

3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH
LATCH AND EJECT, 452 SERIES

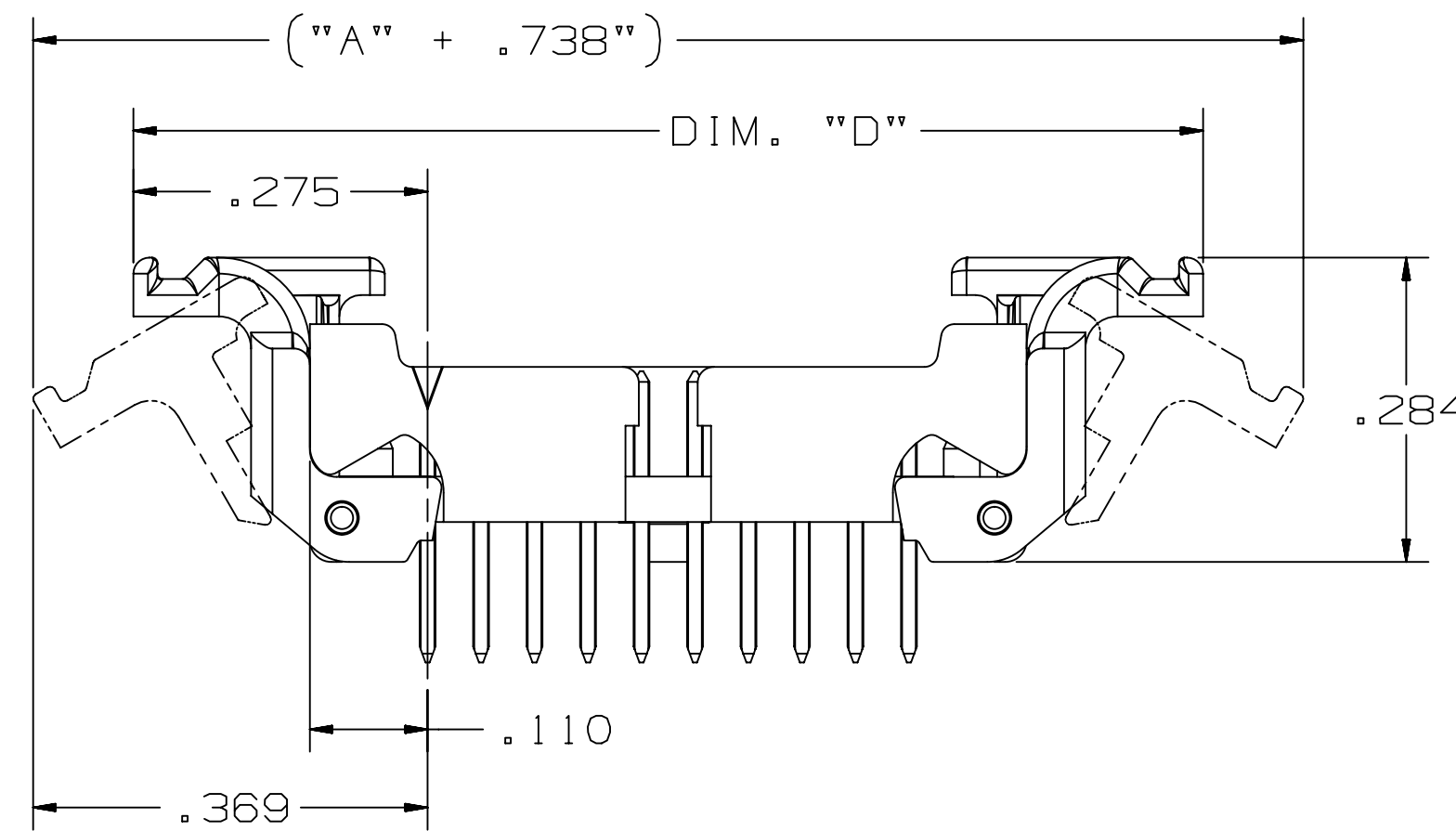
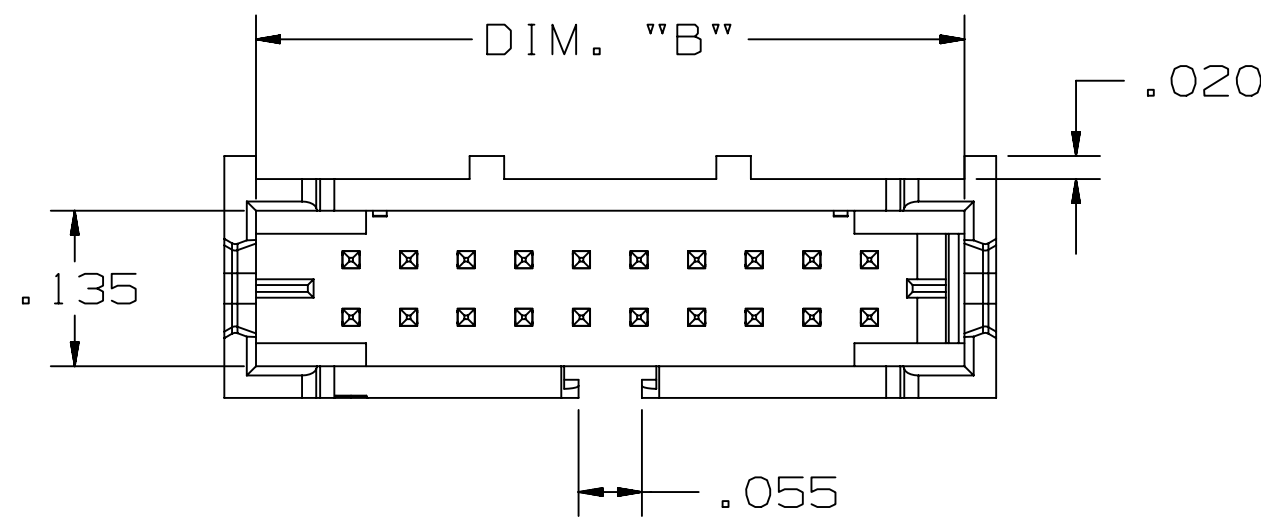
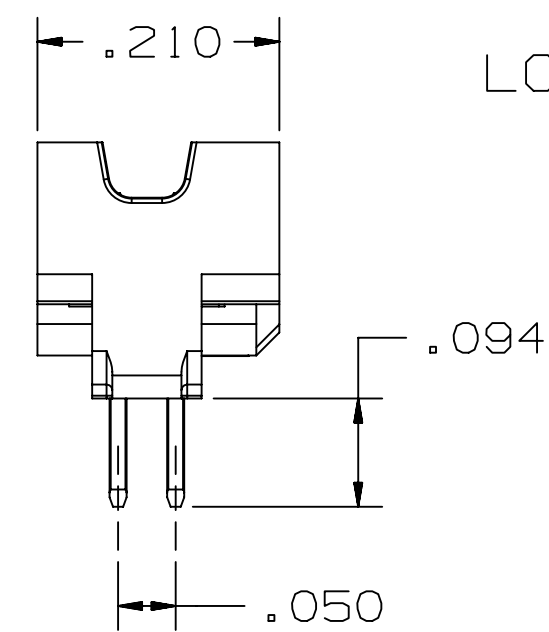
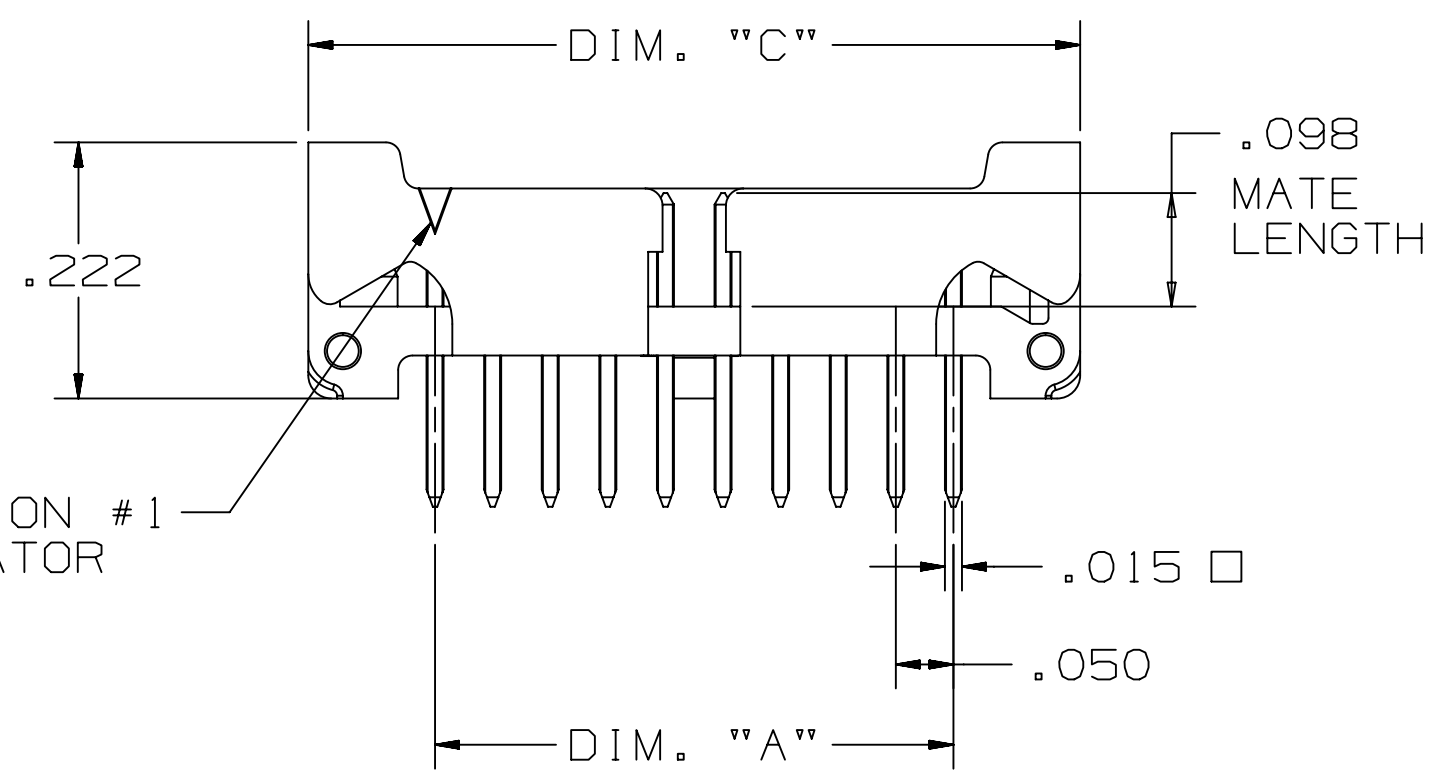


TABLE 1: VERTICAL THRU

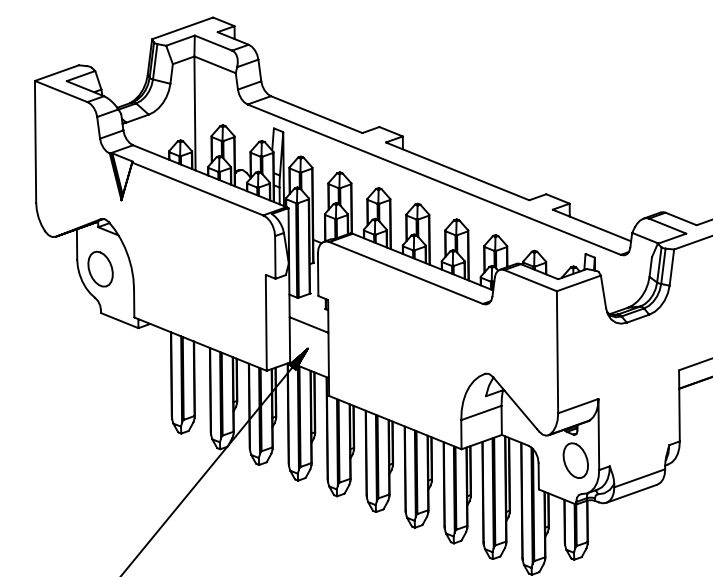
No. of Positions	Dim "A"	Dim "B"	Dim "C"	Dim "D"
4	.050	.215	.270	.600
6	.100	.265	.320	.650
8	.150	.315	.370	.700
10	.200	.365	.420	.750
12	.250	.415	.470	.800
14	.300	.465	.520	.850
16	.350	.515	.570	.900
20	.450	.615	.670	1.000
26	.600	.765	.820	1.150
30	.700	.865	.920	1.250
40	.950	1.115	1.170	1.500
50	1.200	1.365	1.420	1.750

- 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 1.27mm (0.050"), 451 SERIES RIBBON CABLE SOCKET, TECH SHEETS TS-2436 AND TS-2396
 - REGULATORY INFORMATION: VISIT 3M.com/regs
 - 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.

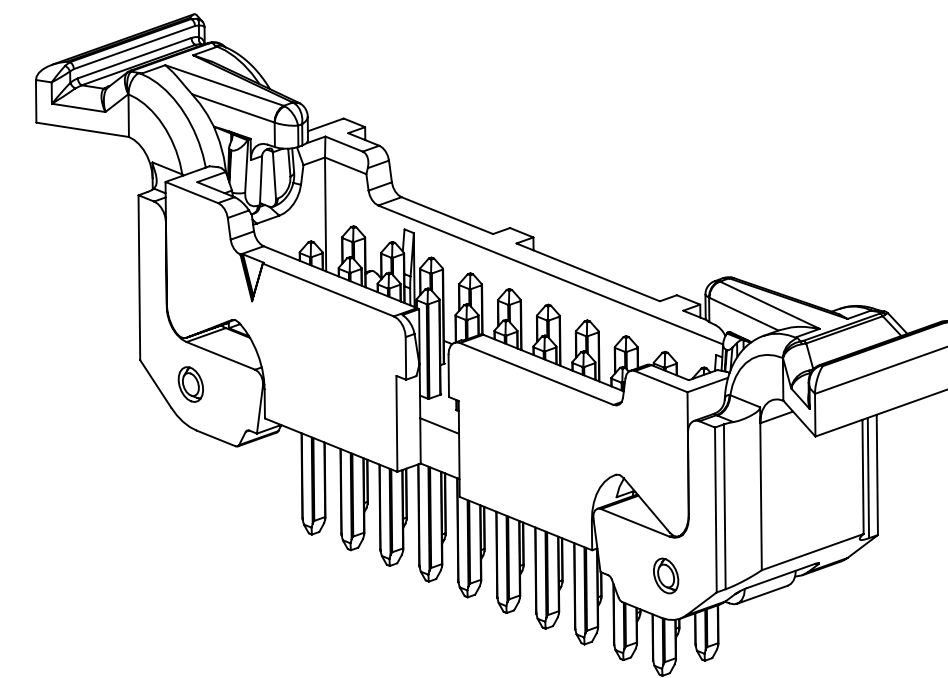
THRU BOARD, VERTICAL WITH LOW PROFILE LATCH/EJECT OPTION



THRU BOARD, VERTICAL



POLARIZATION AND FRICTION LATCHING POSITIONS 8 AND HIGHER ONLY

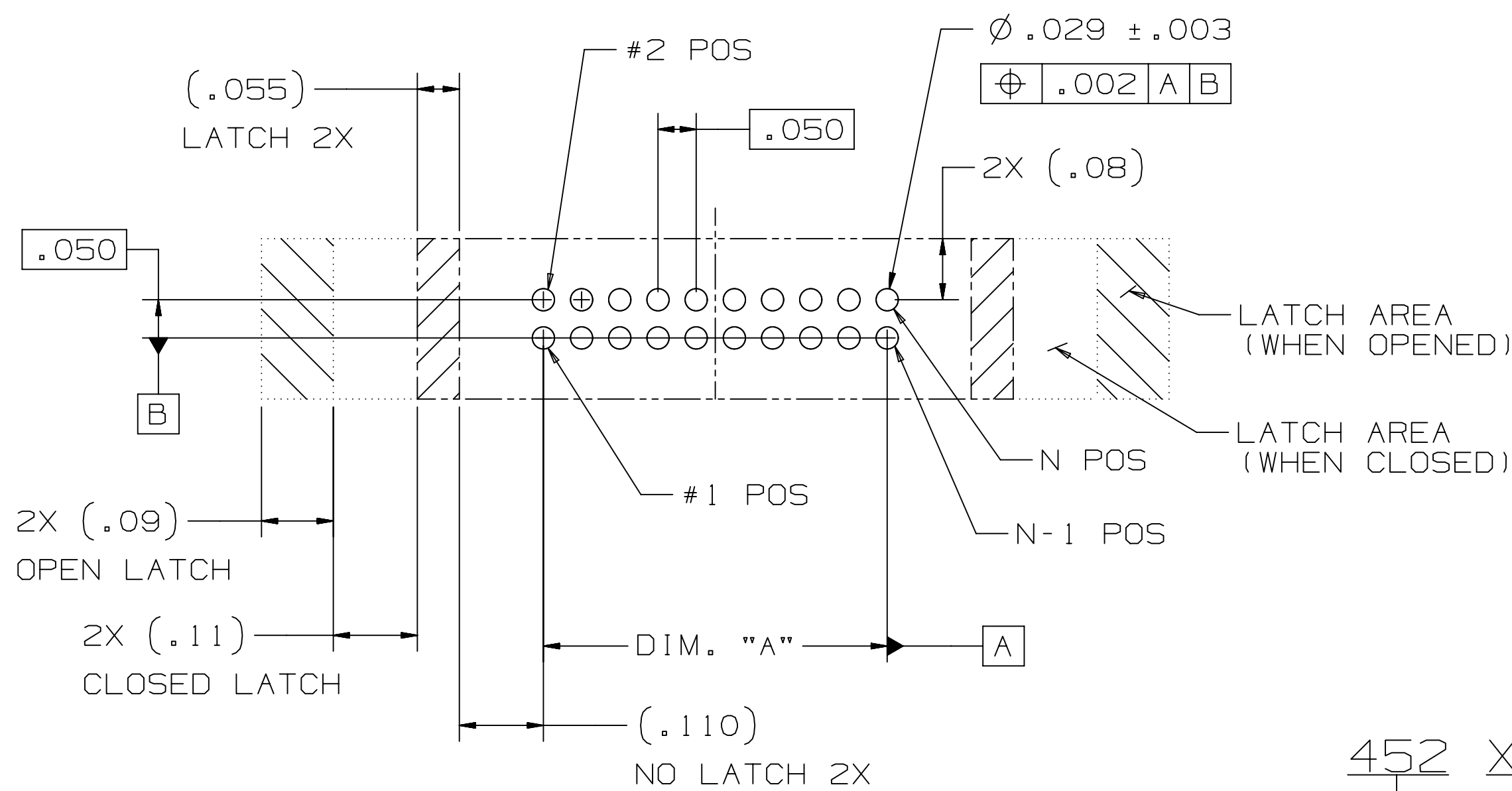


WITH LATCH/EJECT

PERFORMANCE:

CURRENT RATING: 1.0 A, ALL LINES ENERGIZED, 30°C TEMP RISE PER EIA 364-70
1.5 A, 6 LINES ENERGIZED, 30°C TEMP RISE PER EIA 364-70
2.5 A, 1 LINE ENERGIZED, 30°C TEMP RISE PER EIA 364-70

UL & CUL VOLTAGE RATING: 125V_{AC}
INSULATION RESISTANCE: > 1 × 10⁹ Ohms AT 500 VDC
WITHSTANDING VOLTAGE: 1250VACrms AT SEA LEVEL
OPERATING TEMPERATURE: -65°C to +125°C
UL & CUL OPERATING TEMPERATURE: +125°C
PROCESSING TEMPERATURE: 260°C
LEAD-FREE SOLDERABLE: YES
MOISTURE SENSITIVITY LEVEL: MSL1 PER J-STD-020



RECOMMENDED BOARD LAYOUT

452 XX - X X 0 2 XX
SERIES

No. OF POSITIONS SEE TABLE 1

PLATING
00 = AU FLASH
30 = 30μ" GOLD

CONTACT TAIL
2 = STANDARD (.094")

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

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

3M ELECTRONICS MATERIALS SOLUTIONS DIVISION
INTERCONNECT SOLUTIONS
<http://www.3M.com/interconnect>

3M IS A TRADEMARK OF 3M COMPANY.
FOR TECHNICAL, SALES OR ORDERING
INFORMATION CALL 800-225-5373

UL FILE NO: E68080

78-5100-2436-3
78-5100-2396-9

DESIGN REFERENCE NEXT ASSEMBLY

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
H	100200	OCT 19, 2021 ADD POS 26, 40, 50	JNC	SAN
G	92270	AUG 18, 2020 REVISE NOTES	JNC	SAN
F	56988	SEP 24, 2014 REVISE PERFORMANCE CHART	JNC	SN
E	54514	JUN 19, 2014 ADD UL LOGO, ADD 56MM T&R	SJS	SAN
D	51884	JAN 08, 2014 ADD DESIGN REF, UPDATE TITLE,	SJS	SAN
C	50290	OCT 08, 2013 REVISE NOTE 1, 9 & OPERATING TEMP.	JNC	SN
B	48635	JUL 12, 2013 MATCH TEXT FONTS & ADD NOTE 9	JNC	SN
A	46797	MAR 25, 2013 PRODUCTION RELEASE	JNC	SAN

DO NOT SCALE DRAWING

SCALE 6/1

TOLERANCES EXCEPT AS NOTED

INCHES
.0 ± .1
.00 ± .02
.000 ± .010
.0000 ± .0050

MILLIMETERS
0 ±
.0 ±
.00 ±
.000 ±

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 2018

MAX SURFACE ROUGHNESS
ALL SURFACES
MARKED ONLY

3M Center St. Paul, MN 55144

© 3M COPYRIGHT 2021
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.

TITLE
SHROUDED BMT HEADER,
.05 X .05 PITCH, L/E,
452 SERIES

CAGE NUMBER D78-5100-2437-1
SIZE 452
DRAWING NO. 78-5100-2437-1
REV. H

MODEL 452
DET 1515 YES NO SHT 1 OF 5

78-5100-2437-1
DRAWING NUMBER

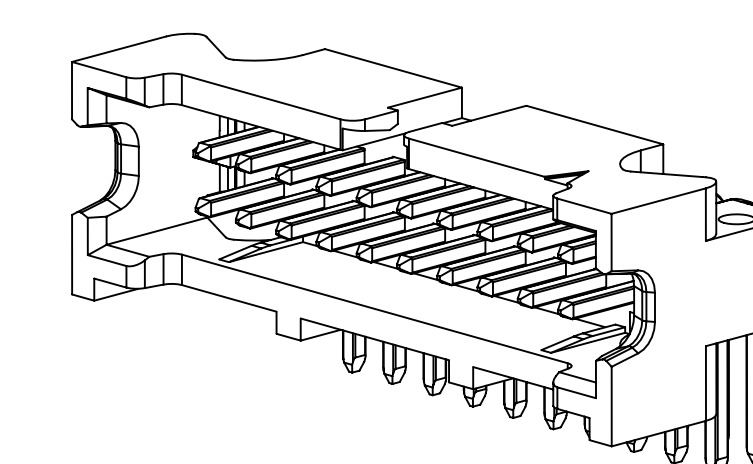
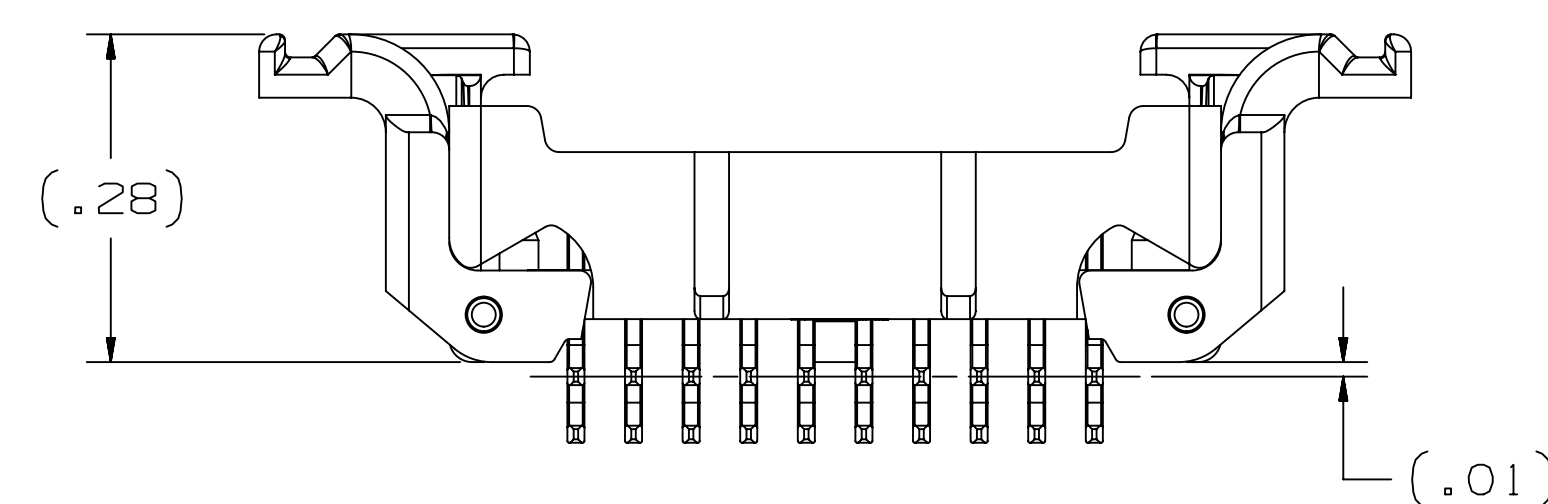
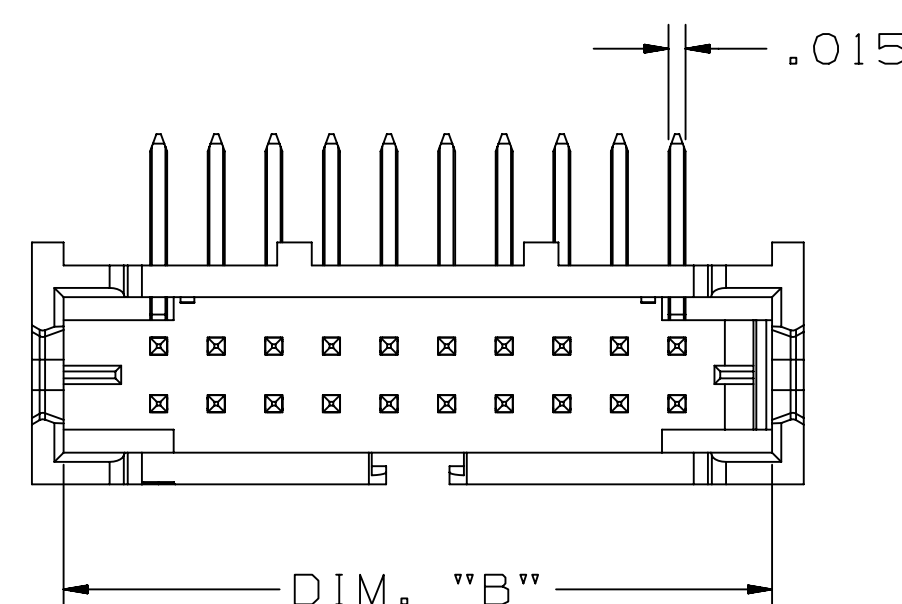
REVISION

REVISION

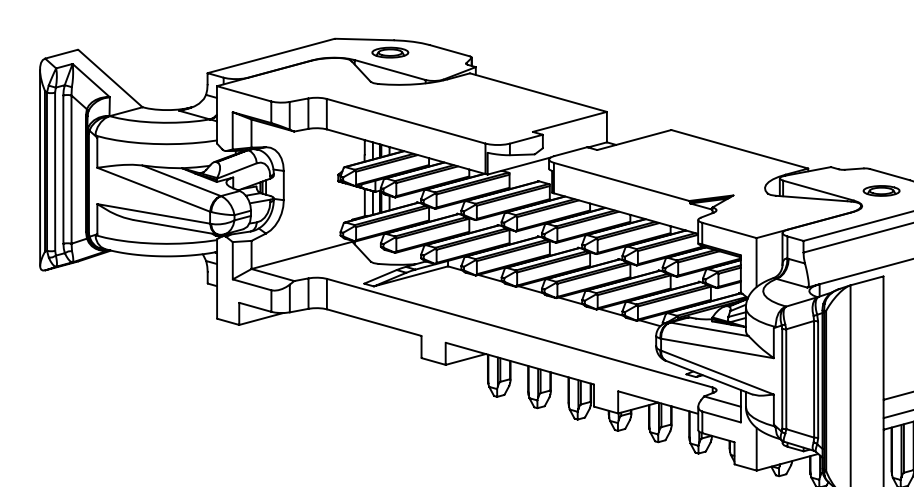
3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH
LATCH AND EJECT, 452 SERIES

TABLE 1: RIGHT ANGLE THRU

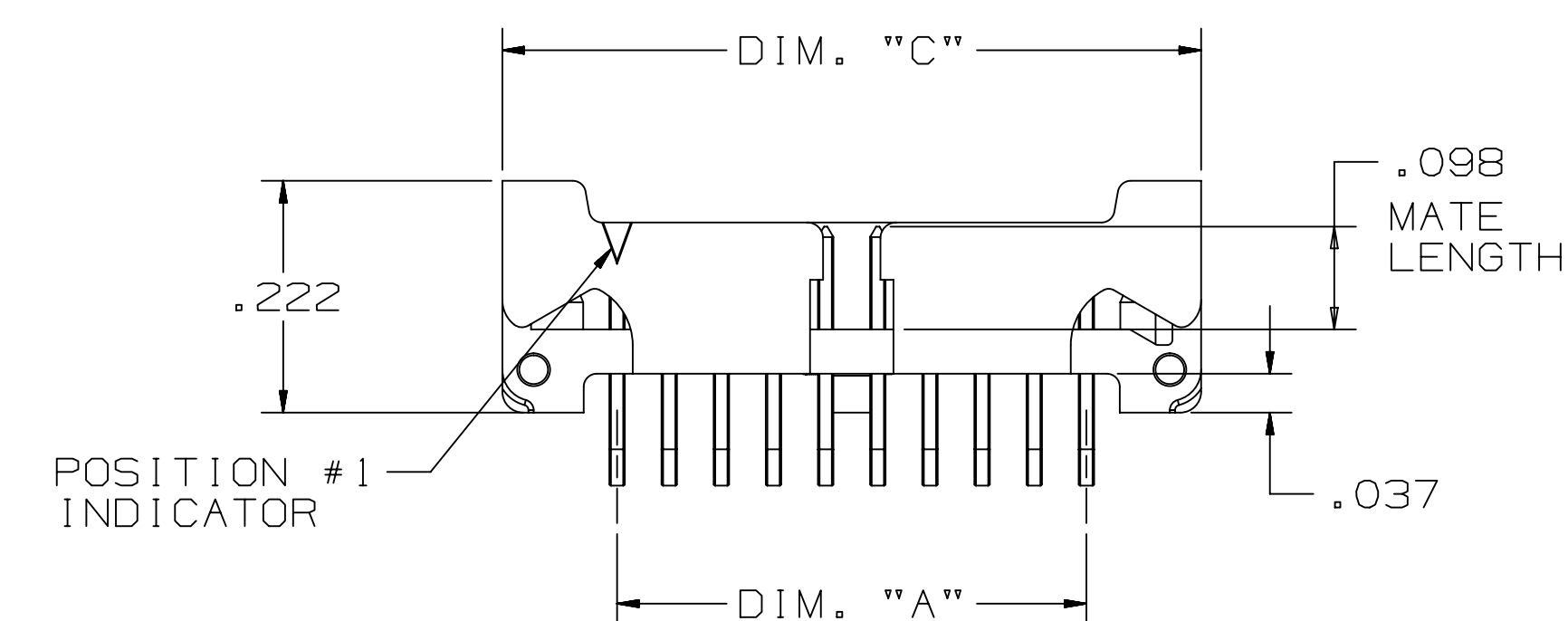
No. Positions	Dim "A"	Dim "B"	Dim "C"
4	.050	.215	.270
6	.100	.265	.320
8	.150	.315	.370
10	.200	.365	.420
12	.250	.415	.470
14	.300	.465	.520
16	.350	.515	.570
20	.450	.615	.670
26	.600	.765	.820
30	.700	.865	.920
40	.950	1.115	1.170
50	1.200	1.365	1.420



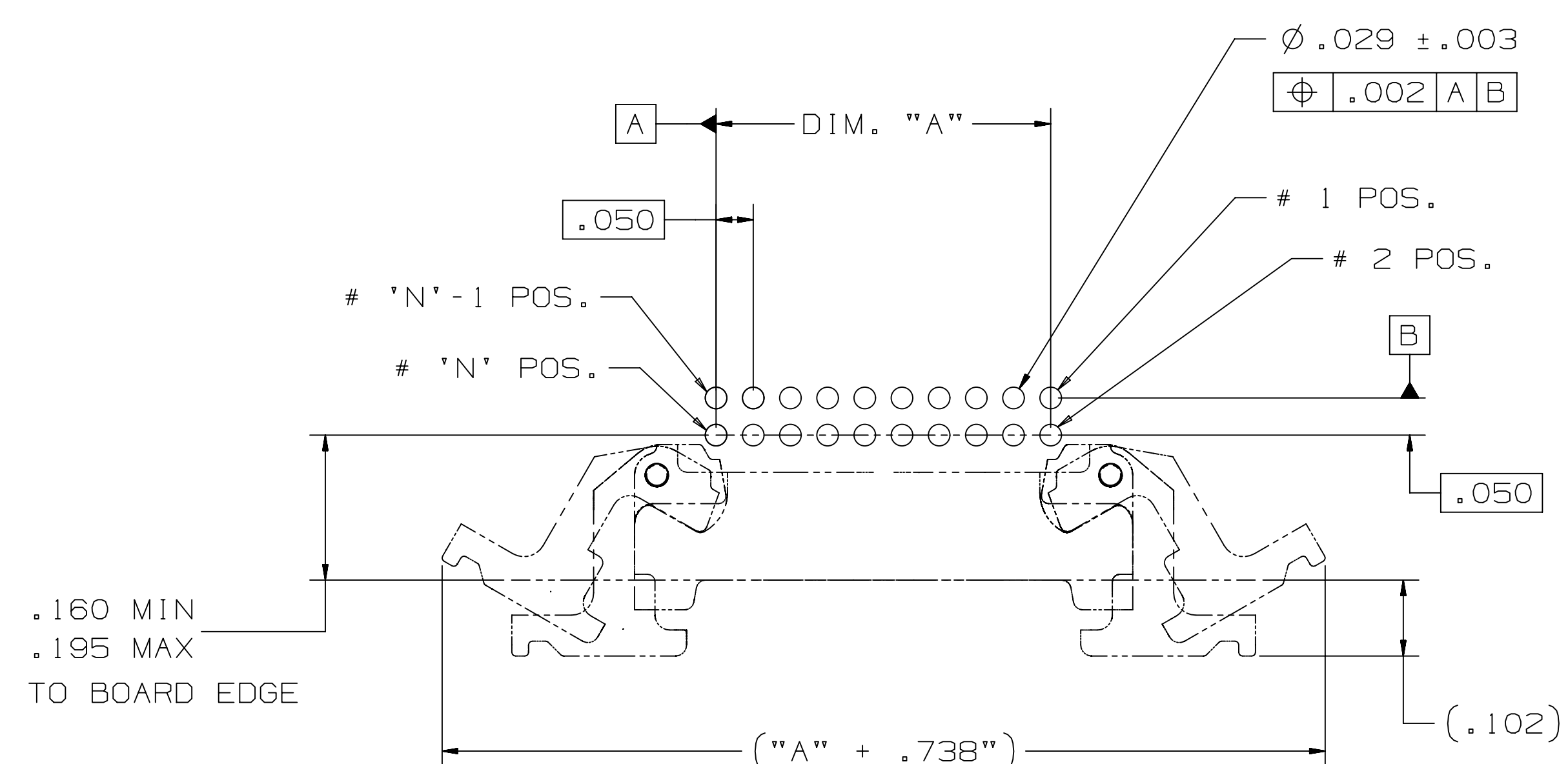
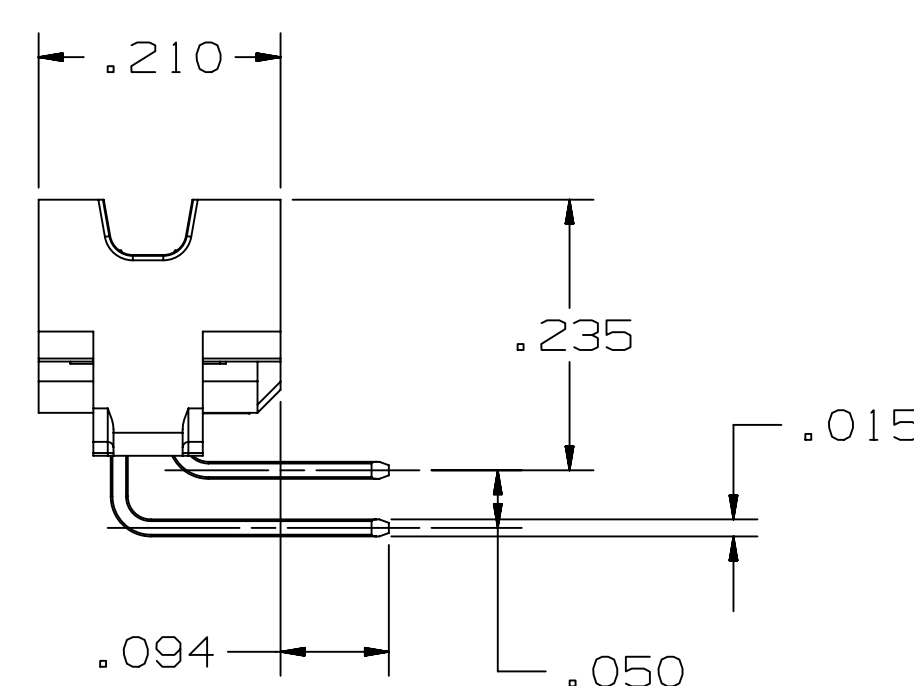
WITHOUT LATCH/EJECT



WITH LATCH/EJECT



THRU BOARD, RIGHT ANGLE



RECOMMENDED BOARD LAYOUT

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
H	100200	OCT 19, 2021 ADD POS 26, 40, 50	JNC	SAN
G	92270	AUG 18, 2020 REVISE NOTES	JNC	SAN
F	56988	SEP 24, 2014 REVISE PERFORMANCE CHART	JNC	SN
E	54514	JUN 19, 2014 ADD UL LOGO, ADD 56MM T&R	SJS	SAN
D	51884	JAN 08, 2014 ADD DESIGN REF, UPDATE TITLE	SJS	SAN
C	50290	OCT 08, 2013 REVISE NOTE 1, 9 & OPERATING TEMP.	JNC	SN
B	48635	JUL 12, 2013 MATCH TEXT FONTS & ADD NOTE 9	JNC	SN
A	46797	MAR 25, 2013 PRODUCTION RELEASE	JNC	SAN

78-5100-2436-3
78-5100-2396-9

DESIGN REFERENCE NEXT ASSEMBLY

DRFT	DATE	APPV	DATE
ARM	NOV 29, 2012	PRC	NOV 29, 2012
CHKD	DATE	APPV	DATE
SAN	NOV 29, 2012	SAN	NOV 29, 2012

DIVISION: EMSD

DO NOT SCALE DRAWING

SCALE: 6/1

TOLERANCES EXCEPT AS NOTED

INCHES	MILLIMETERS
.0 ± .1	0 ±
.00 ± .02	.00 ±
.000 ± .010	.000 ±
.0000 ± .0050	.0000 ±

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 2018

MAX SURFACE ROUGHNESS: 0.000 ±

MARKED ONLY

3M Center St. Paul, MN 55144

© 3M COPYRIGHT 2021. 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.

TITLE: SHROUDED BMT HEADER, .05 X .05 PITCH, L/E, 452 SERIES

CAGE NUMBER: D78-5100-2437-1

REV. H

MODEL: 452

DET: 1515

YES NO SHT 2 OF 5

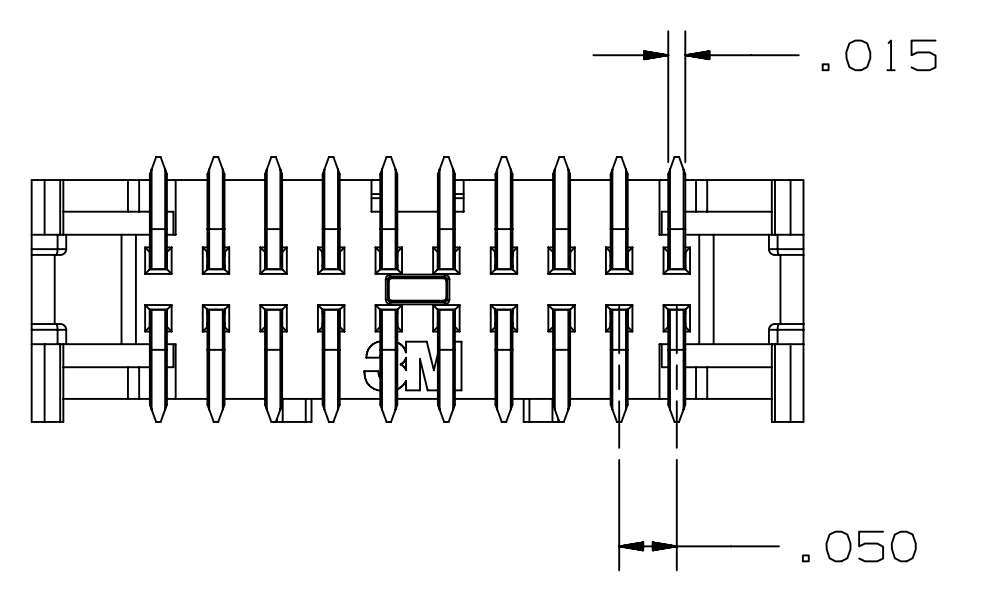
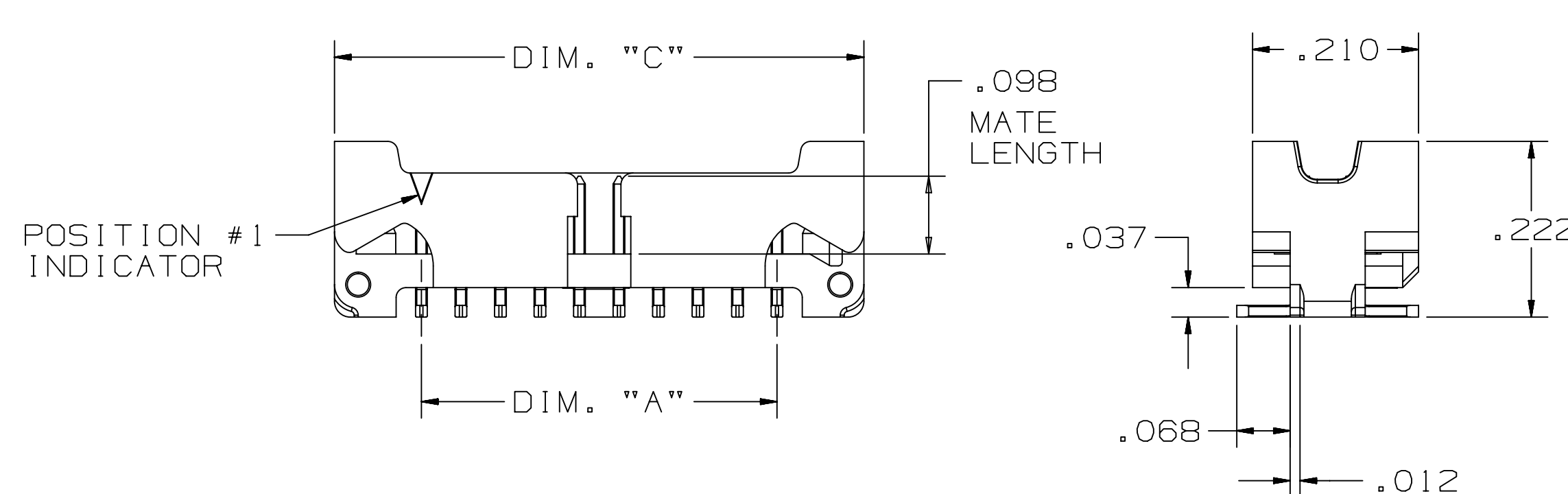
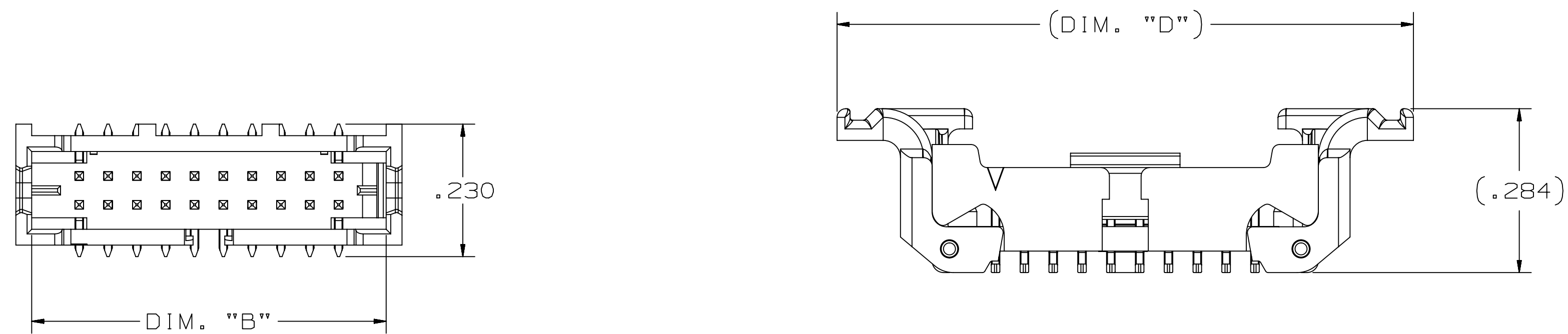
78-5100-2437-1
DRAWING NUMBER

A

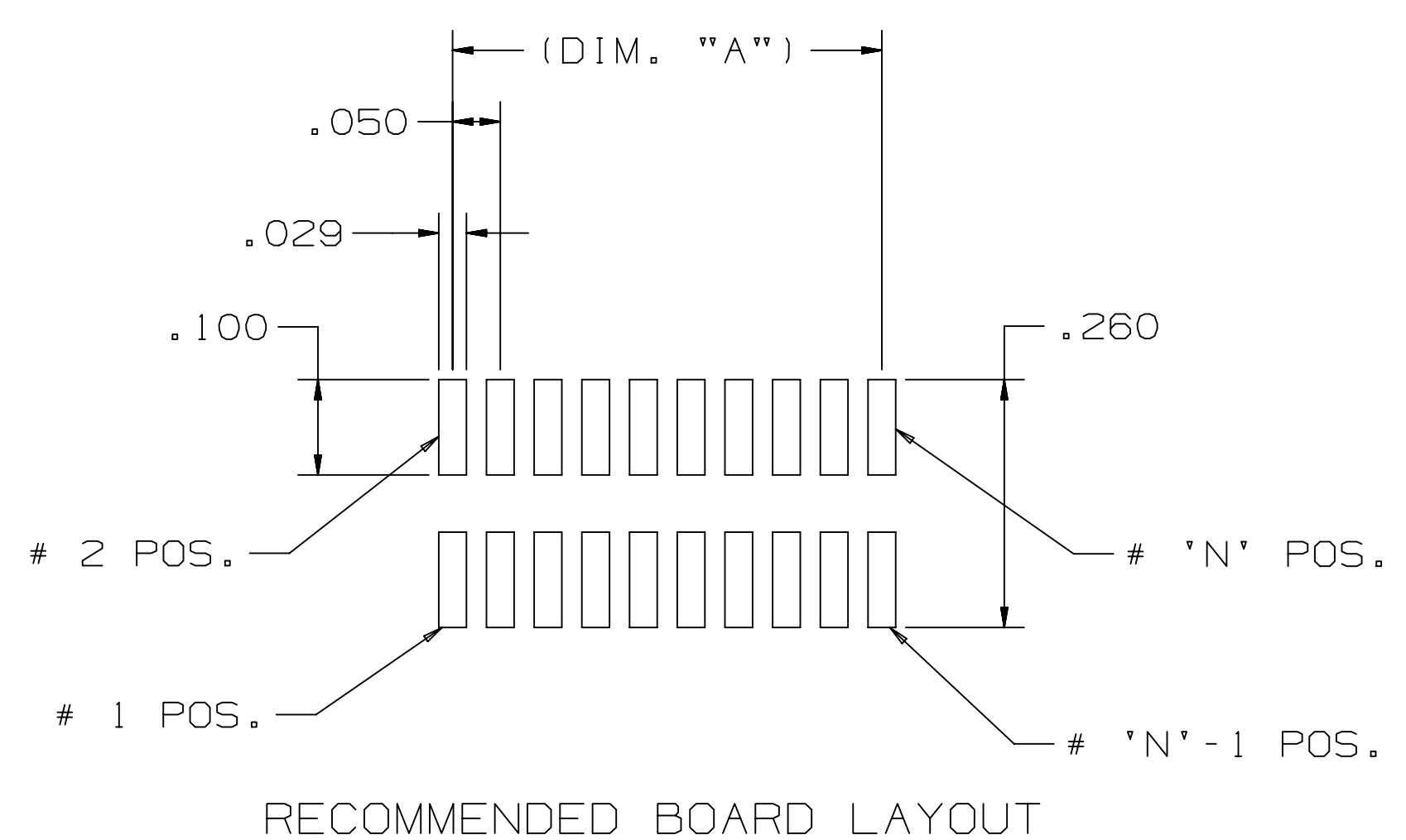
3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH
LATCH AND EJECT, 452 SERIES

TABLE 1: VERTICAL SMT

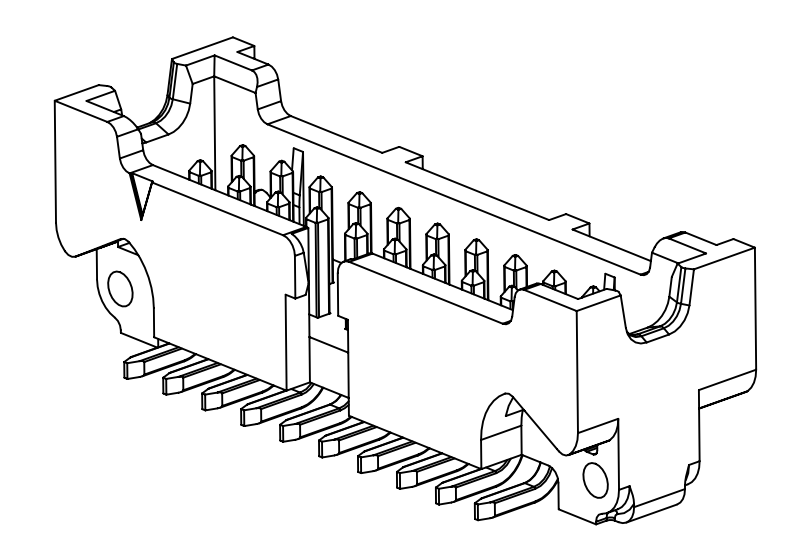
No. Positions	Dim "A"	Dim "B"	Dim "C"	Dim "D"
4	.050	.215	.270	.600
6	.100	.265	.320	.650
8	.150	.315	.370	.700
10	.200	.365	.420	.750
12	.250	.415	.470	.800
14	.300	.465	.520	.850
16	.350	.515	.570	.900
20	.450	.615	.670	1.000
26	.600	.765	.820	1.150
30	.700	.865	.920	1.250
40	.950	1.115	1.170	1.500
50	1.200	1.365	1.420	1.750



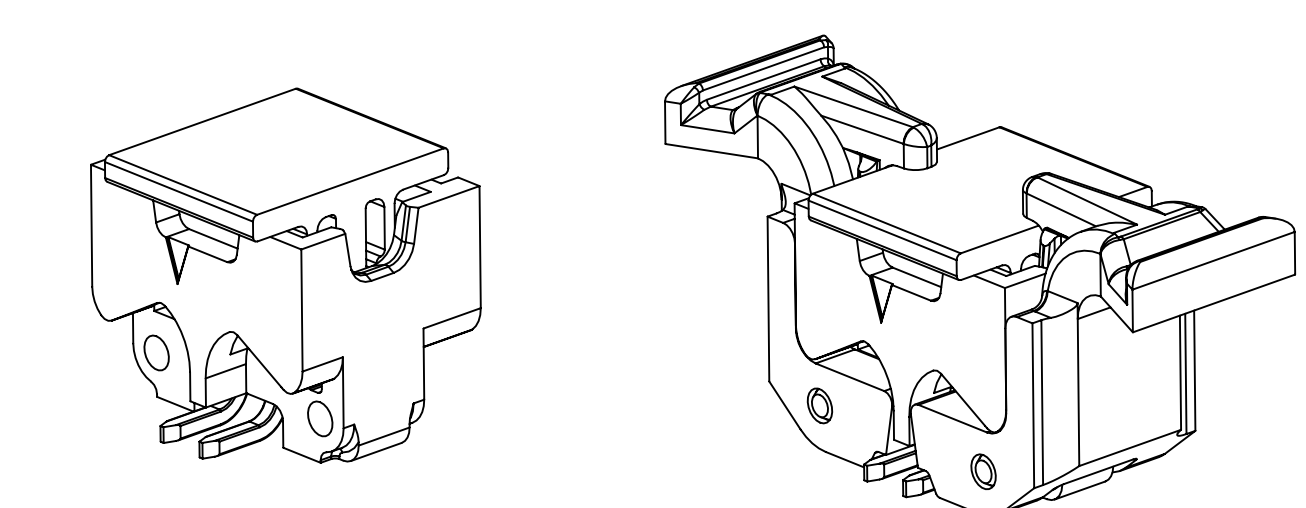
SURFACE MOUNT, VERTICAL



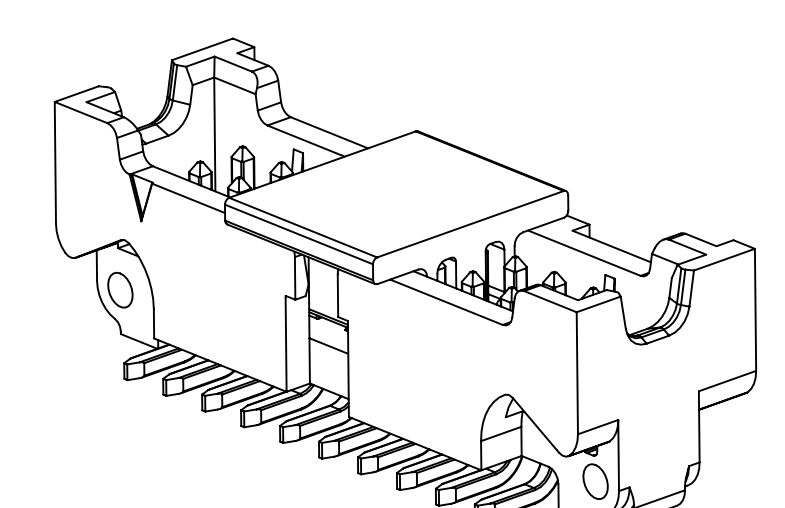
RECOMMENDED BOARD LAYOUT



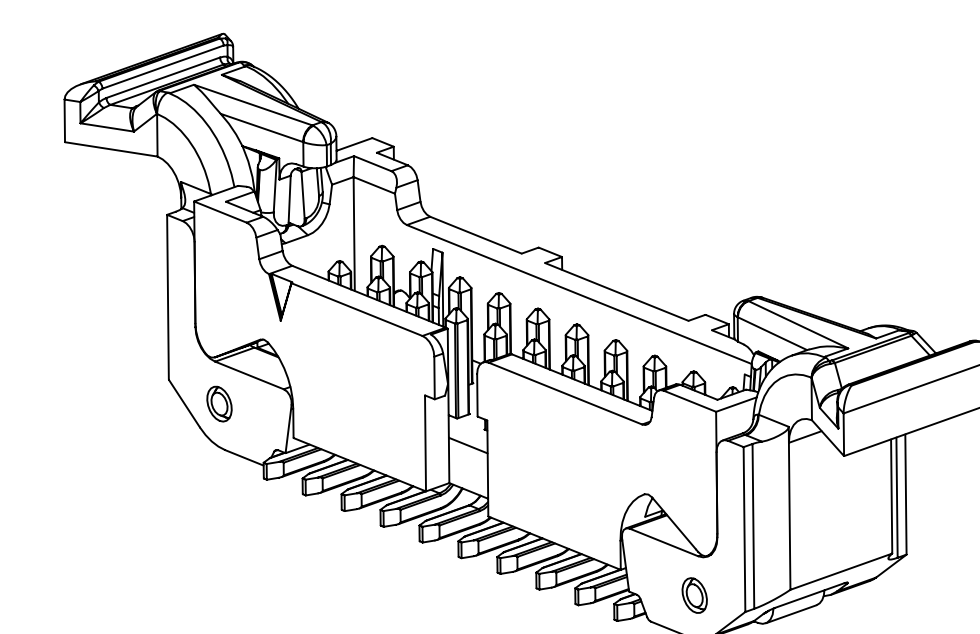
SHROUDED SMT HEADER



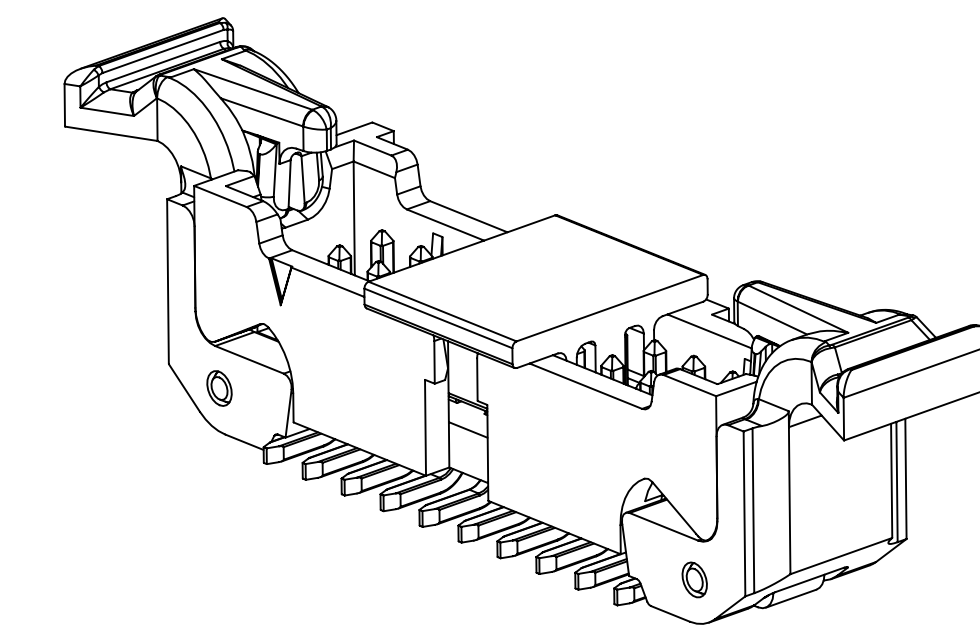
VACUUM CAP SEATED ON TOP EDGES OF END WALLS ON POSITIONS 4 AND 6



WITH VACUUM CAP



WITH LATCH/EJECT



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

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
H	100200	OCT 19, 2021 ADD POS 26, 40, 50	JNC	SAN
G	92270	AUG 18, 2020 REVISE NOTES	JNC	SAN
F	56988	SEP 24, 2014 REVISE PERFORMANCE CHART	JNC	SN
E	54514	JUN 19, 2014 ADD UL LOGO, ADD 56MM T&R	SJS	SAN
D	51884	JAN 08, 2014 ADD DESIGN REF, UPDATE TITLE	SJS	SAN
C	50290	OCT 08, 2013 REVISE NOTE 1, 9 & OPERATING TEMP.	JNC	SN
B	48635	JUL 12, 2013 MATCH TEXT FONTS & ADD NOTE 9	JNC	SN
A	46797	MAR 25, 2013 PRODUCTION RELEASE	JNC	SAN

78-5100-2436-3
78-5100-2396-9
DESIGN REFERENCE NEXT ASSEMBLY

DRFT	DATE	DRFT	DATE
ARM	NOV 29, 2012	PRC	NOV 29, 2012
CHKD	DATE	APPR	DATE
SAN	NOV 29, 2012	SAN	NOV 29, 2012

DIVISION: EMSD

DO NOT SCALE DRAWING

SCALE: 6/1

TOLERANCES EXCEPT AS NOTED

INCHES: .0 ± .1, .00 ± .02, .000 ± .010, .0000 ± .0050

MILLIMETERS: 0 ± .1, .00 ± .005, .000 ± .0005

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 2018

MAX SURFACE ROUGHNESS: ALL SURFACES

MARKED ONLY

3M Center St. Paul, MN 55144

© 3M COPYRIGHT 2021. 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.

TITLE: SHROUDED BMT HEADER, .05 X .05 PITCH, L/E, 452 SERIES

CAGE NUMBER: D78-5100-2437-1

REV. H

MODEL: 452

DET: [] YES [X] NO

SHT 3 OF 5

78-5100-2437-1
DRAWING NUMBER

A

3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH
LATCH AND EJECT, 452 SERIES

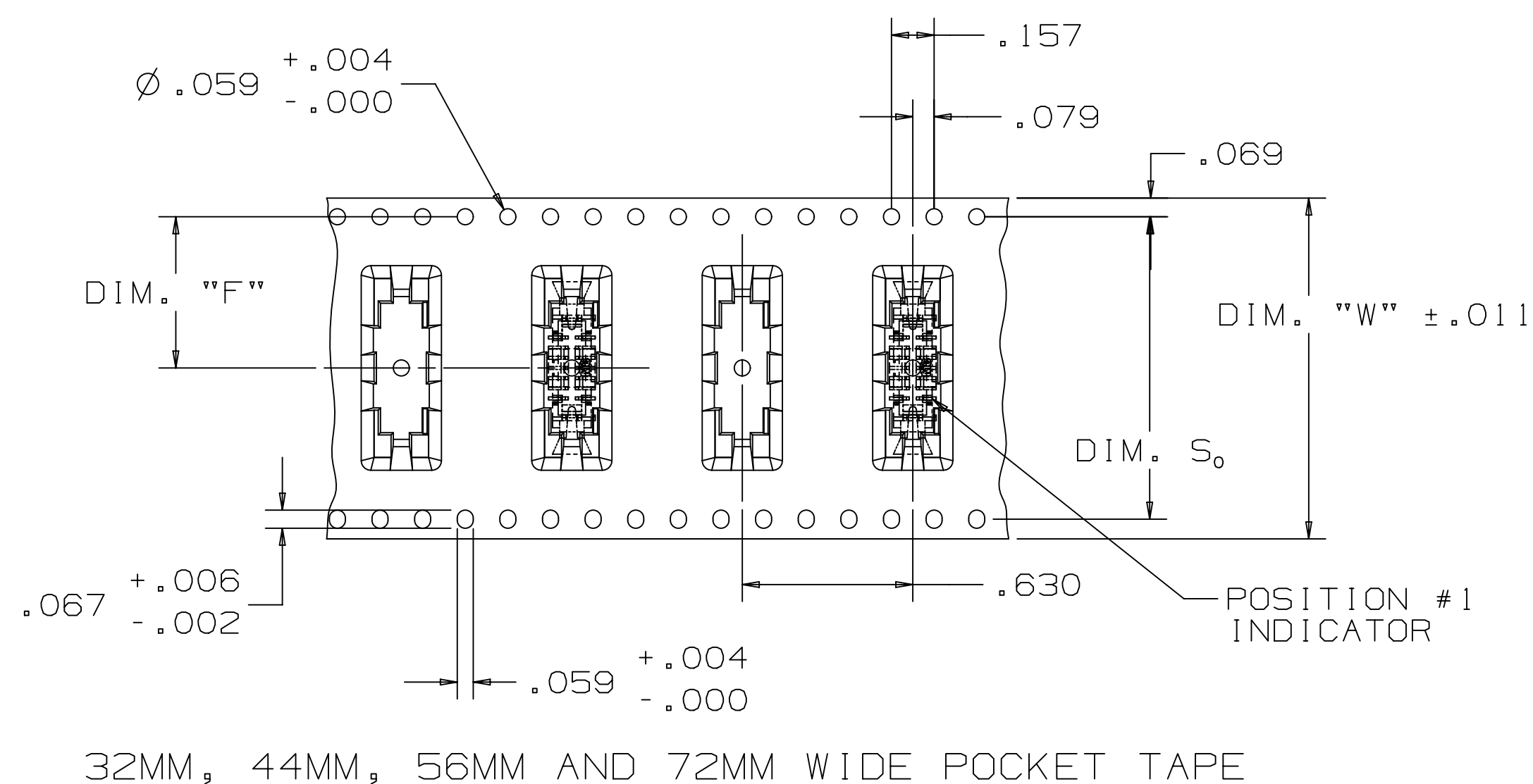
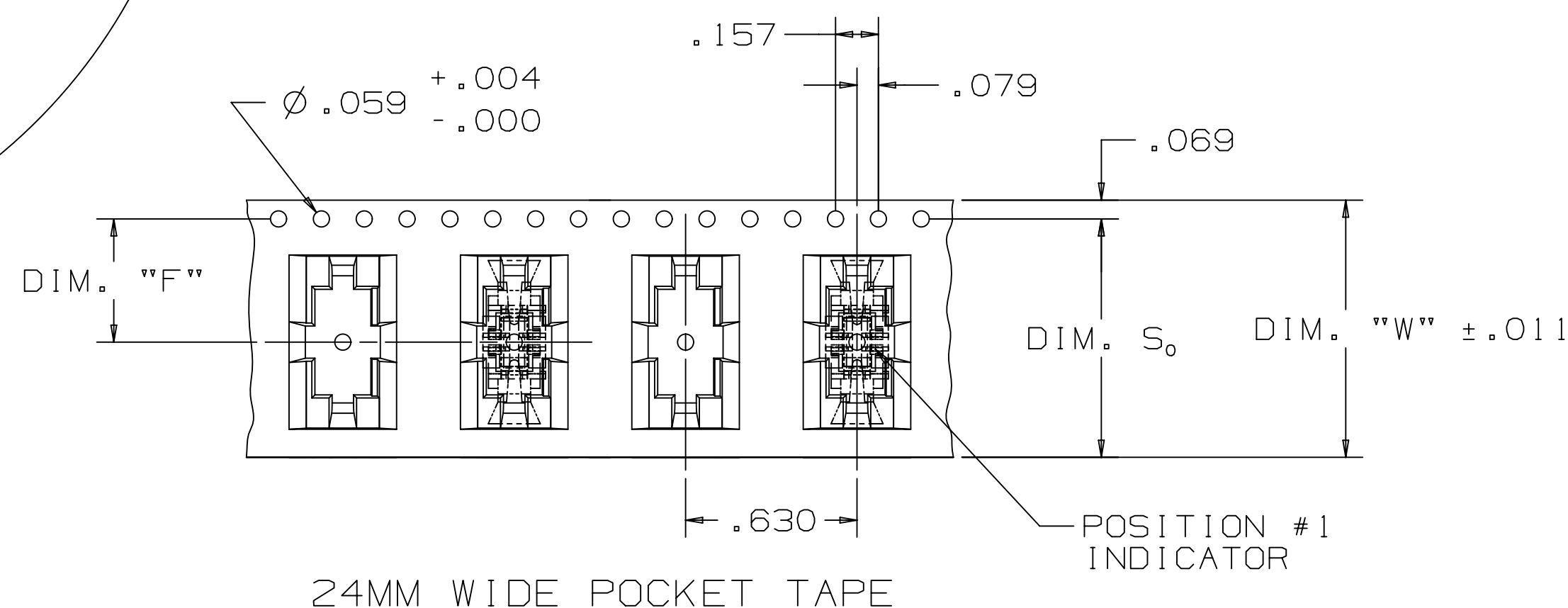
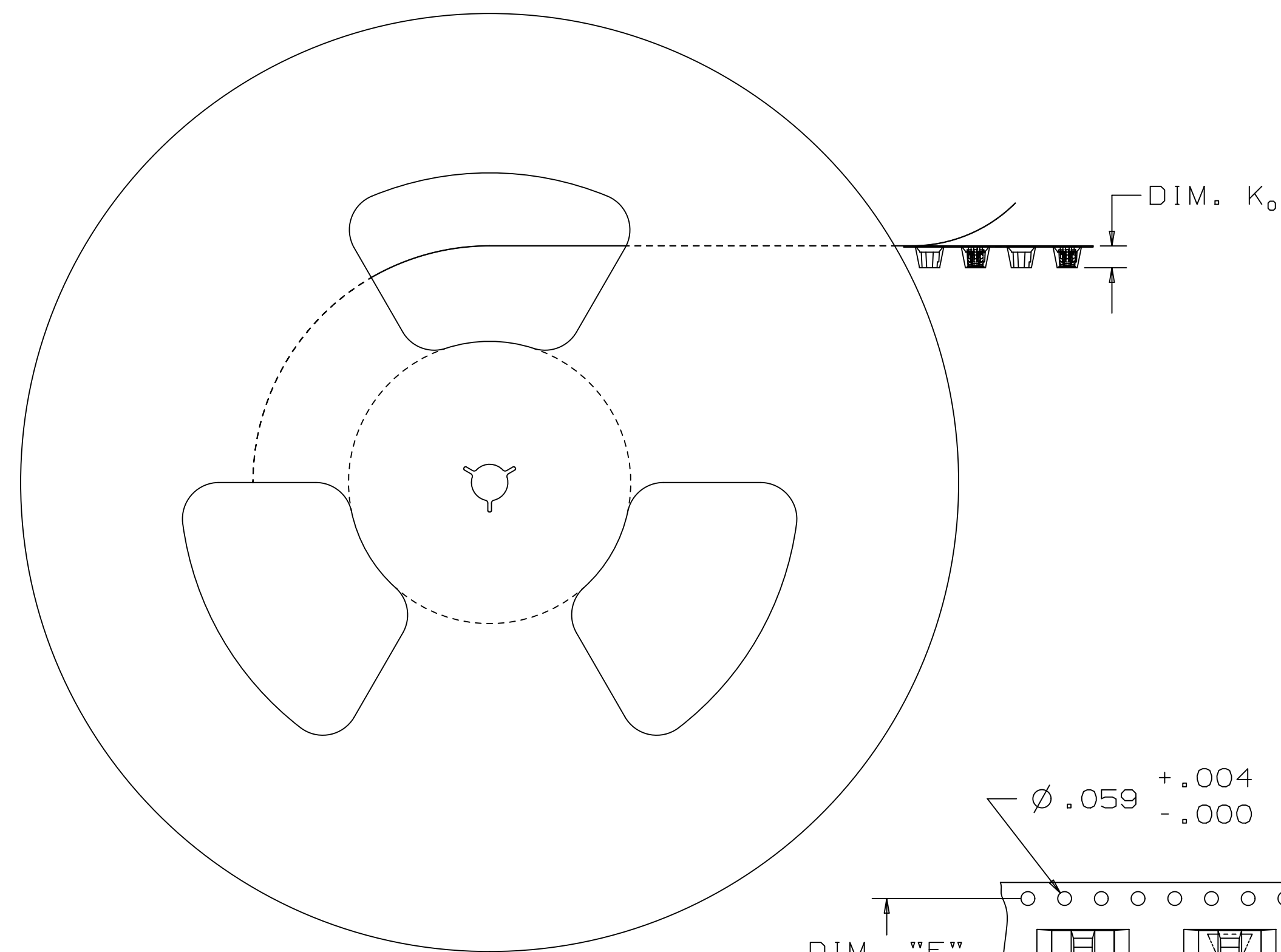
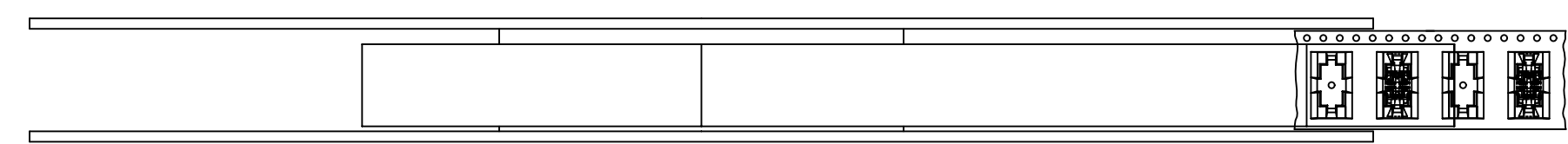


TABLE 2
TAPE AND REEL PACKAGING FOR SURFACEMOUNT HEADERS

POS	LATCHES	DIM. "F"	DIM. K ₀	DIM. S ₀	DIM. "W"
4	NO	.453	.263	.876	.945 [24MM]
4	YES	.453	.300	.876	1.260 [32MM]
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	1.732 [44MM]
10	NO	.453	.238	.876	.945 [24MM]
10	YES	.559	.300	1.118	1.732 [44MM]
12	NO	.453	.238	.876	.945 [24MM]
12	YES	.559	.300	1.118	1.732 [44MM]
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]
26	NO	.795	.254	1.594	1.732 [44MM]
26	YES	1.031	.288	2.067	2.205 [56MM]
30	NO	.795	.238	1.591	1.732 [44MM]
30	YES	.795	.300	1.591	2.205 [56MM]
40	NO	1.031	.254	2.067	2.205 [56MM]
40	YES	1.031	.288	2.067	2.205 [56MM]
50	NO	1.031	.254	2.067	2.205 [56MM]
50	YES	1.346	.288	2.693	2.835 [72MM]

NOTE:
LATCH AND EJECT HEADERS ARE PACKAGED WITH THE
LATCHES IN AN OPEN POSITION.

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
H	100200	OCT 19, 2021 ADD POS 26, 40, 50	JNC	SAN
G	92270	AUG 18, 2020 REVISE NOTES	JNC	SAN
F	56988	SEP 24, 2014 REVISE PERFORMANCE CHART	JNC	SN
E	54514	JUN 19, 2014 ADD UL LOGO, ADD 56MM T&R	SJS	SAN
D	51884	JAN 08, 2014 ADD DESIGN REF, UPDATE TITLE	SJS	SAN
C	50290	OCT 08, 2013 REVISE NOTE 1, 9 & OPERATING TEMP.	JNC	SN
B	48635	JUL 12, 2013 MATCH TEXT FONTS & ADD NOTE 9	JNC	SN
A	46797	MAR 25, 2013 PRODUCTION RELEASE	JNC	SAN

78-5100-2436-3
78-5100-2396-9

DESIGN REFERENCE NEXT ASSEMBLY

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

MAX SURFACE ROUGHNESS

INTERPRET PER ASME Y14.5 - 2018

INCHES: .0 ±.1, .00 ±.02, .000 ±.010, .0000 ±.0050

MILLIMETERS: 0 ±, .0 ±, .00 ±, .000 ±

ANGLES: ±

TOLERANCES EXCEPT AS NOTED

EMSD

3M Center St. Paul, MN 55144

© 3M COPYRIGHT 2021
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.

TITLE: SHROUDED BMT HEADER, .05 X .05 PITCH, L/E, 452 SERIES

CAGE NUMBER: D78-5100-2437-1

SIZE: H

DRAWING NO. 78-5100-2437-1

REV. H

MODEL: 452

DET: 452

IS1s YES NO SHT 4 OF 5

78-5100-2437-1 H REVISION DRAWING NUMBER

Regulatory: For regulatory information about this product, visit 3M.com/regs or contact your 3M representative.

Technical Information: The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use: Many factors beyond 3M's control and uniquely within user's control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

Warranty, Limited Remedy, and Disclaimer: Unless an additional warranty is specifically stated on the applicable 3M product packaging or product literature, 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OR TRADE. If the 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability: Except where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

3M Company
 Electronics Materials Solutions Division
 13011 McCallen Pass, Bldg. C
 Austin, TX 78753-5380
 1-800-225-5373
 www.3M.com/interconnect

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
H	100200	OCT 19,2021 ADD POS 26, 40, 50	JNC	SAN
G	92270	AUG 18,2020 REVISE NOTES	JNC	SAN
F	56988	SEP 24,2014 REVISE PERFORMANCE CHART	JNC	SN
E	54514	JUN 19,2014 ADD UL LOGO, ADD 56MM T&R	SJS	SAN
D	51884	JAN 08,2014 ADD DESIGN REF, UPDATE TITLE,	SJS	SAN
C	50290	OCT 08,2013 REVISE NOTE 1, 9 & OPERATING TEMP.	JNC	SN
B	48635	JUL 12,2013 MATCH TEXT FONTS & ADD NOTE 9	JNC	SN
A	46797	MAR 25,2013 PRODUCTION RELEASE	JNC	SAN

78-5100-2436-3
 78-5100-2396-9

DESIGN REFERENCE NEXT ASSEMBLY

DRFT	DATE	DRFT	DATE
ARM	NOV 29,2012	PRC	NOV 29,2012
CHKD	DATE	APPR	DATE
SAN	NOV 29,2012	SAN	NOV 29,2012

DIVISION CODE
 EMSD

DO NOT SCALE DRAWING

SCALE 1

TOLERANCES EXCEPT AS NOTED

INCHES
 .0 ± .1
 .00 ± .02
 .000 ± .010
 .0000 ± .0050

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 2018

MAX SURFACE ROUGHNESS

MARKED ONLY

3M Center St. Paul, MN 55144

© 3M COPYRIGHT 2021
 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.

TITLE
 SHROUDED BMT HEADER,
 .05 X .05 PITCH, L/E,
 452 SERIES

CAGE NUMBER D78-5100-2437-1

SIZE

DRAWING NO.

REV. H

MODEL 452

DET 1/5

YES NO

SHT 5 OF 5

78-5100-2437-1
DRAWING NUMBER

A

B

C

D

8

7

6

5

4

3

2

1

8

7

6

5

4

3

2

1