

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

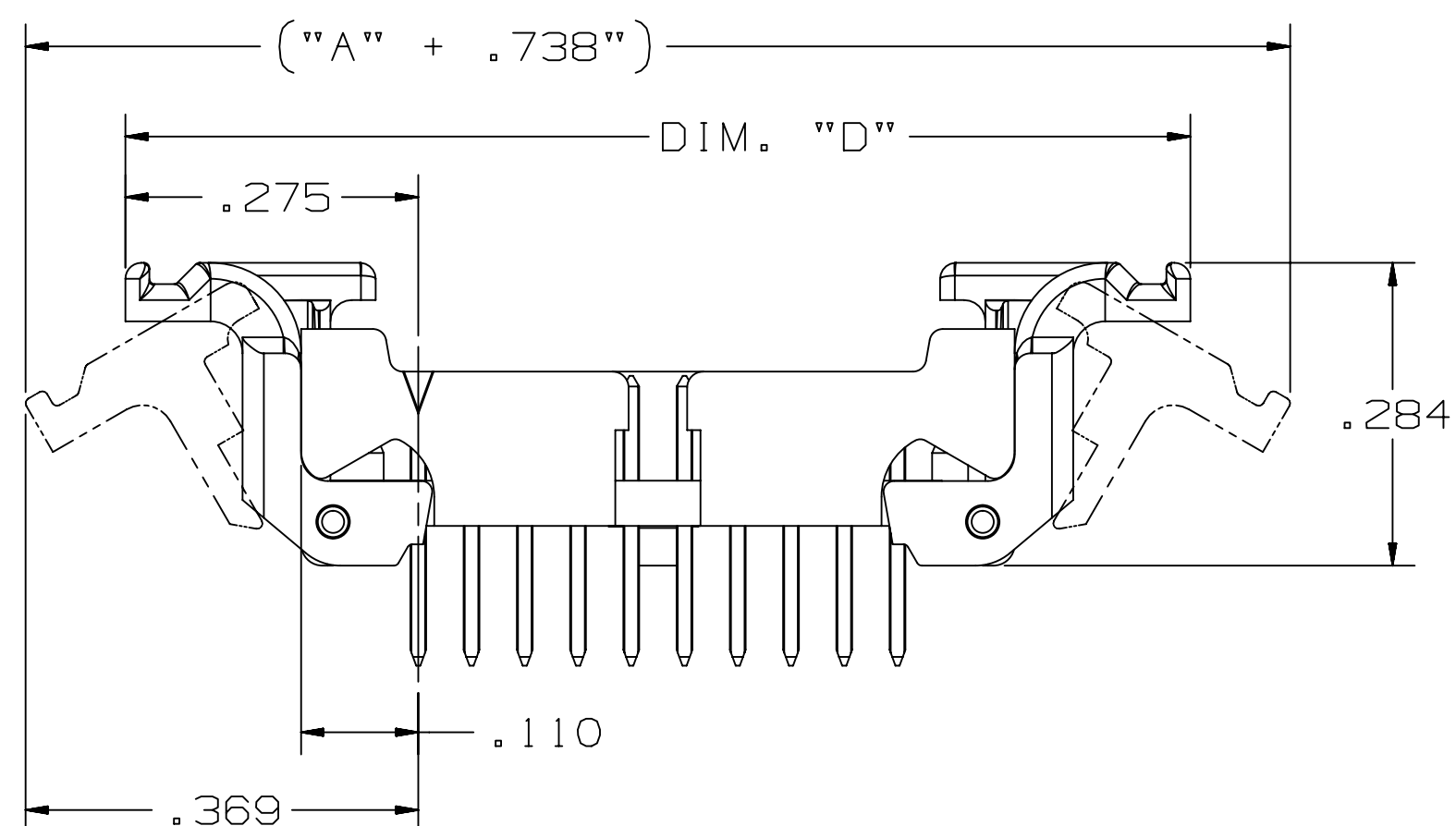
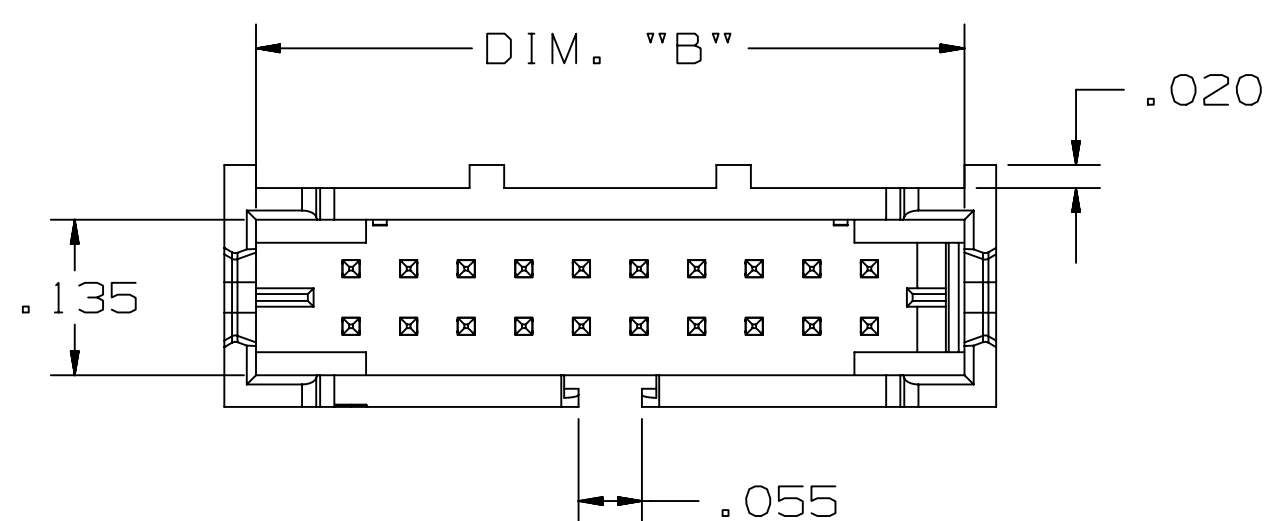
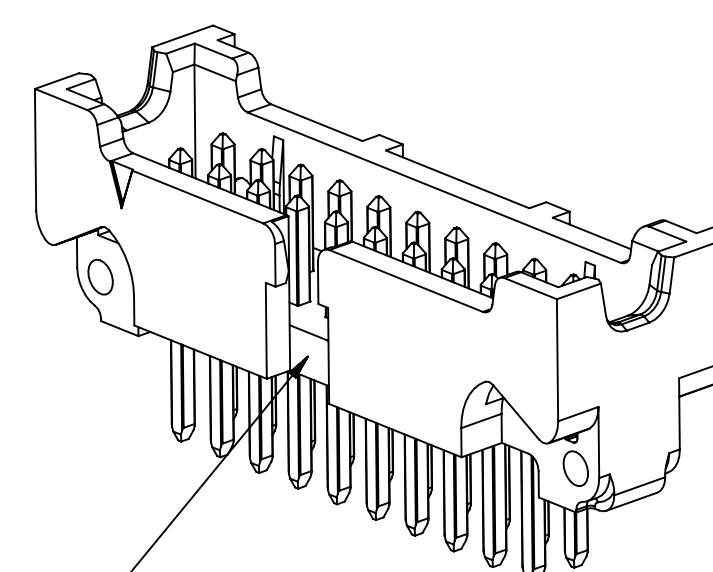
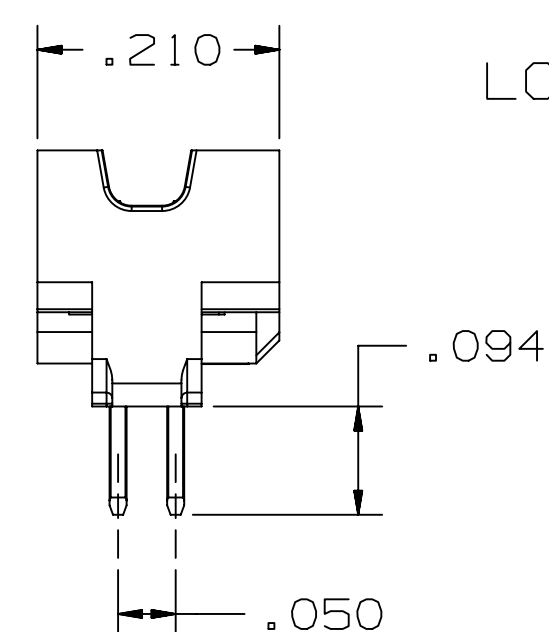
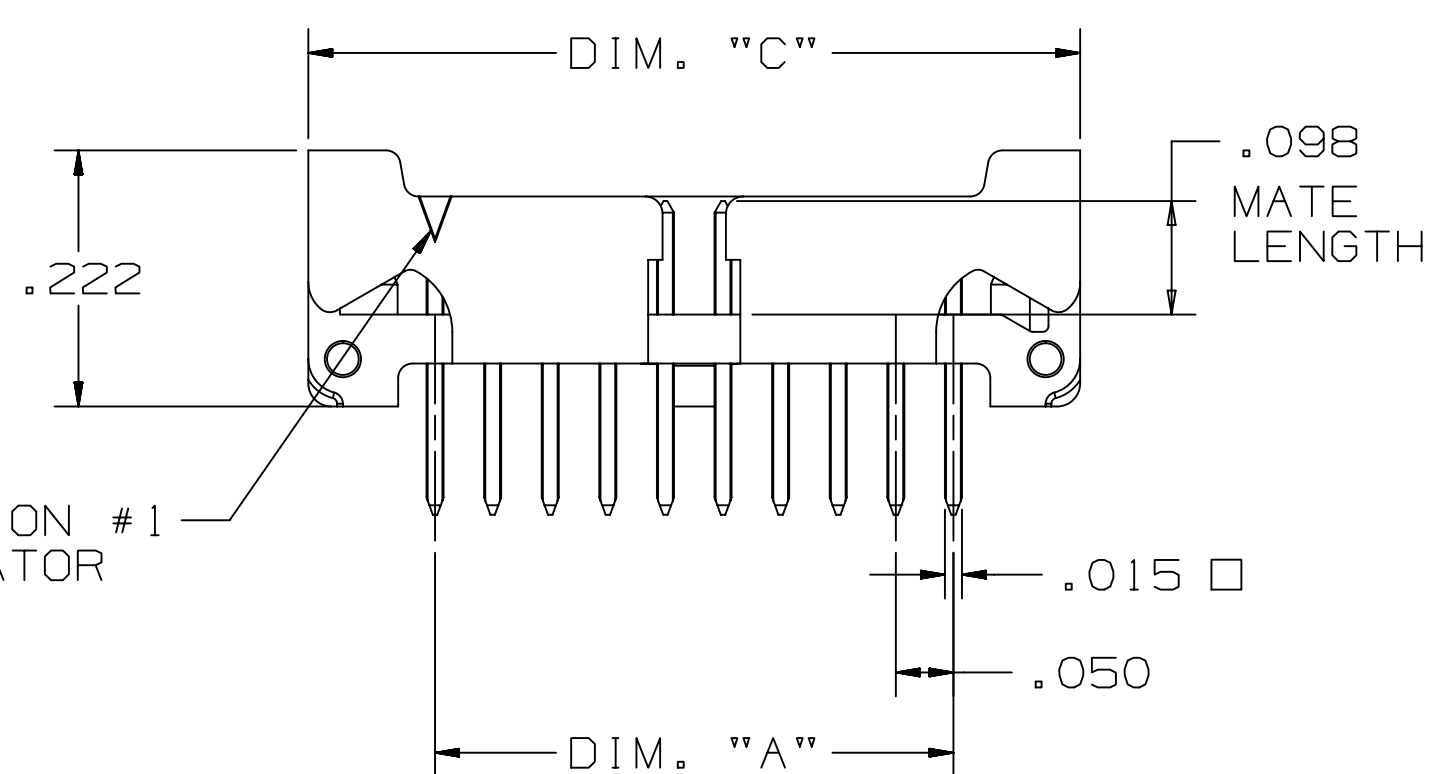


TABLE 1: VERTICAL THRU

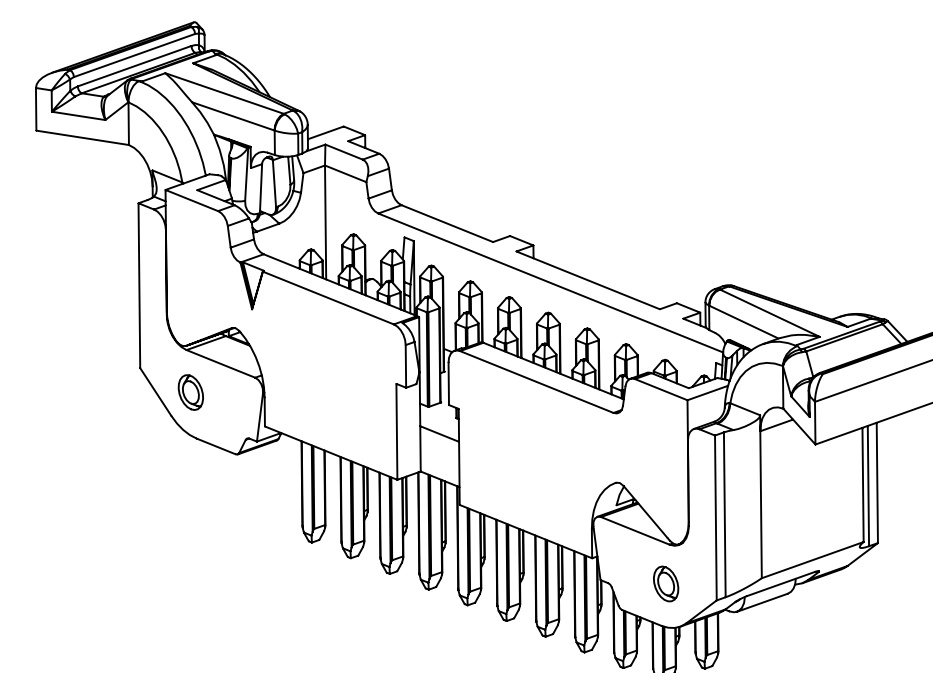
No. of Positions	Dim "A"	Dim "B"	Dim "C"	Dim "D"
4	.050	.215	.270	.600
6	.100	.265	.320	.650
8	.150	.315	.370	.700
10	.200	.365	.420	.750
12	.250	.415	.470	.800
14	.300	.465	.520	.850
16	.350	.515	.570	.900
20	.450	.615	.670	1.000
26	.600	.765	.820	1.150
30	.700	.865	.920	1.250
40	.950	1.115	1.170	1.500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

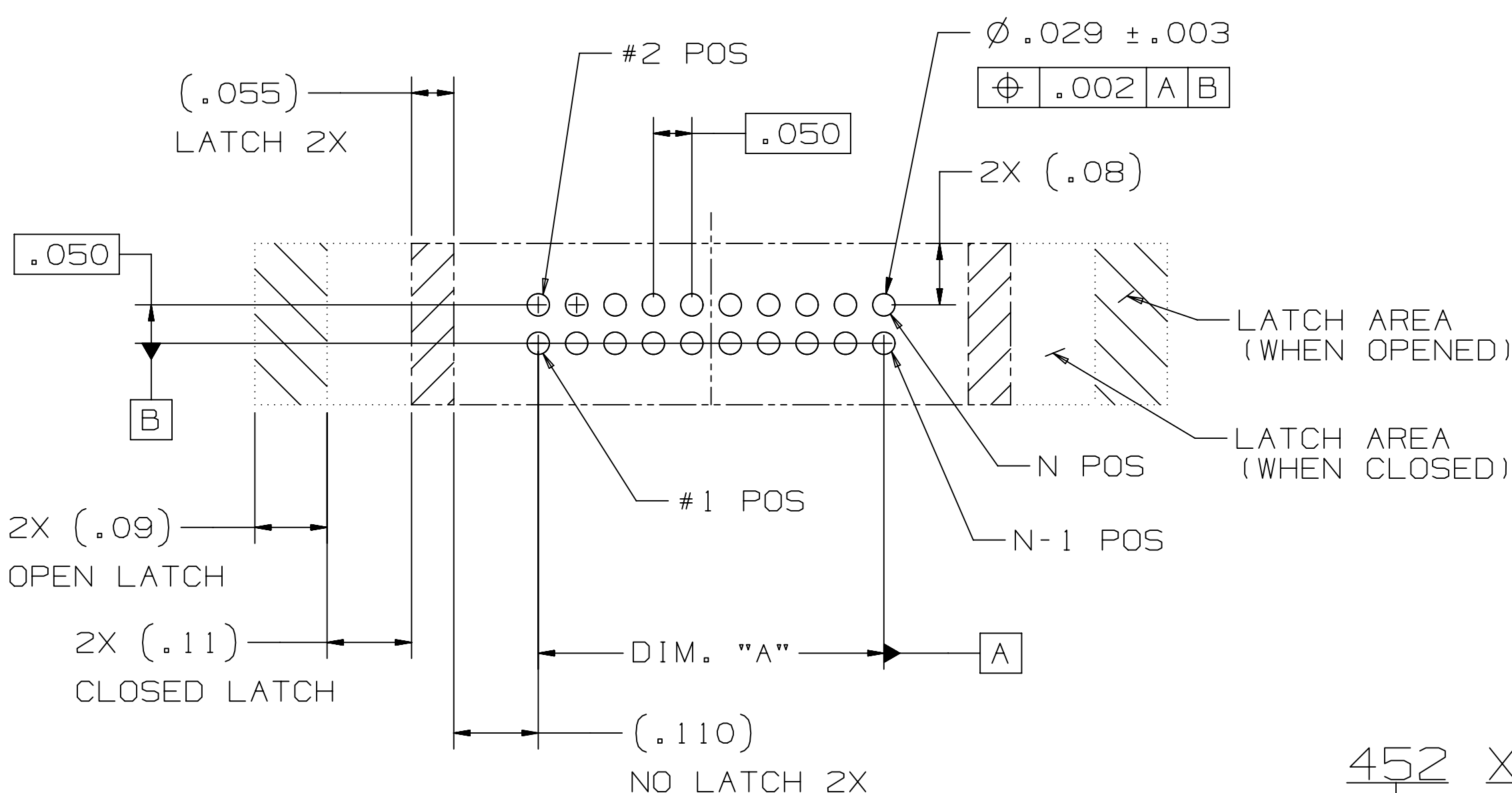


POLARIZATION AND FRICTION LATCHING POSITIONS 8 AND HIGHER ONLY



WITH LATCH/EJECT

THRU BOARD, VERTICAL

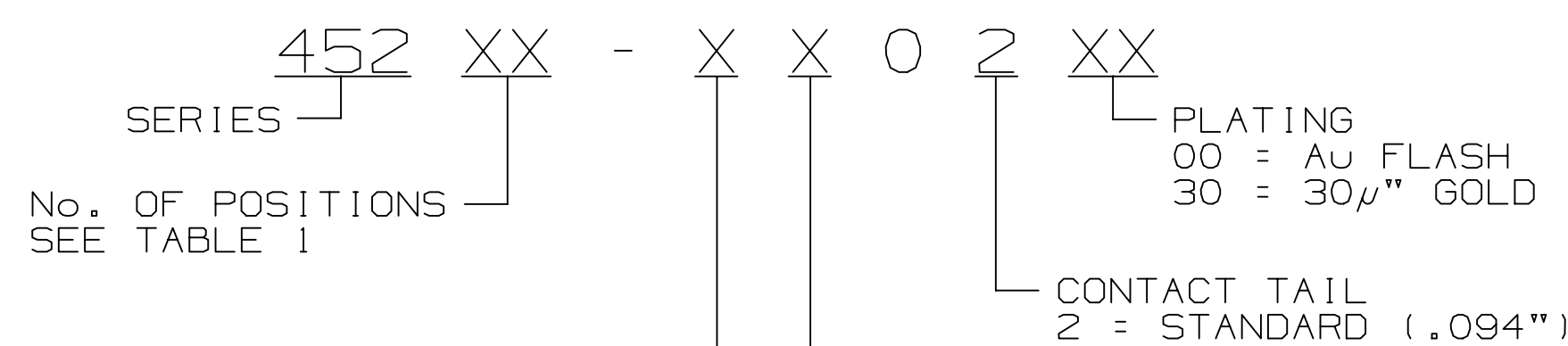


RECOMMENDED BOARD LAYOUT

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<sub>ac</sub>  
INSULATION RESISTANCE: > 1 × 10<sup>9</sup> 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



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

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INFORMATION CALL 800-225-5373

**UL**  
UL FILE NO: E68080

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
78-5100-2436-3 78-5100-2396-9						
		ARM		DATE NOV 29, 2012	PRC	DATE NOV 29, 2012
		SAN		DATE NOV 29, 2012	SAN	DATE 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, .0 ± .005, .000 ± .005

INTERPRET PER ASME Y14.5 - 2018

MAX SURFACE ROUGHNESS: ALL SURFACES, .000 ± .000

THIRD ANGLE PROJECTION

MARKED ONLY

3M Center St. Paul, MN 55144

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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: 1515

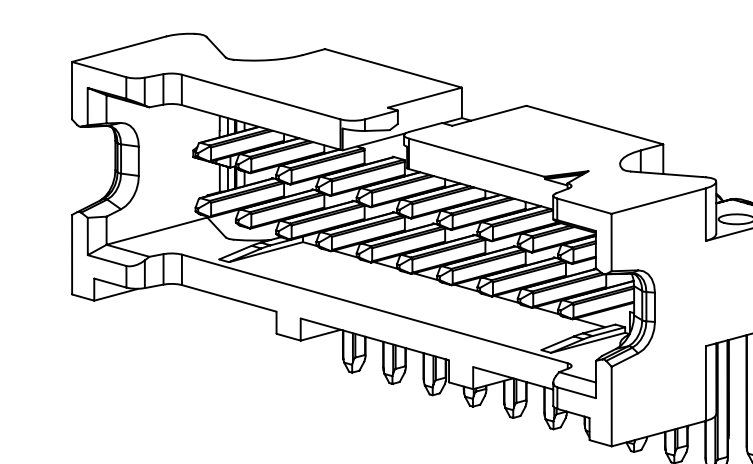
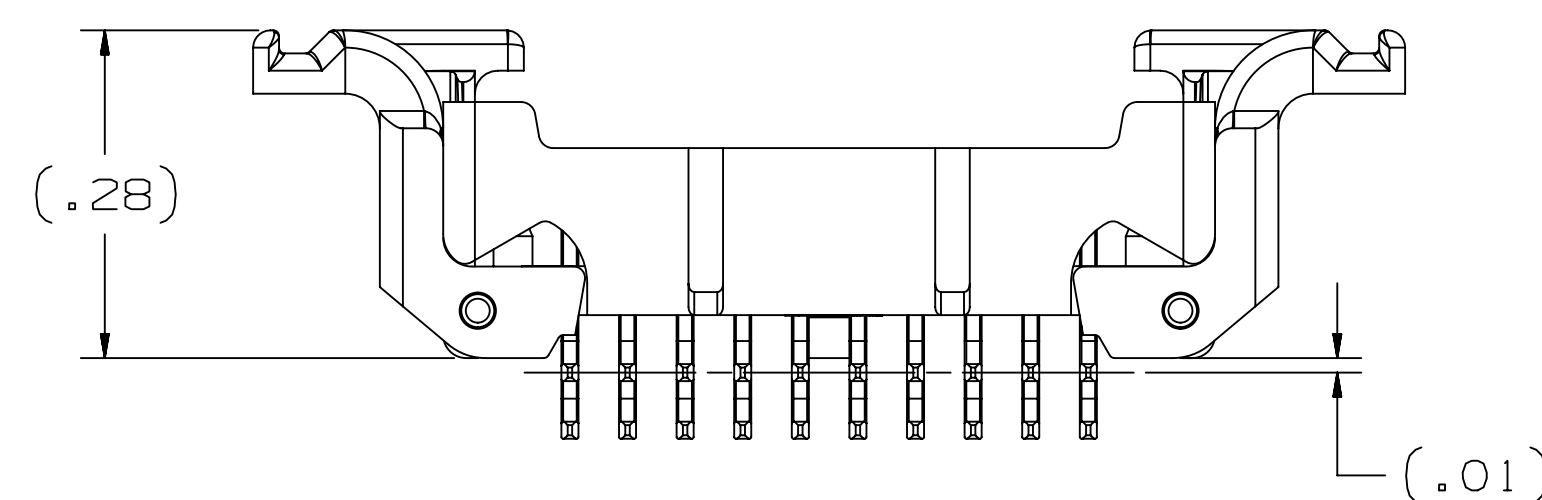
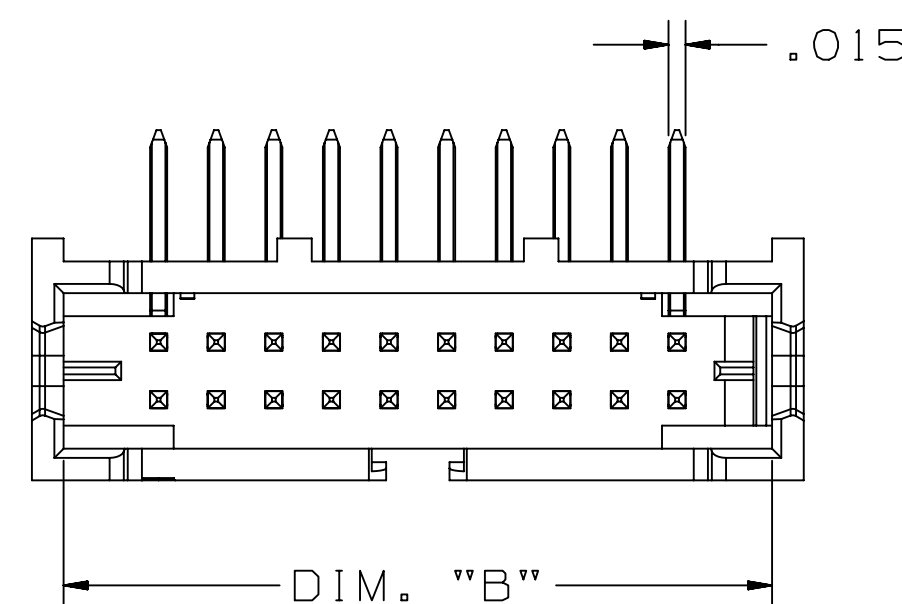
SHT 1 OF 5

78-5100-2437-1  
DRAWING NUMBER

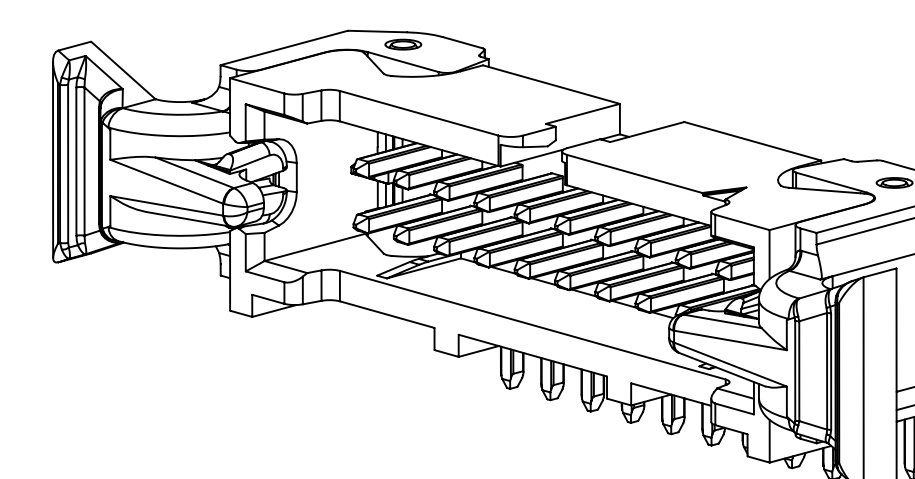
3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH  
LATCH AND EJECT, 452 SERIES

TABLE 1: RIGHT ANGLE THRU

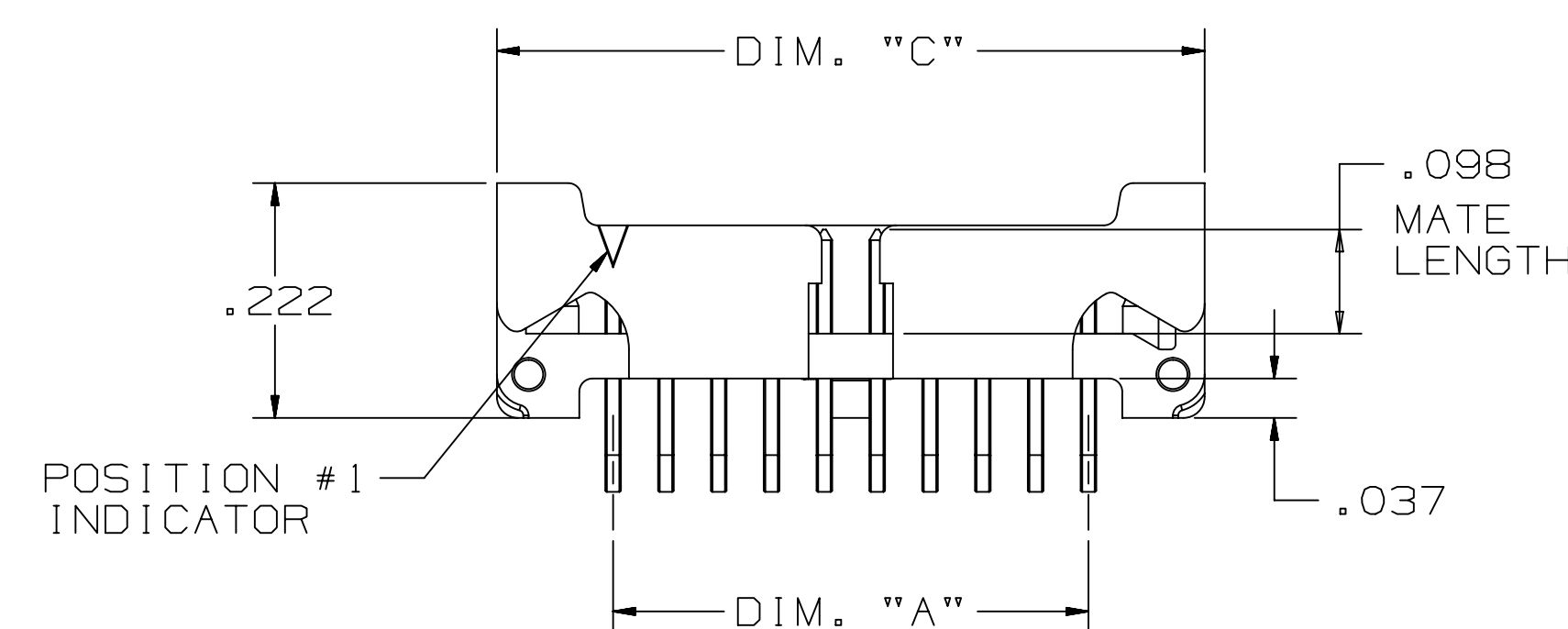
No. Positions	Dim "A"	Dim "B"	Dim "C"
4	.050	.215	.270
6	.100	.265	.320
8	.150	.315	.370
10	.200	.365	.420
12	.250	.415	.470
14	.300	.465	.520
16	.350	.515	.570
20	.450	.615	.670
26	.600	.765	.820
30	.700	.865	.920
40	.950	1.115	1.170
50	1.200	1.365	1.420



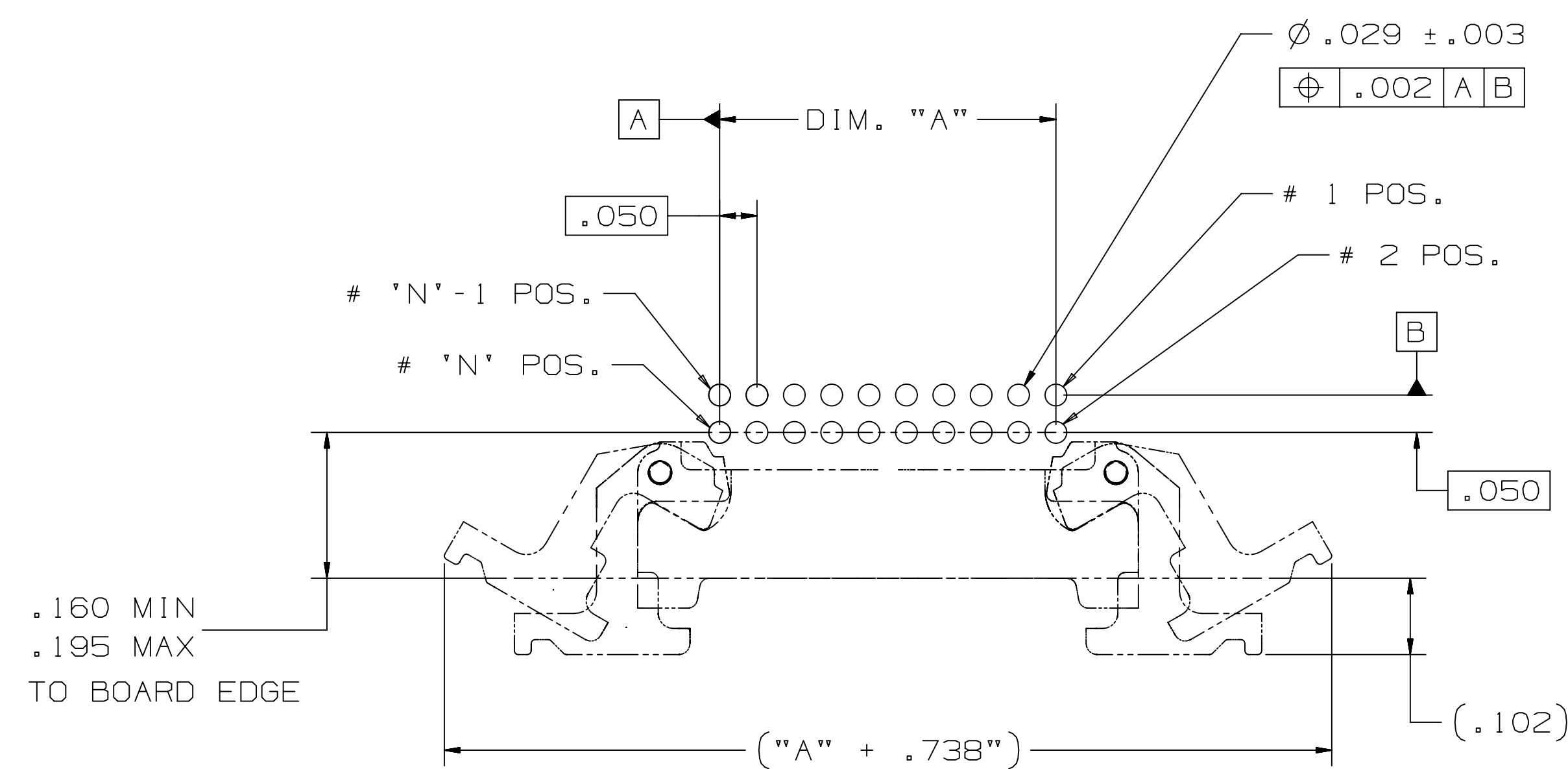
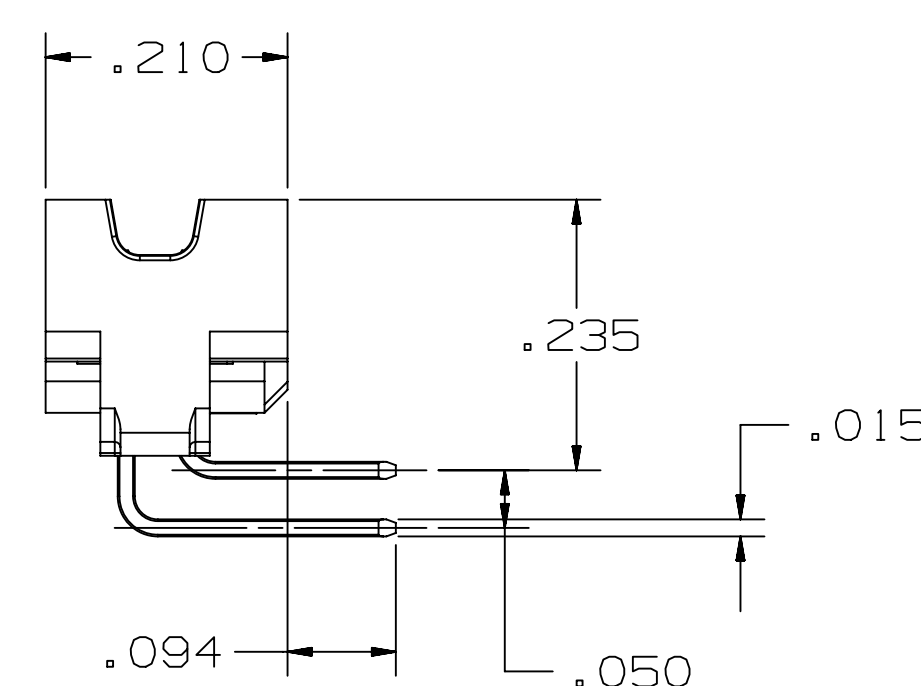
WITHOUT LATCH/EJECT



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	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: 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: .000 ±

MARKED ONLY

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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 2 OF 5

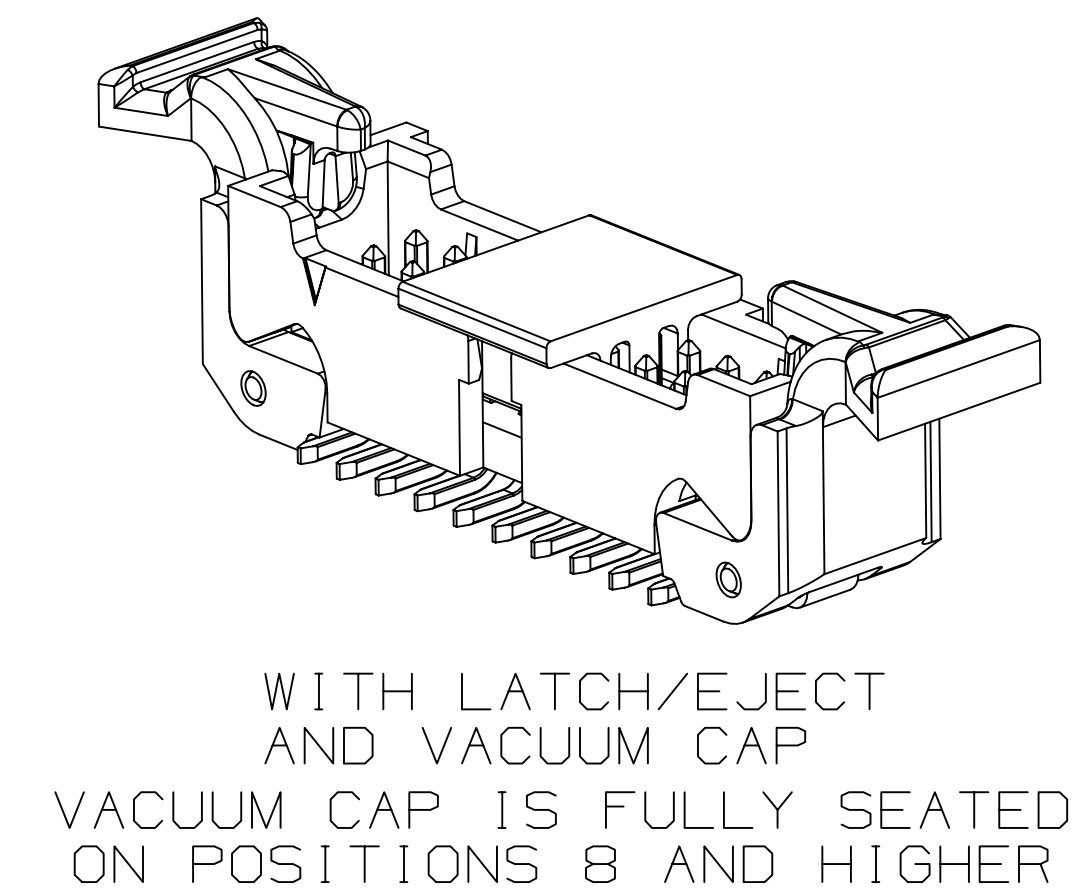
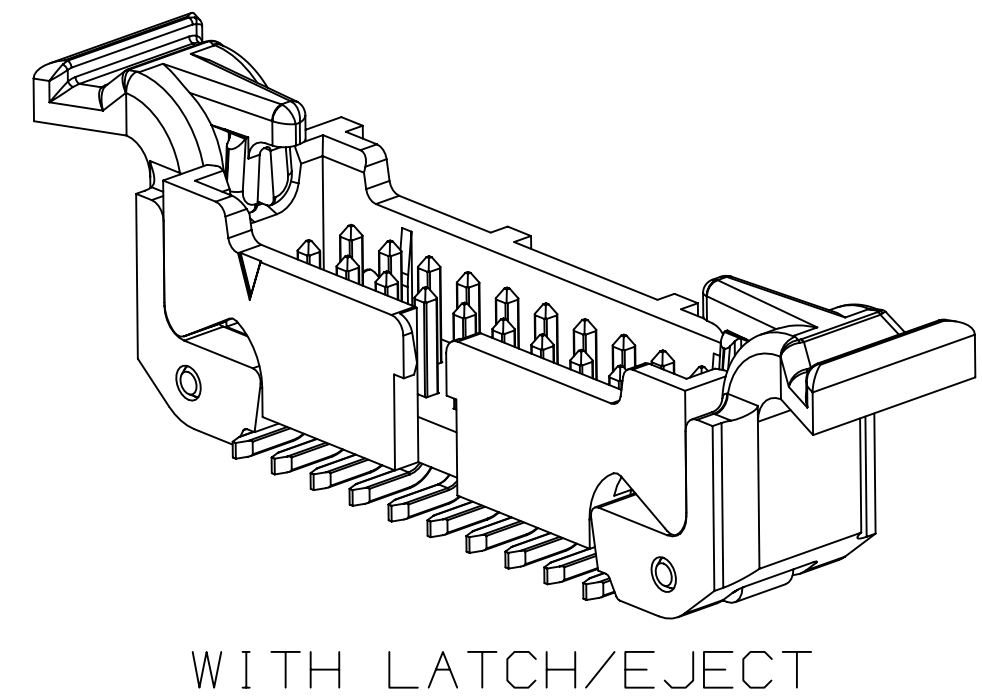
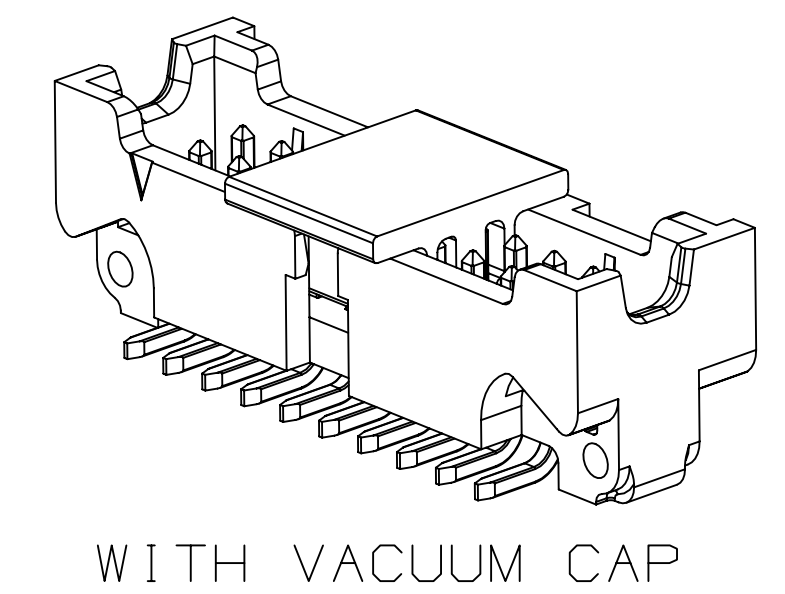
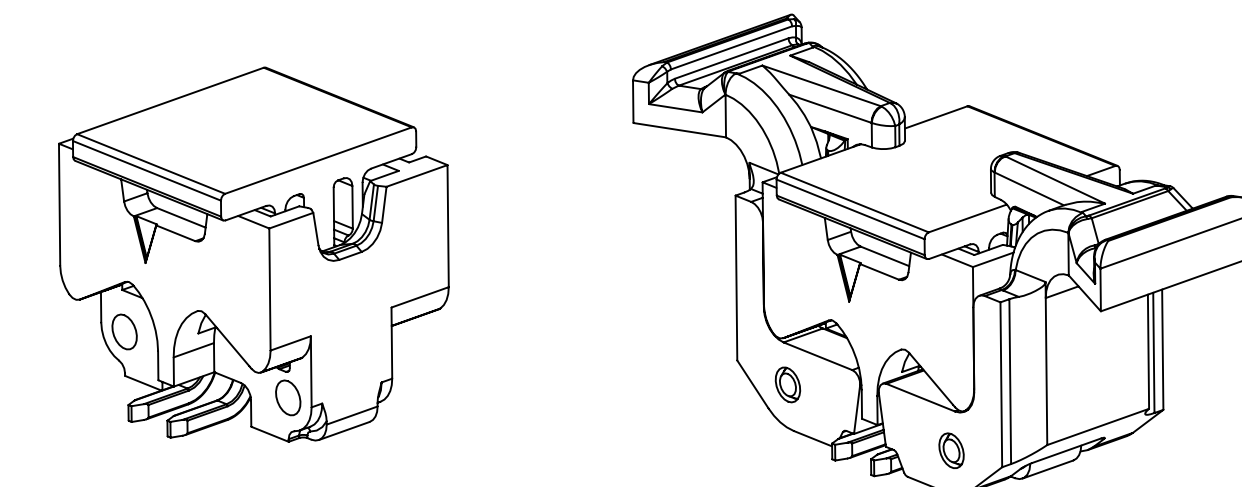
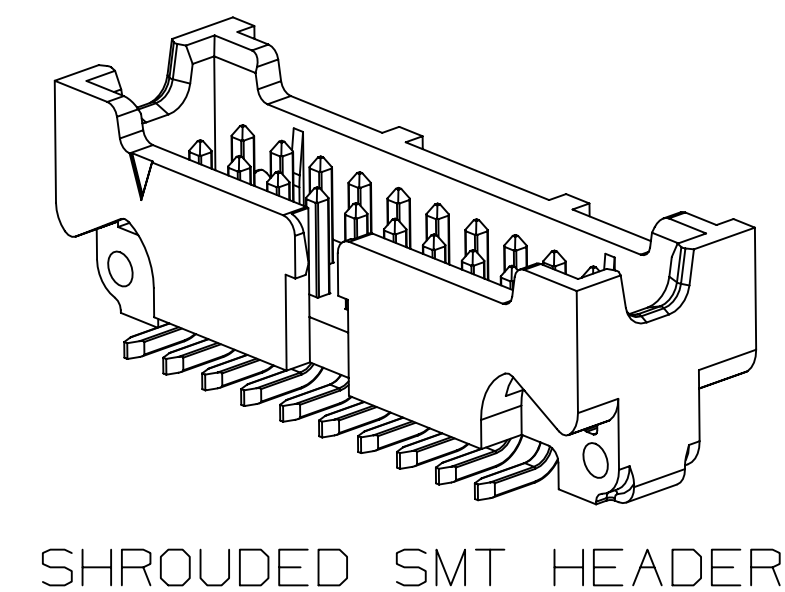
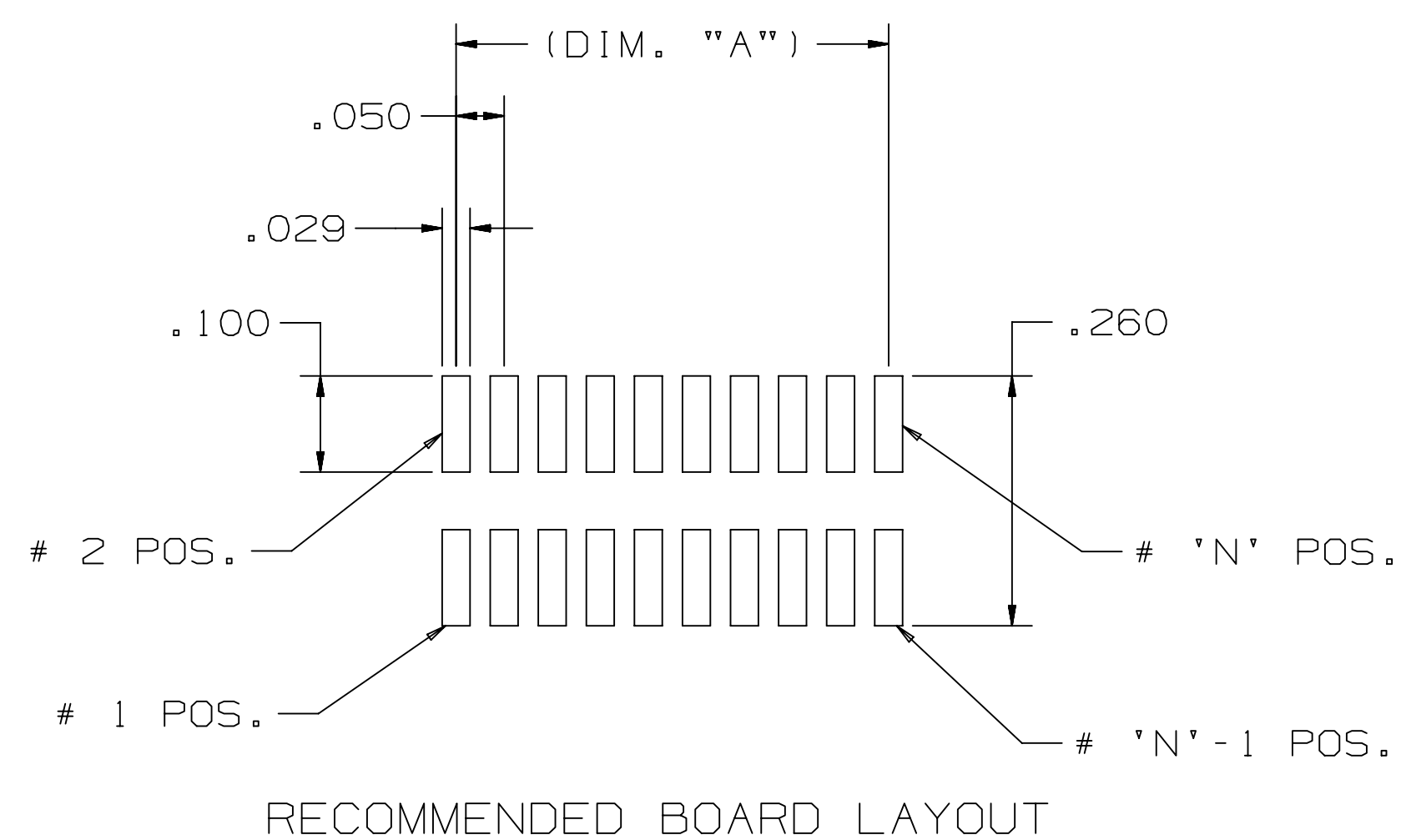
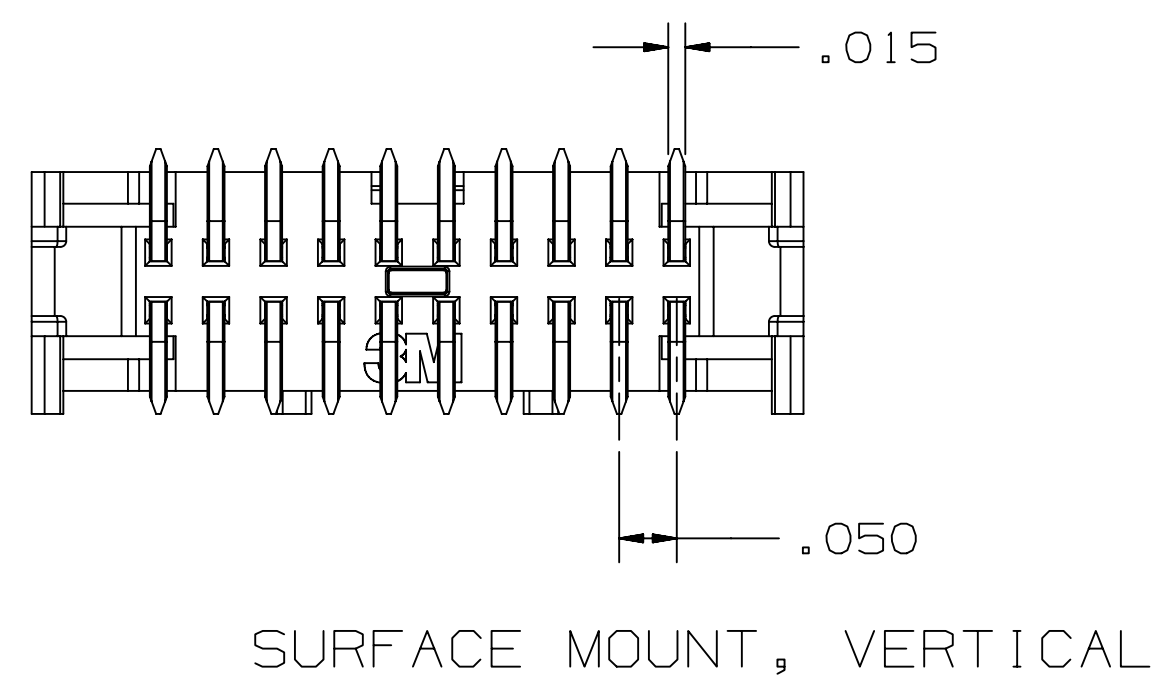
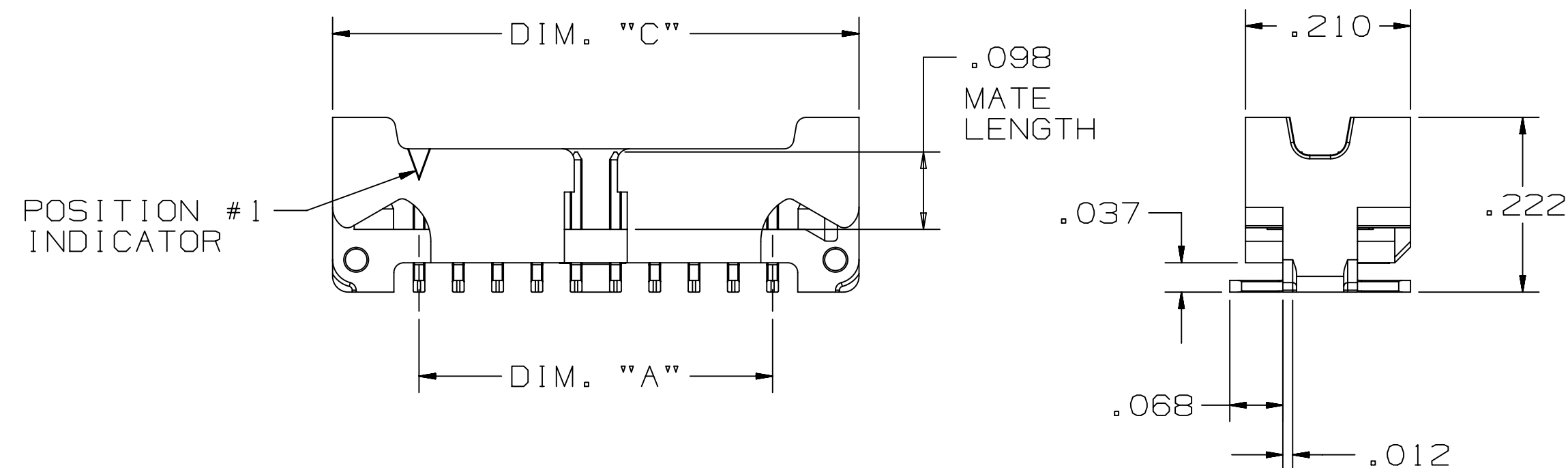
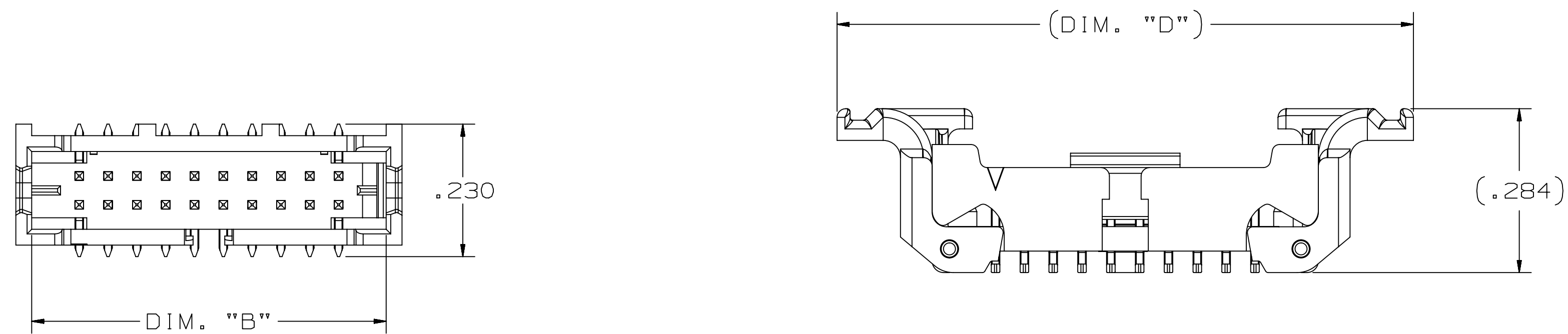
78-5100-2437-1  
DRAWING NUMBER

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



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 ARM DATE NOV 29, 2012 PRC DATE NOV 29, 2012  
CHKD SAN DATE NOV 29, 2012 APPVL SAN DATE NOV 29, 2012

DIVISION DIVISION CODE  
EMSD

DO NOT SCALE DRAWING SCALE 6/1 TOLERANCES EXCEPT AS NOTED

THIRD ANGLE PROJECTION INTERPRET PER ASME Y14.5 - 2018

MAX SURFACE ROUGHNESS ALL SURFACES MARKED ONLY

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

MILLIMETERS 0 ±  
.0 ±  
.00 ±  
.000 ±

ANGLES ±

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

CAGE NUMBER D78-5100-2437-1 REV. H

MODEL 452 DET 151's YES 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

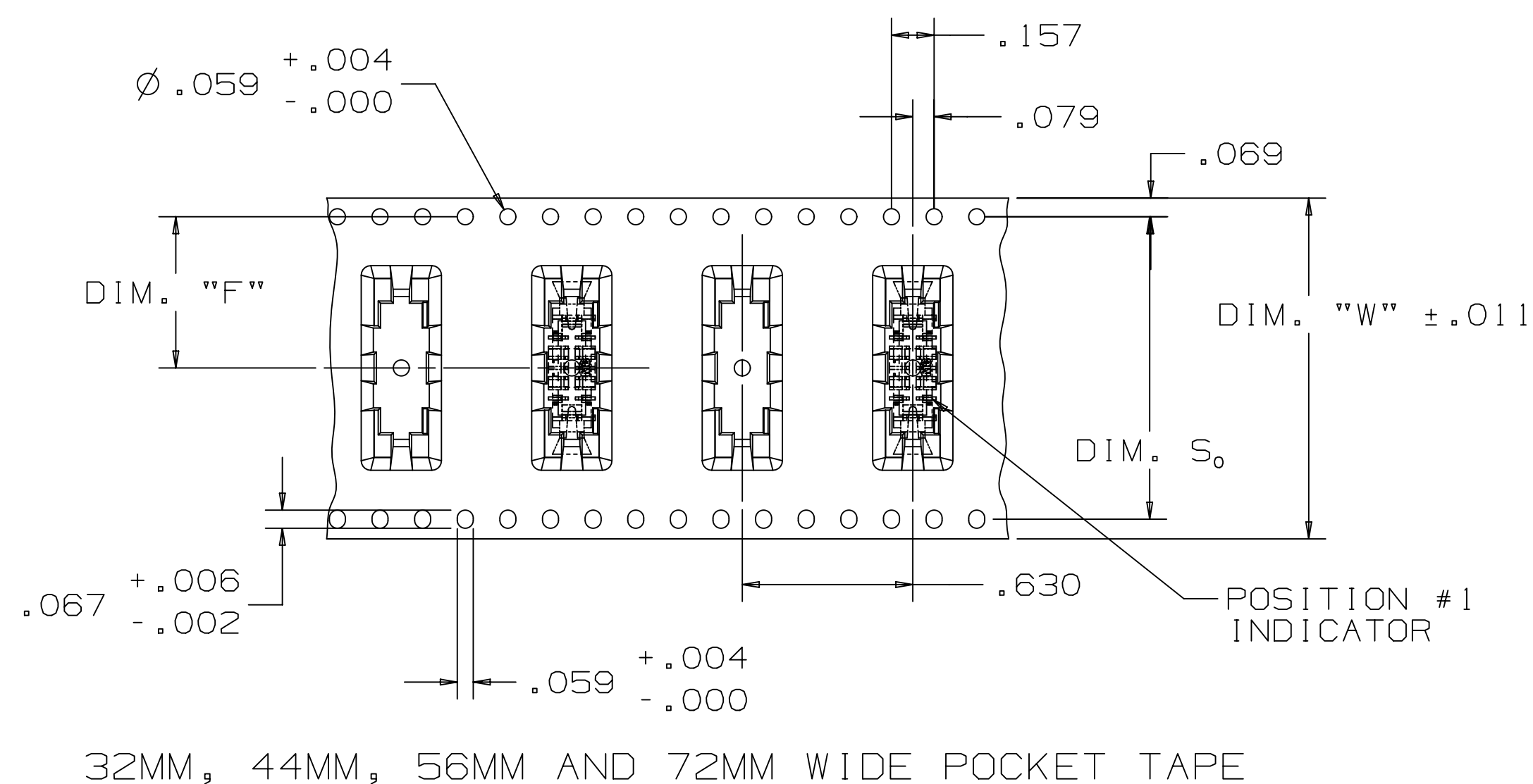
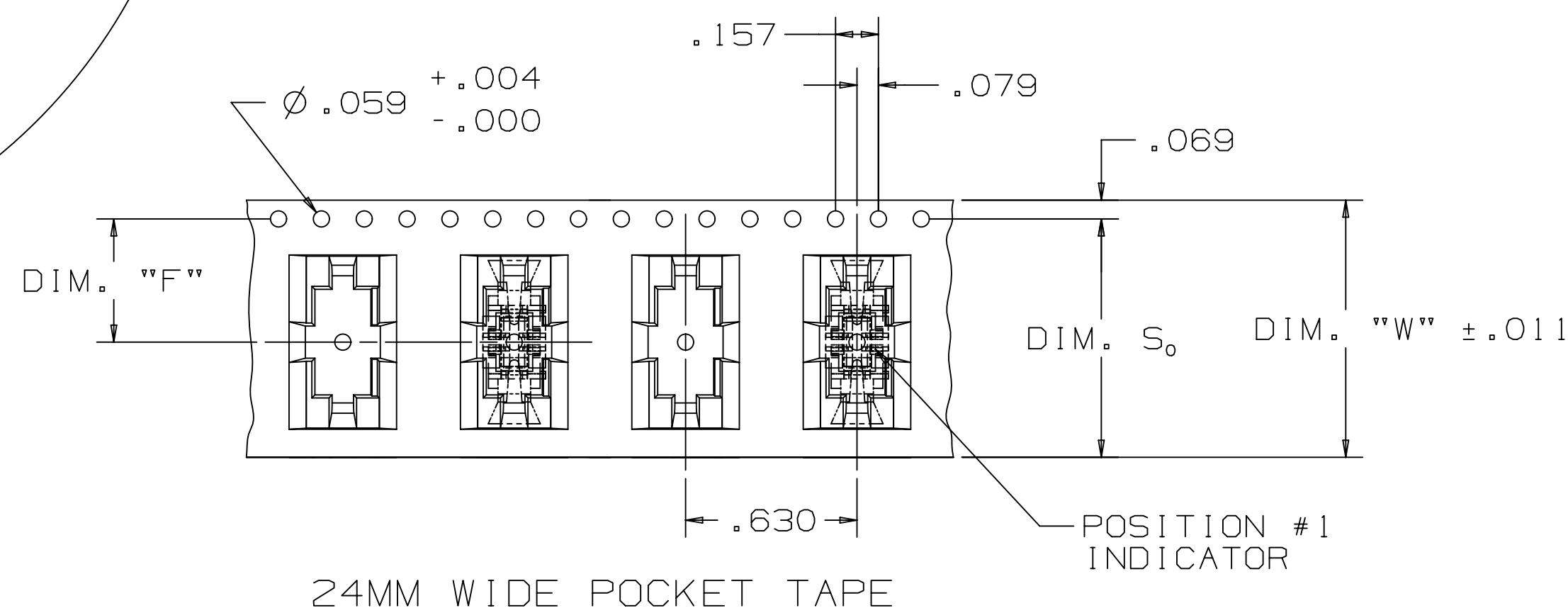
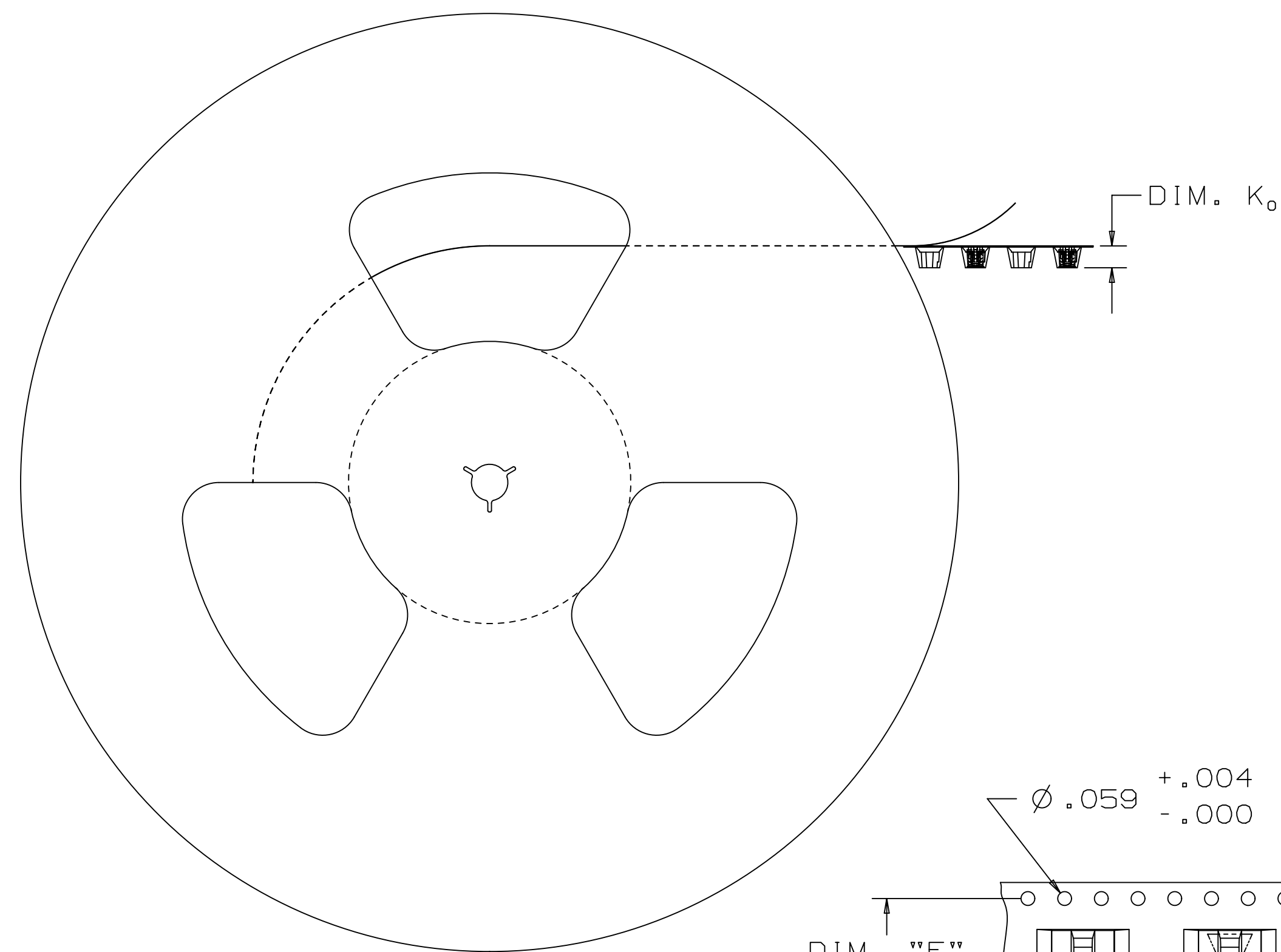
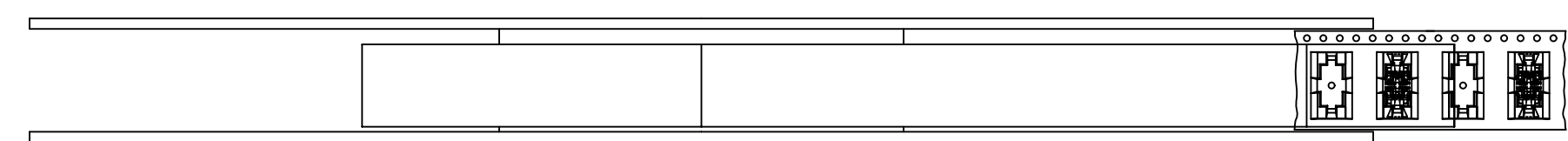


TABLE 2  
TAPE AND REEL PACKAGING FOR SURFACEMOUNT HEADERS

POS	LATCHES	DIM. "F"	DIM. K <sub>0</sub>	DIM. S <sub>0</sub>	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

78-5100-2437-1

3M Center St. Paul, MN 55144

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

78-5100-2437-1 H

452

1 OF 5

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

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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

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

CAGE NUMBER D78-5100-2437-1

SIZE

DRAWING NO. H

MODEL 452

DET

IS: 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

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

3M:

[45226-220230](#) [45226-620230](#) [45240-220230](#) [45240-620230](#) [45250-220230](#) [45250-620230](#)