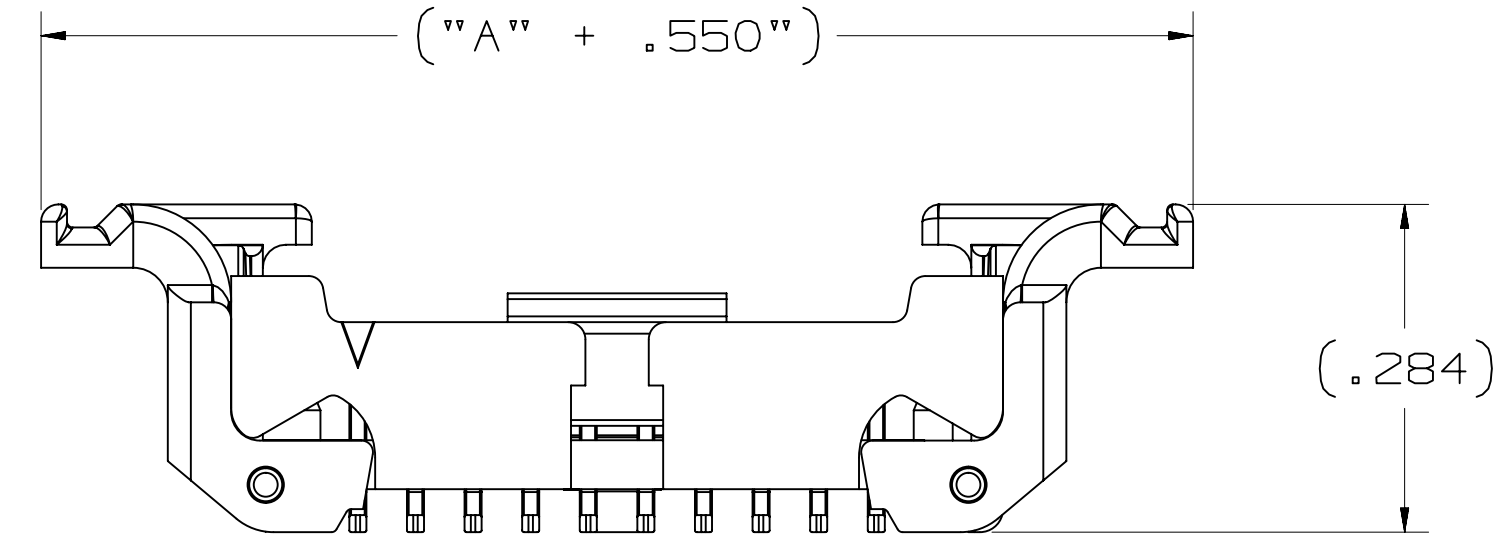
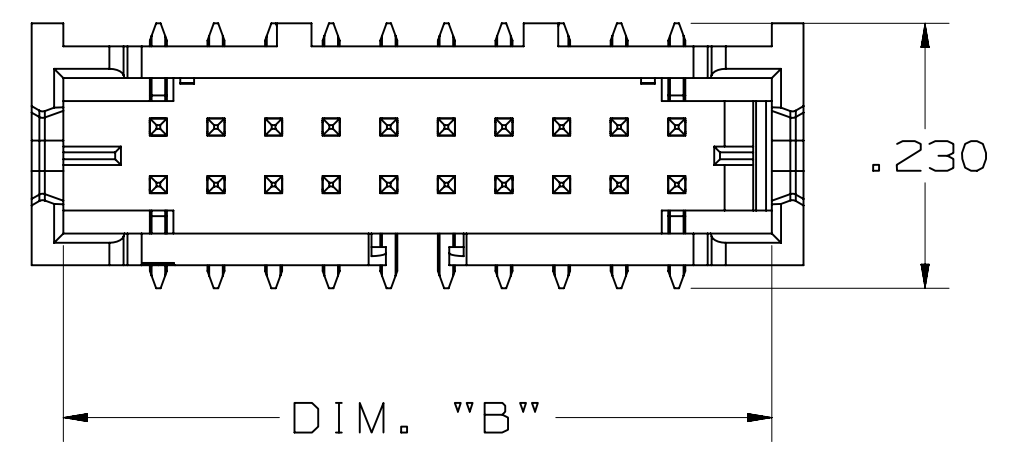
DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
ARM	NOV 29, 2012	PRC	NOV 29, 2012	NOV 29, 2012		
SAK	NOV 29, 2012	SAK	NOV 29, 2012	NOV 29, 2012		
DIVISION: Interconnect Solutions		DIVISION CODE: ISD		© 3M COPYR[IGHT] 2013		
DO NOT SCALE DRAWING	SCALE: 6/1	TOLERANCES EXCEPT AS NOTED		3M Center St. Paul, MN 55144		
THIRD ANGLE PROJECTION	INCHES: .0 ± .1, .00 ± .02, .000 ± .010, .0000 ± .0050	MILLIMETERS: 0 ± .1, .00 ± .01, .000 ± .005		TITLE: BOARDMOUNT HEADER, .05 X .05 PITCH, L/E, 452 SERIES		
INTERPRET PER ASME Y14.5 - 1994	MAX SURFACE ROUGHNESS: SURFACES MARKED ONLY	CAGE NUMBER: D78-5100-2437-1	SIZE: 1	DRAWING NO.:	REV.:	
		MODEL:		DET:	ISTS: YES NO	SHT 2 OF 4

78-5100-2437-1 C REVISION DRAWING NUMBER  
C  
B  
A  
Imaged: C.3.10/29/2013 10:46 AM UTC-05:00

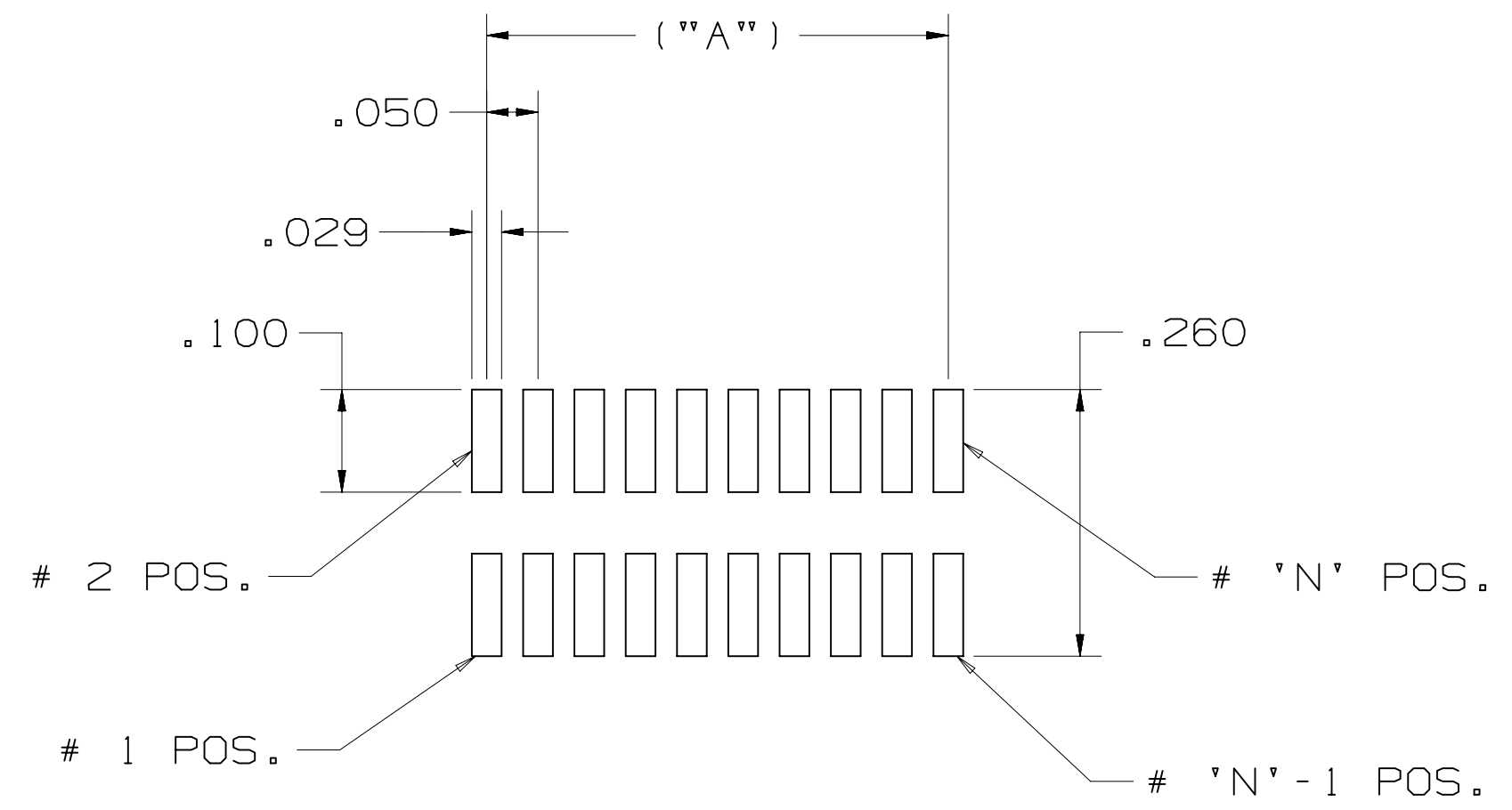
3M<sup>TH</sup> SHROUDED BOARDMOUNT HEADER, .05" X .05" (1.27mm X 1.27mm) PITCH,  
LATCH AND EJECT, 452 SERIES

TABLE 1: VERTICAL SMT

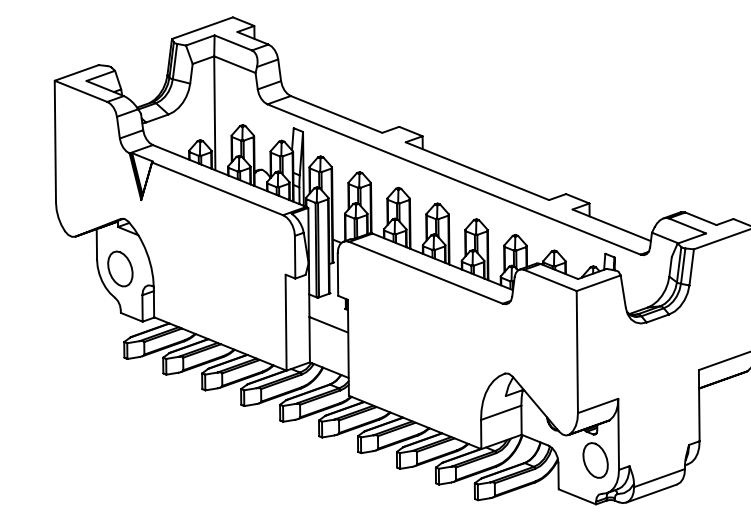
No. Positions	Dim "A"	Dim "B"	Dim "C"
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10	.200	.365	.420
12	.250	.415	.470
14	.300	.465	.520
16	.350	.515	.570
20	.450	.615	.670
30	.700	.865	.920



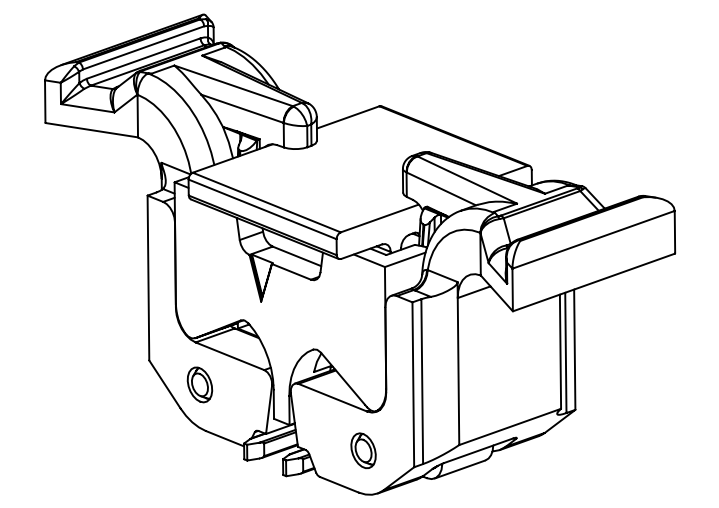
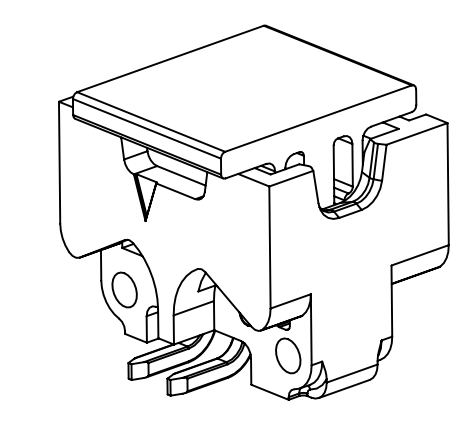
SURFACE MOUNT, VERTICAL



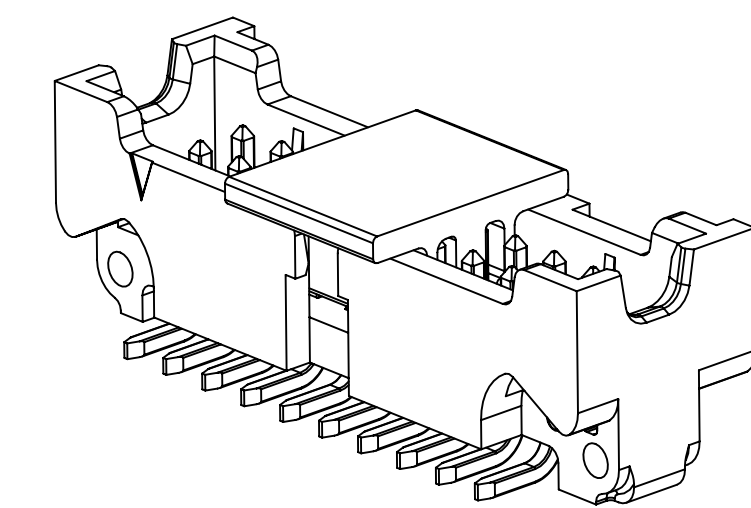
RECOMMENDED BOARD LAYOUT



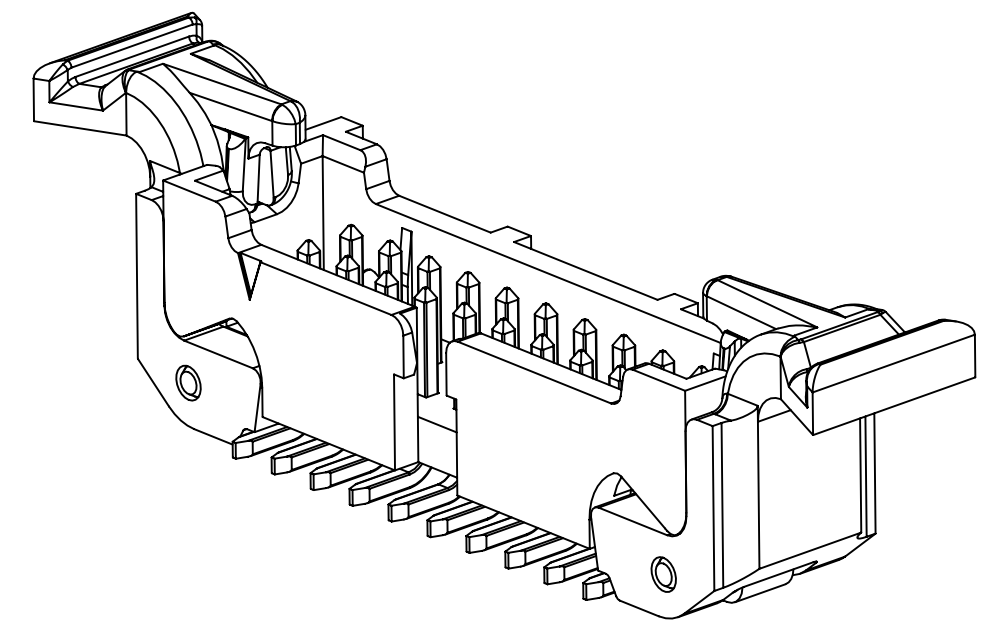
SHROUDED SMT HEADER



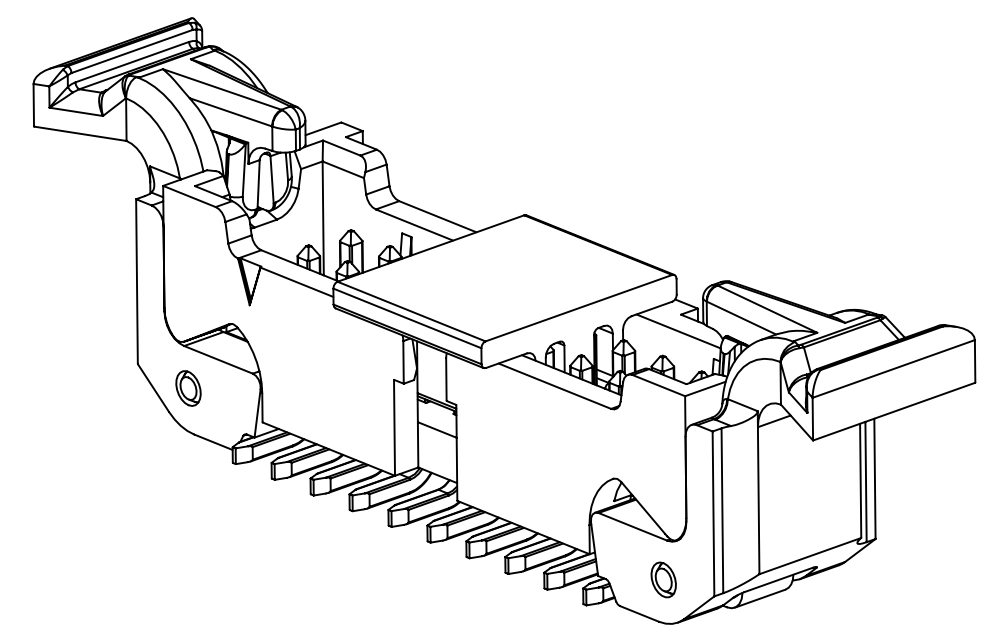
VACUUM CAP SEATED ON TOP  
EDGES OF END WALLS ON  
POSITIONS 4 AND 6



WITH VACUUM CAP



WITH LATCH/EJECT



WITH LATCH/EJECT  
AND VACUUM CAP  
VACUUM CAP IS FULLY SEATED  
ON POSITIONS 8 THRU 30

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
ARM				NOV 29, 2012 PRC		NOV 29, 2012
DIVISION	DIVISION CODE	DRFT	DATE	APPRV	DATE	APPRV
Interconnect Solutions	ISD	SAN	NOV 29, 2012	SAN	NOV 29, 2012	SAN
DO NOT SCALE DRAWING	SCALE 6-1	© 3M COPYRIGHT 2013 This document and the information it contains are 3M property and may not be reproduced or further distributed without 3M permission, or used or disclosed other than for 3M authorized purposes. All rights reserved.				
THIRD ANGLE PROJECTION	TOLERANCES EXCEPT AS NOTED	INCHES .0 ± .1 .00 ± .02 .000 ± .010 .0000 ± .0050				
INTERPRET PER ASME Y14.5 - 1994	MILLIMETERS	.0 ± .00 ± .000 ± .000 ±				
MAX SURFACE ROUGHNESS	MARKED ONLY	MODEL CAGE NUMBER SIZE DRAWING NO. <b>D78-5100-2437-1</b>				
		REV. NUMBER DET SHT 3 OF 4				

78-5100-2437-1  
 DRAWING NUMBER  
 C  
 REVISION  
 B  
 A  
 C  
 D  
 8  
 7  
 6  
 5  
 4  
 3  
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 1  
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3M<sup>TH</sup> SHROUDED BOARDMOUNT HEADER, .05" X .05" (1.27mm X 1.27mm) PITCH,  
LATCH AND EJECT, 452 SERIES

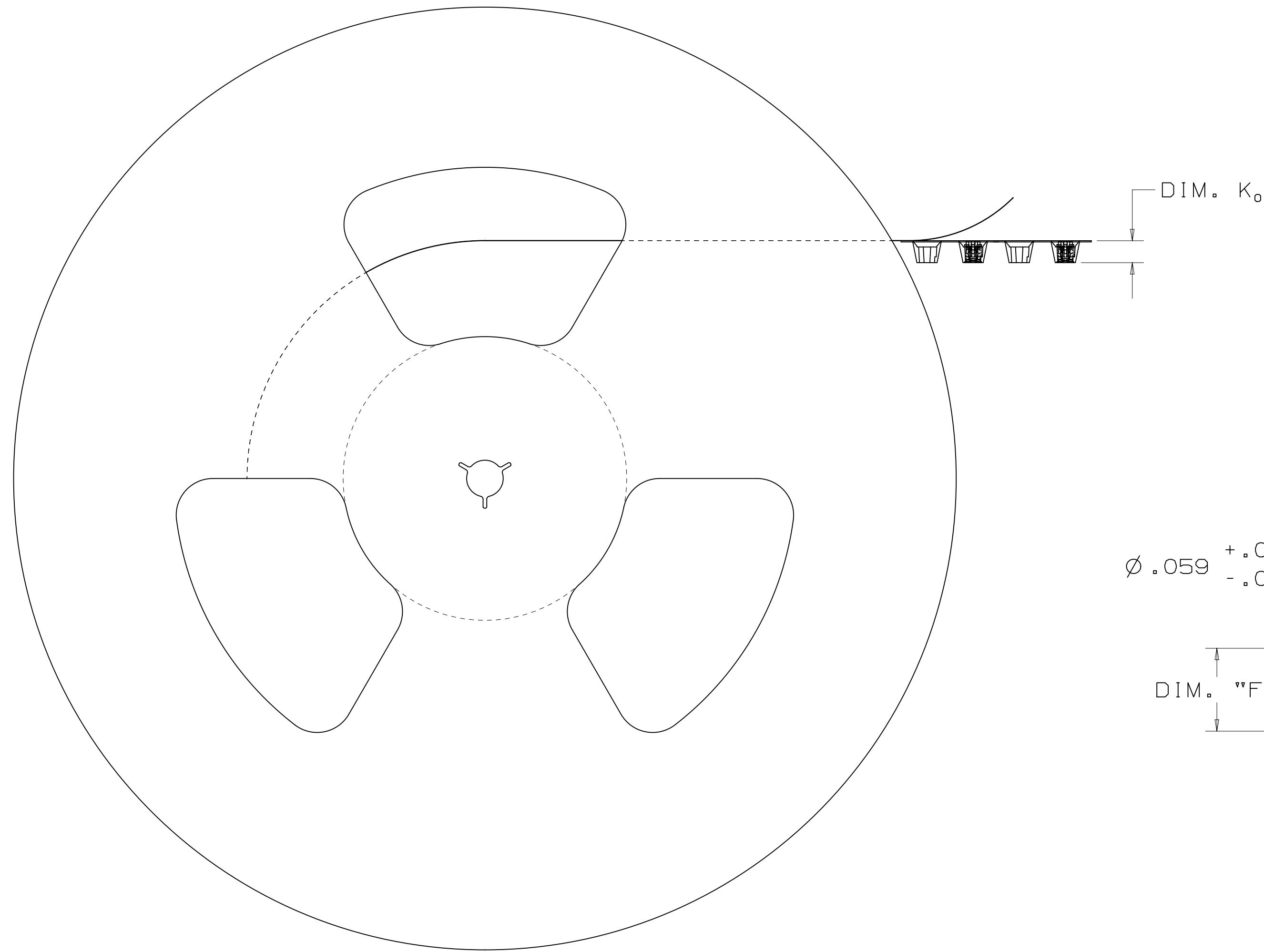
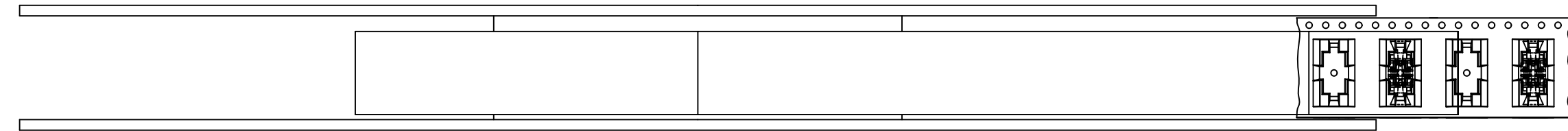
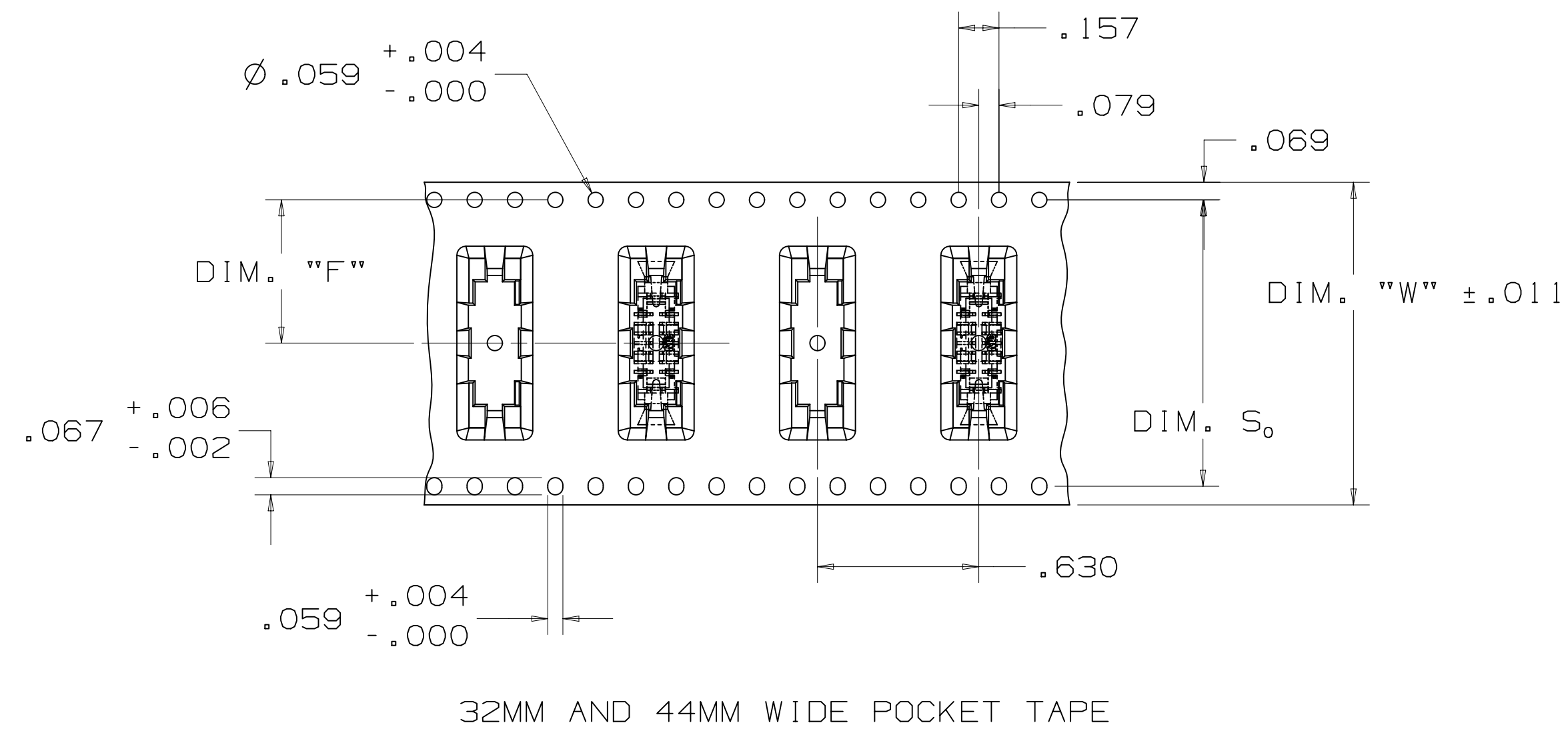
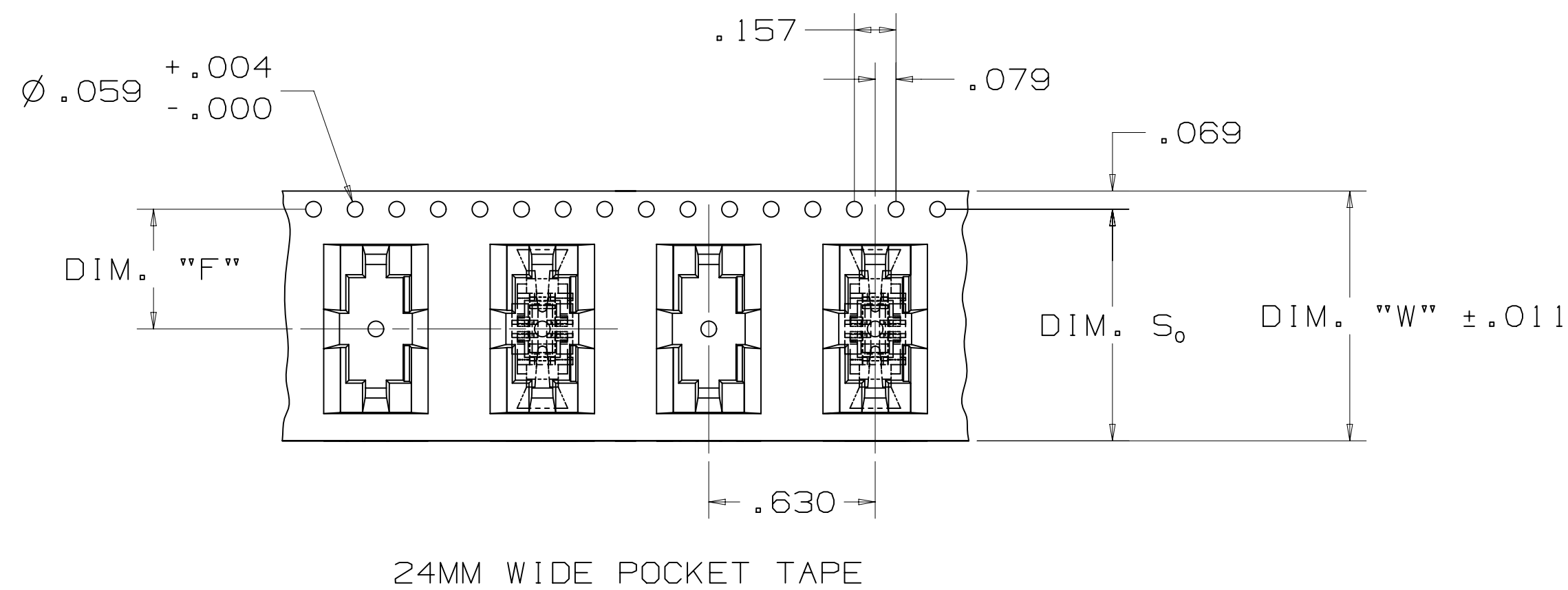


TABLE 2  
TAPE AND REEL PACKAGING FOR SURFACEMOUNT HEADERS

POS	LATCHES	DIM. "F"	DIM. K <sub>0</sub>	DIM. S <sub>0</sub>	DIM. "W"
4	NO	.453	.263	.876	.945 [ 24MM ]
4	YES	.453	.300	.876	.945 [ 24MM ]
6	NO	.453	.238	.876	.945 [ 24MM ]
6	YES	.559	.300	1.118	1.260 [ 32MM ]
8	NO	.453	.238	.876	.945 [ 24MM ]
8	YES	.559	.300	1.118	1.260 [ 32MM ]
10	NO	.453	.238	.876	.945 [ 24MM ]
10	YES	.559	.300	1.118	1.260 [ 32MM ]
12	NO	.453	.238	.876	.945 [ 24MM ]
12	YES	.559	.300	1.118	1.260 [ 32MM ]
14	NO	.453	.238	.876	.945 [ 24MM ]
14	YES	.795	.300	1.591	1.732 [ 44MM ]
16	NO	.453	.238	.876	.945 [ 24MM ]
16	YES	.795	.300	1.591	1.732 [ 44MM ]
20	NO	.559	.238	1.118	1.260 [ 32MM ]
20	YES	.795	.300	1.591	1.732 [ 44MM ]
30	NO	.795	.238	1.591	1.732 [ 44MM ]
30	YES	.795	.300	1.591	1.732 [ 44MM ]



DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
ARM				NOV 29, 2012 PRC		NOV 29, 2012
DIVISION	DIVISION CODE	DATE	DATE	DATE	DATE	DATE
Interconnect Solutions	ISD	NOV 29, 2012	NOV 29, 2012	NOV 29, 2012	NOV 29, 2012	NOV 29, 2012
DO NOT SCALE DRAWING	TOLERANCES EXCEPT AS NOTED					
THIRD ANGLE PROJECTION	INCHES	© 3M COPYR[IGHT] 2013 This document and the information it contains are 3M property and may not be reproduced or further distributed without 3M permission, or used or disclosed other than for 3M authorized purposes. All rights reserved.				
INTERPRET PER ASME Y14.5 - 1994	MILLIMETERS	BOARDMOUNT HEADER, .05 X .05 PITCH, L/E, 452 SERIES				
MAX SURFACE ROUGHNESS	MARKED ONLY	CAGE NUMBER	SIZE	DRAWING NO.	REV.	
		D	78-5100-2437-1	C		
		MODEL	LISTS	YES	NO	SHT 4 OF 4

78-5100-2437-1 C REVISION DRAWING NUMBER  
A  
C  
B  
A  
Image: C.3.10/29/2013 10:46 AM UTC-05:00