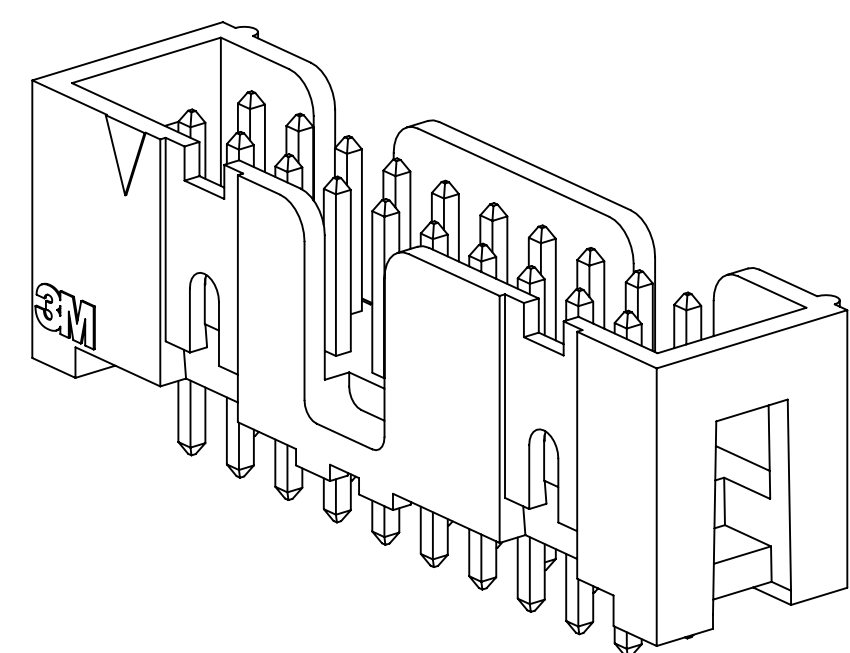
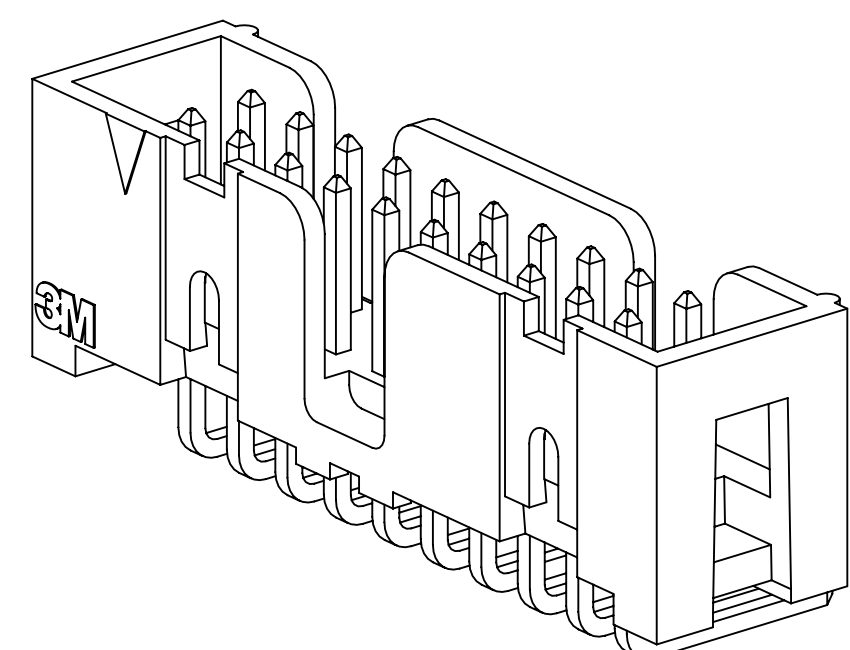


3M™ FOUR-WALL HEADER, 2500 SERIES

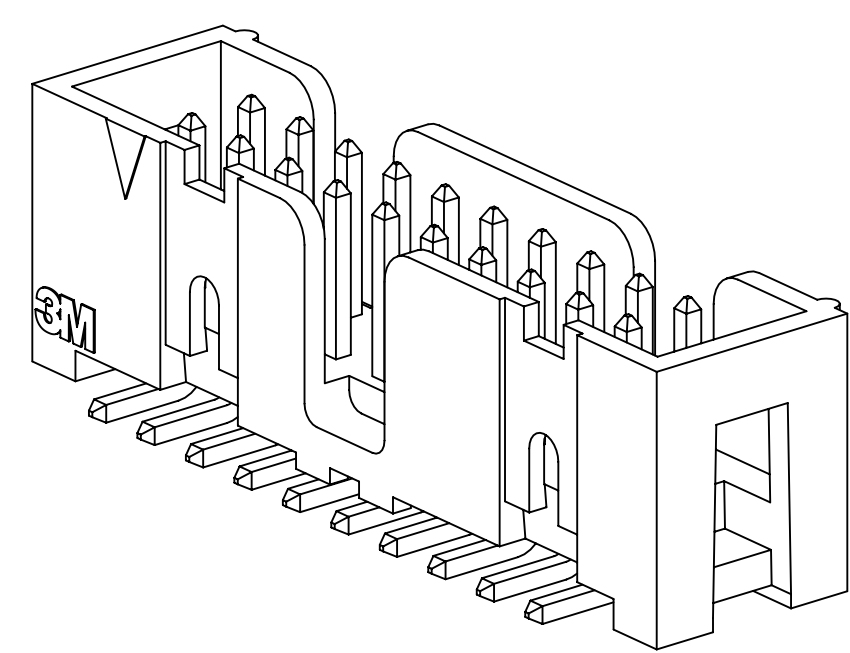
.100" X .100" LOW PROFILE, SURFACE MOUNT, STRAIGHT AND RIGHT ANGLE THROUGH-HOLE



25XX-60XX
STRAIGHT VERSION



25XX-50XX
RIGHT ANGLE VERSION



25XX-6VOC
SURFACE MOUNT VERSION

- * LOW PROFILE, SPACE SAVING DESIGN.
- * CENTER SLOT POLARIZATION PREVENTS MIS-INSERTIONS AND REDUCES INSERTION TIME.
- * DUAL SLOT POLARIZATION MEANS BROADER COMPATIBILITY WITH COMPETITIVE POLARIZATION DESIGNS (NOT AVAILABLE ON 6, 8 OR 10 POSITIONS).
- * OPTIONAL RETAINER CLIP FOR LOCKING SOCKETS IN PLACE AND INCREASING CONNECTION RELIABILITY IN VIBRATION-PRONE ENVIRONMENTS.
- * HIGH TEMPERATURE INSULATOR SUITABLE FOR "NO LEAD" SOLDERING OPERATIONS.
- * THROUGH HOLE VERSION SUITABLE FOR REFLOW SOLDERING USING "PASTE IN HOLE" TECHNIQUES.
- * EXPOSED SOLDER TAILS (ON RIGHT ANGLE VERSION) PROVIDE EASE OF CLEANING AND REDUCED REPAIR COST.
- * STRAIGHT SURFACE MOUNT VERSION AVAILABLE.

2 PHYSICAL :

INSULATOR:
 MATERIAL: GLASS FILLED POLYESTER (PCT)
 FLAMMABILITY: UL94V-0
 COLOR: BLACK
 CONTACT:
 MATERIAL: COPPER ALLOY
 PLATING:
 UNDER PLATING: 100μ" (2.54μm) NICKEL-OVERALL
 WIPING AREA: AVG. GOLD (SEE ORDERING INFORMATION)
 SOLDER TAILS: 200μ" (5.08μm) TIN LEAD OR MATTE TIN (SEE ORDERING INFORMATION)
 MARKINGS: 3M LOGO, PART IDENTIFICATION NUMBER AND ORIENTATION TRIANGLE

2 ELECTRICAL :

CURRENT RATING: 5.00A, 1 CONTACT POWERED
 3.00A, 6 CONTACTS POWERED
 1.75A, ALL CONTACTS POWERED
 RATING CONDITIONS: EIA-364-070 METHOD 2, 30°C MAXIMUM TEMPERATURE RISE, 20% DERATED. REFERENCE APPROPRIATE 3M PRODUCT SPECIFICATION FOR DETAILED CURRENT DERATING CURVES.
 INSULATION RESISTANCE: >1 X 10⁹Ω AT 500 V_{DC}
 WITHSTANDING VOLTAGE: 1,000V_{RMS} AT SEA LEVEL

2 ENVIRONMENTAL :

TEMPERATURE RATING: -55°C TO 105°C
 PROCESS RATING: 260°C, PER J-STD-020C, SINGLE PASS
 MOISTURE SENSITIVITY LEVEL: 1 (PER J-STD-020C)

- NOTES
1. REGULATORY INFORMATION: ROHS COMPLIANT. SEE THE REGULATORY INFORMATION APPENDIX (RIA) IN THE "ROHS COMPLIANCE" SECTION OF WWW.3MCONNECTORS.COM FOR COMPLIANCE INFORMATION.
 2. IN THE EVENT OF CONFLICT BETWEEN THIS DATA AND THAT CONTAINED IN THE PRODUCT SPECIFICATION, THE PRODUCT SPECIFICATION TAKES PRECEDENT.
 3. NOTCHES A & C WILL ACCOMODATE 3M POLARIZING KEY: N3518.
 4. CONTACT TAILS .0245 (.622) WIRE WITH .0075 (.191) CORNER RADIUS AND .028 (.072) DIAGONAL.
 5. SOLDER STANDOFFS FACILITATE .01 (.3) CLEARANCE ABOVE BOARD FOR REFLOW SOLDERING.

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

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 INFORMATION CALL 800-225-5373

3M logo
 UL FILE NO: E68080

DIMENSIONS: INCHES [MM]
 [MM] IS REF. ONLY

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD		
DATE	DATE	DATE	DATE	DATE		
CHGD	CHGD	APPR	APPR	DATE	DATE	DATE
CASTIGLIONE	AUG 11, 2014	MFG				
		R. SCHERER		SEP 05, 2014		
DIVISION		DIVISION CODE		© 3M COPYRIGHT 2016		
Interconnect Solutions		EMSD		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.		
DO NOT SCALE DRAWING	SCALE 4/1	TOLERANCES EXCEPT AS NOTED		3M logo		
		INCHES		TITLE		
		.00 ± .01		HEADER, 4-WALL,		
		.000 ± .005		LO-PRO, .100 X .100,		
		.0000 ±		SMT, STRAIGHT & RA		
		MILLIMETERS		CAGE NUMBER		
		0 ±		D78-5100-0770-7		
		.0 ± .3		REV.		
		.00 ± .13		N		
		.000 ±		MODEL		
		ANGLES		2500 SERIES		
		MARKED ONLY		SHT 1 OF 5		

N REVISION
 78-5100-0770-7
 DRAWING NUMBER
 B
 A
 11:10 AM UTC-05:00
 Imaged: N.1 B/5/2016

3M™ FOUR-WALL HEADER, 2500 SERIES

.100" X .100" LOW PROFILE, SURFACE MOUNT, STRAIGHT AND RIGHT ANGLE THROUGH-HOLE

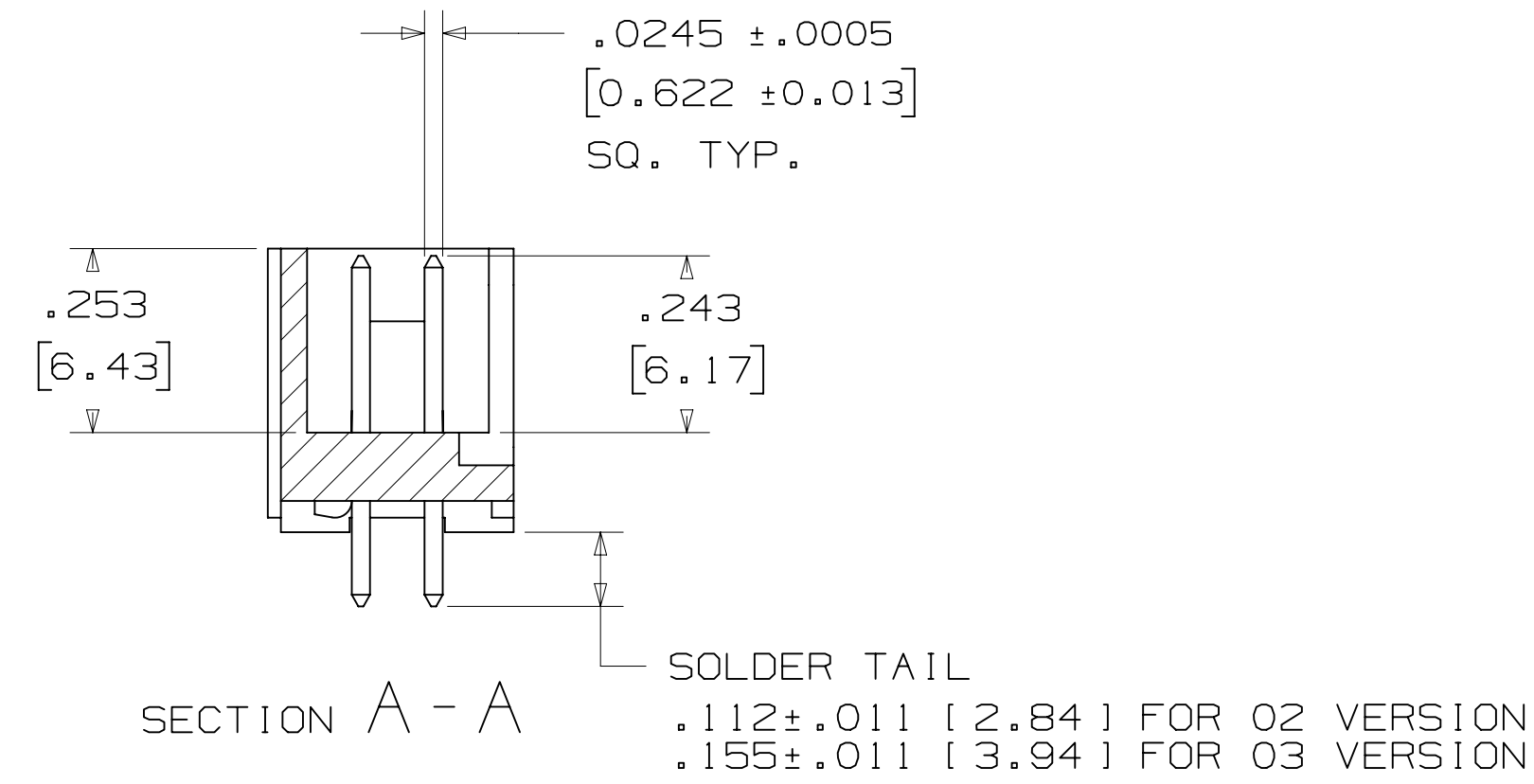
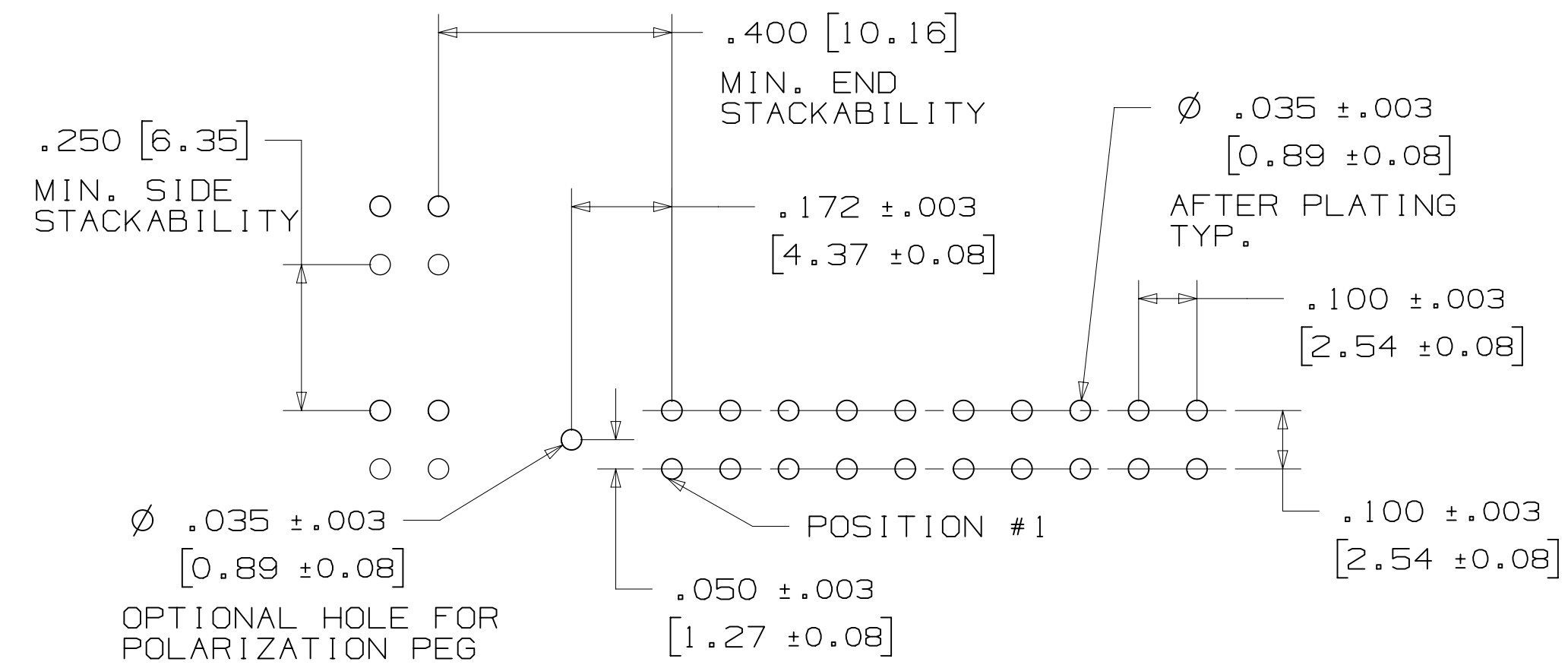
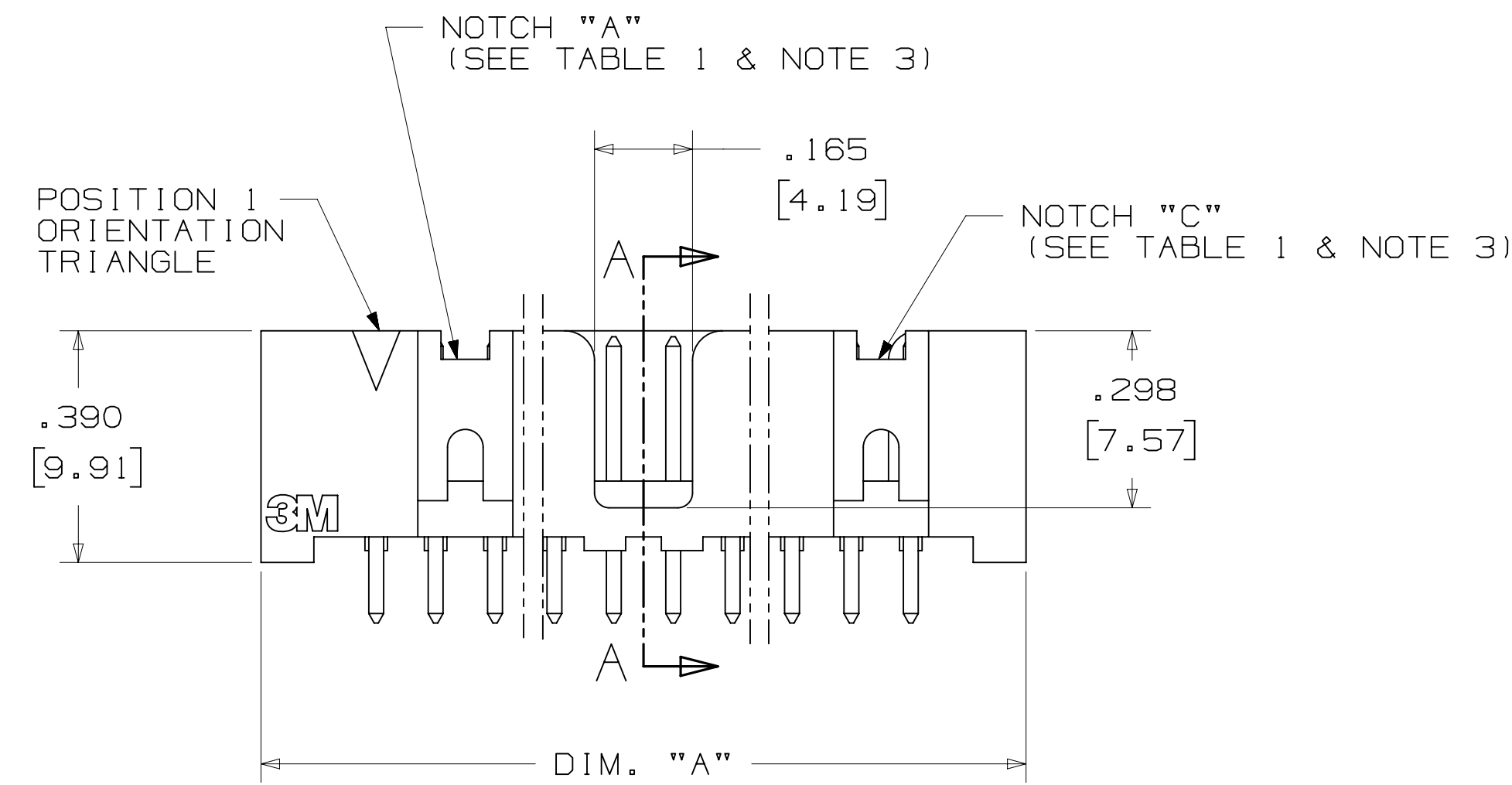
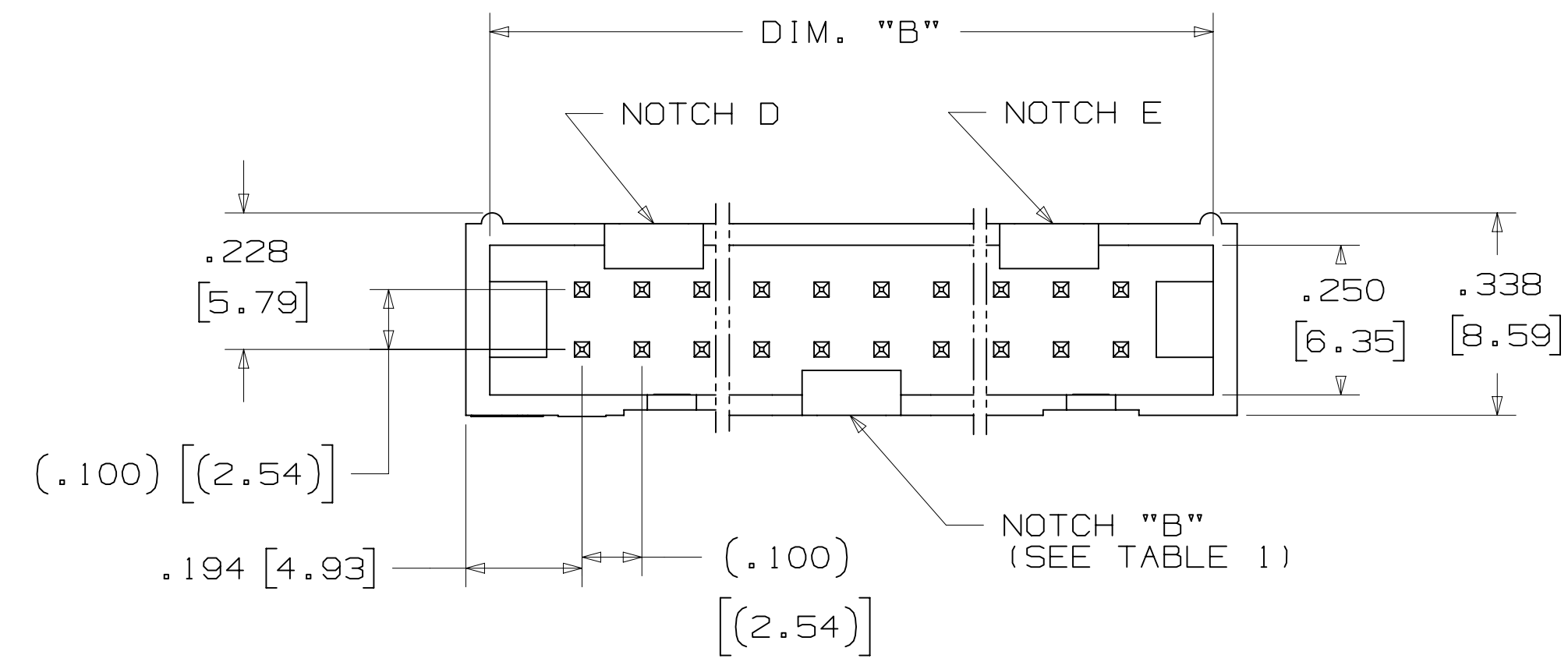


TABLE 1				
PIN QTY.	DIM. "A"	DIM. "B"	POLARIZING NOTCHES	PIN QTY.
06	.588 [14.94]	.508 [12.90]	B	06
08	.688 [17.48]	.608 [15.44]	B	08
10	.788 [20.02]	.708 [17.98]	BC	10
14	.988 [25.10]	.908 [23.06]	BCDE	14
16	1.088 [27.64]	1.008 [25.60]	ABCDE	16
20	1.288 [32.72]	1.208 [30.68]	ABCDE	20
24	1.488 [37.80]	1.408 [35.76]	ABCDE	24
26	1.588 [40.34]	1.508 [38.30]	ABCDE	26
30	1.788 [45.42]	1.708 [43.38]	ABCDE	30
34	1.988 [50.50]	1.908 [48.46]	ABCDE	34
36	2.088 [53.04]	2.008 [51.00]	ABCDE	36
40	2.288 [58.12]	2.208 [56.08]	ABCDE	40
50	2.788 [70.82]	2.708 [68.78]	ABCDE	50
60	3.288 [83.52]	3.208 [81.48]	ABCDE	60
64	3.488 [88.60]	3.408 [86.56]	ABCDE	64



ORDERING INFORMATION STRAIGHT VERSION

X25XX - 60XX - XX

N = HIGH TEMP BLACK (PCT)
(RB, UB OR UG PLATING REQ'D)
BLANK = (UB OR UG PLATING)

PIN QUANTITY:
(SEE TABLE 1)

SOLDER TAIL:
02 = FOR .062 [1.57] THICK BOARD
03 = FOR .094 TO .125 [2.39 TO 3.18]
THICK BOARD

PLATING:

RB = 30µ" [0.76µm] AVG. GOLD
200µ" [5.08µm] MATTE TIN (RIA, E1 & C1 APPLY)
UG = 15µ" [0.38µm] AVG. GOLD
200µ" [5.08µm] 60:40 TIN-LEAD SOLDER TAILS
(RIA E3 & C2 APPLY)
UB = 30µ" [0.76µm] AVG. GOLD
200µ" [5.08µm] 60:40 TIN LEAD SOLDER TAILS
(RIA E3 & C2 APPLY)

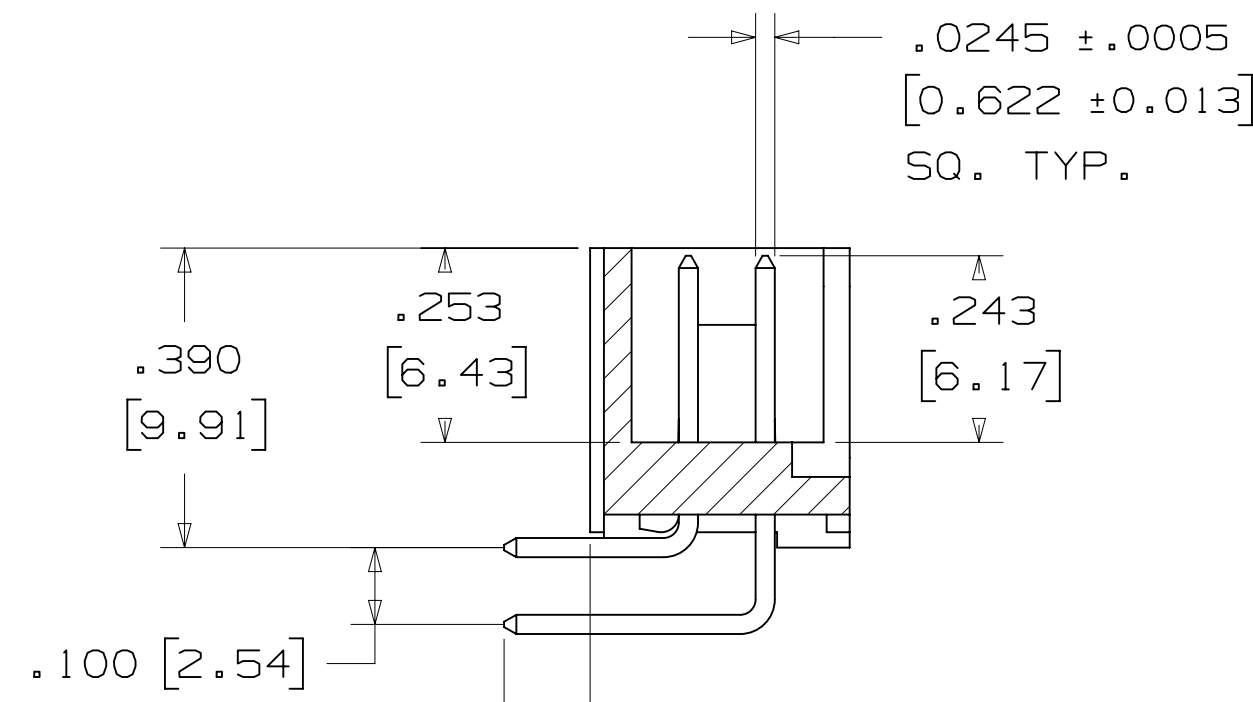
RECOMMENDED HOLE PATTERN SHOWN FROM COMPONENT SIDE

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
				AUG 11, 2014		
DIVISION CODE		DIVISION CODE		DATE		
Interconnect Solutions		EMSD		AUG 11, 2014		
DO NOT SCALE DRAWING	SCALE 4/1	TOLERANCES EXCEPT AS NOTED		DATE		
		INCHES		DATE		
		.00 ± .01		AUG 11, 2014		
		.000 ± .005		SEP 05, 2014		
		.0000 ±		R. SCHERER		
THIRD ANGLE PROJECTION		MILLIMETERS		DATE		
		0 ±		SEP 05, 2014		
		.0 ± .3		MFG		
		.00 ± .13		DATE		
		.000 ±		AUG 11, 2014		
MAX SURFACE ROUGHNESS		ANGLES		DATE		
DT SURFACES				SEP 05, 2014		
MARKED ONLY				MFG		
		CAGE NUMBER		DATE		
		D 78-5100-0770-7		SEP 05, 2014		
		MODEL		DATE		
		2500 SERIES		MFG		
		REV.		DATE		
		N		SEP 05, 2014		
		SHT 2 OF 5				

N	68908	AUG 02, 2016	JNC	SC
M	56068	AUG 11, 2014	JNC	RS

3M™ FOUR-WALL HEADER, 2500 SERIES

.100" X .100" LOW PROFILE, SURFACE MOUNT, STRAIGHT AND RIGHT ANGLE THROUGH-HOLE



SOLDER TAIL
 .112 ± .011 [2.84] FOR O2 VERSION
 .155 ± .011 [3.94] FOR O3 VERSION

SECTION B-B

TABLE 1				
PIN QTY.	DIM. "A"	DIM. "B"	POLARIZING NOTCHES	PIN QTY.
06	.588 [14.94]	.508 [12.90]	B	06
08	.688 [17.48]	.608 [15.44]	B	08
10	.788 [20.02]	.708 [17.98]	BC	10
14	.988 [25.10]	.908 [23.06]	BCDE	14
16	1.088 [27.64]	1.008 [25.60]	ABCDE	16
20	1.288 [32.72]	1.208 [30.68]	ABCDE	20
24	1.488 [37.80]	1.408 [35.76]	ABCDE	24
26	1.588 [40.34]	1.508 [38.30]	ABCDE	26
30	1.788 [45.42]	1.708 [43.38]	ABCDE	30
34	1.988 [50.50]	1.908 [48.46]	ABCDE	34
36	2.088 [53.04]	2.008 [51.00]	ABCDE	36
40	2.288 [58.12]	2.208 [56.08]	ABCDE	40
50	2.788 [70.82]	2.708 [68.78]	ABCDE	50
60	3.288 [83.52]	3.208 [81.48]	ABCDE	60
64	3.488 [88.60]	3.408 [86.56]	ABCDE	64

ORDERING INFORMATION RIGHT ANGLE VERSION

X25XX-50XX-XX

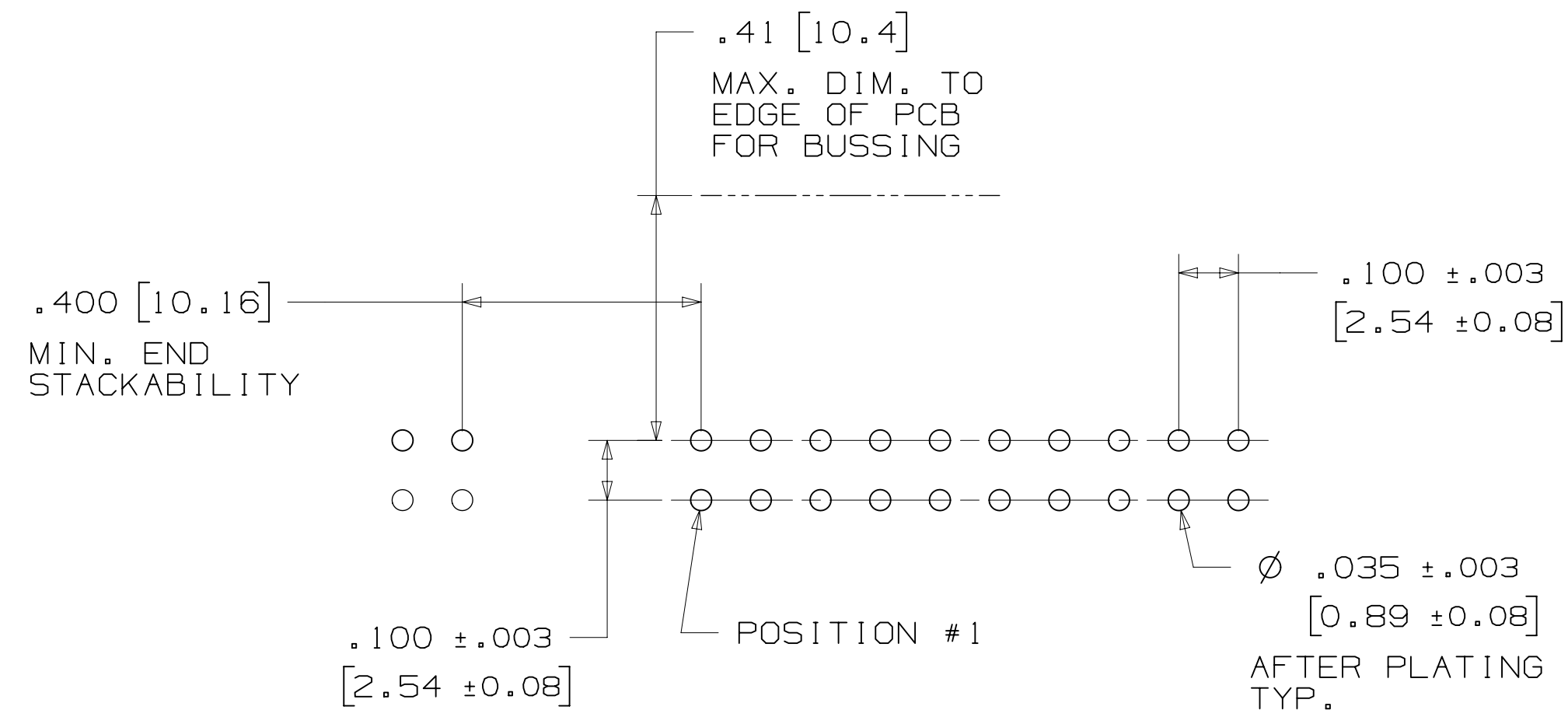
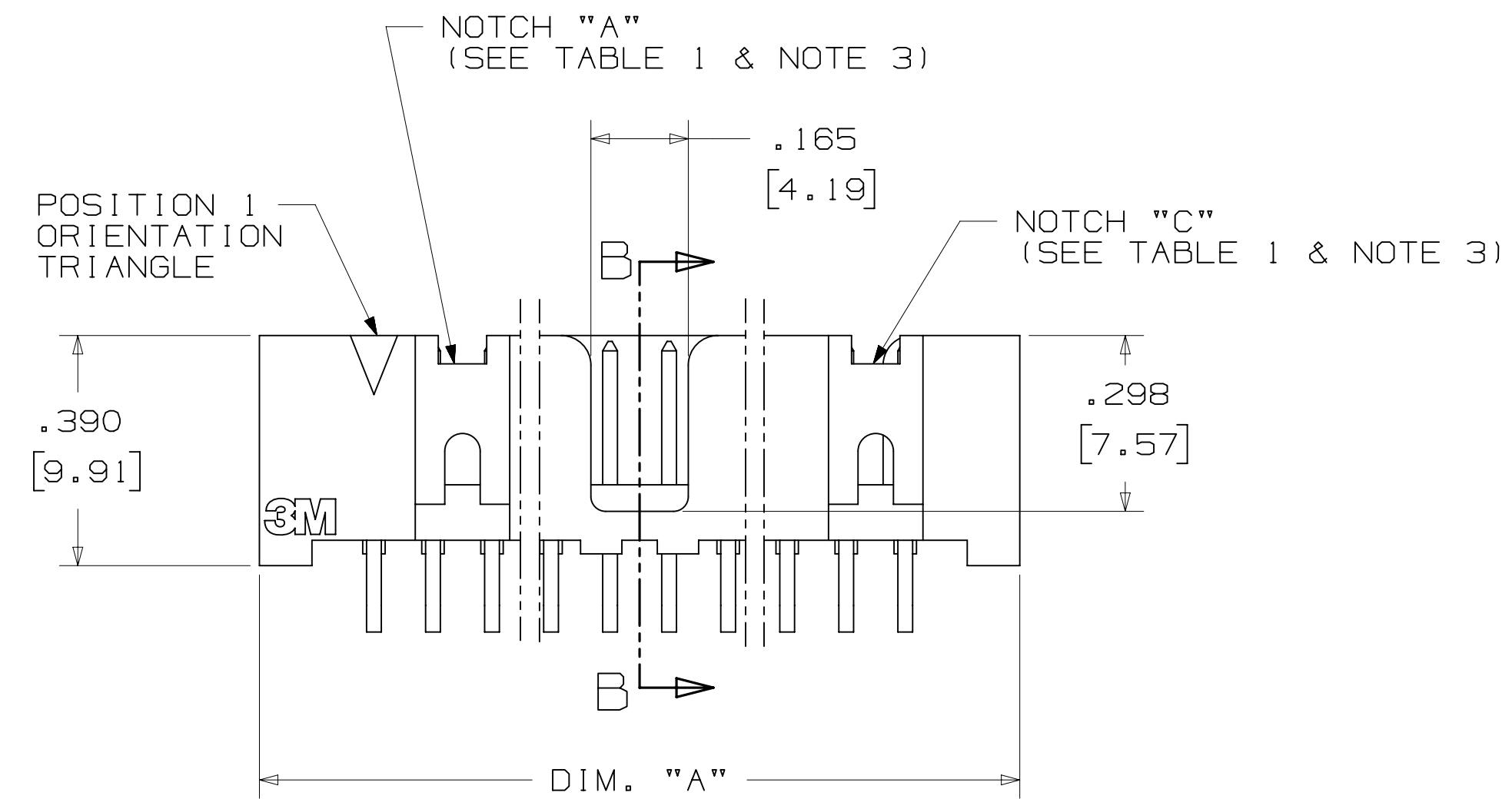
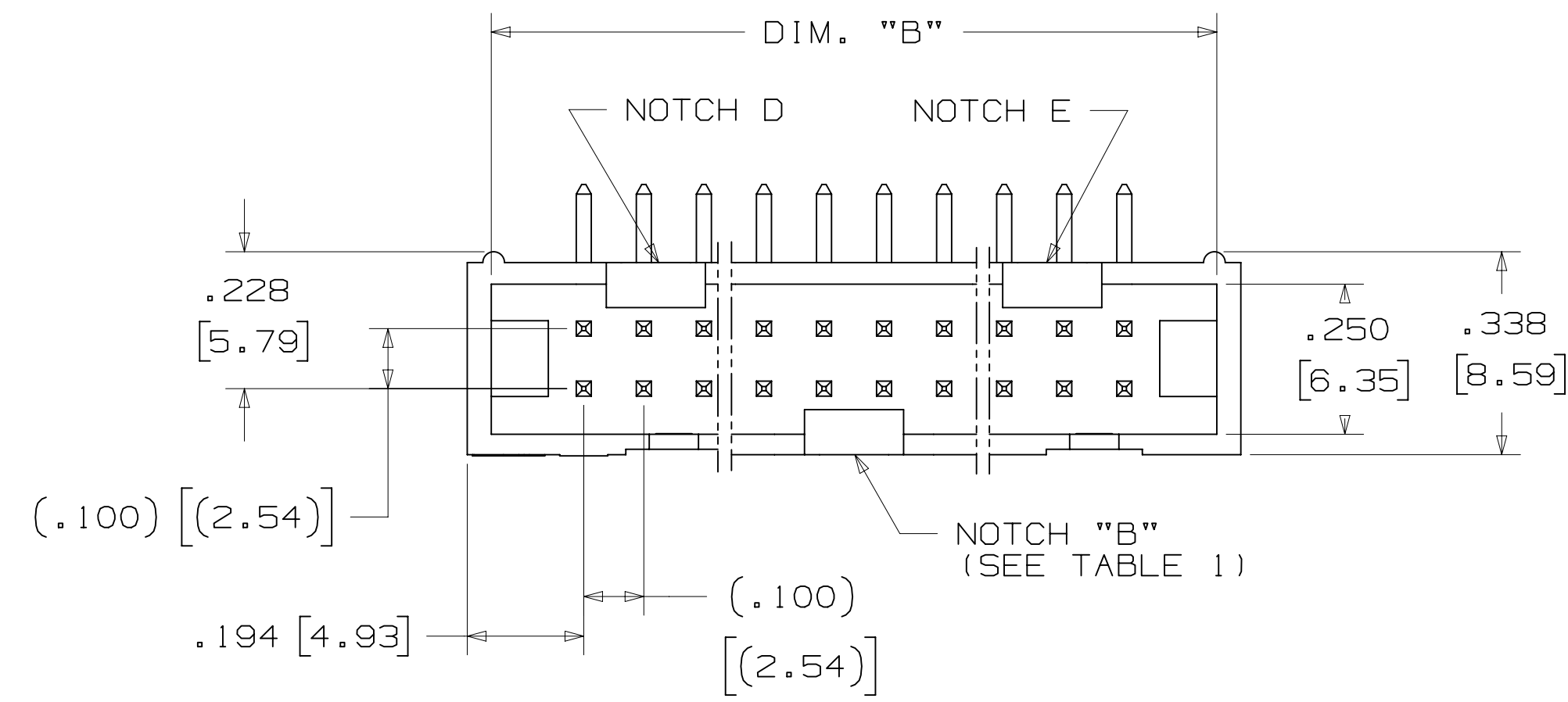
N = HIGH TEMP BLACK (PCT)
 (RB, UB OR UG PLATING REQ'D)
 BLANK = (UB OR UG PLATING)

PIN QUANTITY:
 (SEE TABLE 1)

SOLDER TAIL:
 O2 = FOR .062 [1.57] THICK BOARD
 O3 = FOR .094 TO .125 [2.39 TO 3.18]
 THICK BOARD

PLATING:

RB = 30μ [0.76μ] AVG. GOLD
 200μ [5.08μ] MATTE TIN (RIA, E1 & C1 APPLY)
 UG = 15μ [0.38μ] AVG. GOLD
 200μ [5.08μ] 60:40 TIN-LEAD SOLDER TAILS
 (RIA E3 & C2 APPLY)
 UB = 30μ [0.76μ] AVG. GOLD
 200μ [5.08μ] 60:40 TIN LEAD SOLDER TAILS
 (RIA E3 & C2 APPLY)



RECOMMENDED HOLE PATTERN SHOWN FROM COMPONENT SIDE

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DATE	DATE	DATE	DATE	DATE	DATE	DATE
DIVISION	DIVISION CODE	© 3M COPYR[IGHT] 2016 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.				
Interconnect Solutions	EMSD	3M Center St. Paul, MN 55144 TITLE: HEADER, 4-WALL, LO-PRO, .100 X .100, SMT, STRAIGHT & RA				
DO NOT SCALE DRAWING	SCALE: 4/1	TOLERANCES EXCEPT AS NOTED: INCHES: .00 ± .01, .000 ± .005, .0000 ± .0001 MILLIMETERS: 0 ± .03, .00 ± .13, .000 ± .001				
THIRD ANGLE PROJECTION	INTERPRET PER ASME Y14.5 - 2009	CAGE NUMBER	SIZE	DRAWING NO.	REV.	
MAX SURFACE ROUGHNESS	MARKED SURFACES	D	78-5100-0770-7	N		
		MODEL	2500 SERIES	DET	ISTS	YES X NO
				SHT	3	OF 5

3M™ FOUR-WALL HEADER, 2500 SERIES

.100" X .100" LOW PROFILE, SURFACE MOUNT, STRAIGHT AND RIGHT ANGLE THROUGH-HOLE



SECTION C - C

TABLE 1					
PIN QTY.	DIM. "A"	DIM. "B"	POLARIZING NOTCHES	TAPE AND REEL PKG CODE	PIN QTY.
06	.588 [14.94]	.508 [12.90]	B	WD (44 MM)	06
08	.688 [17.48]	.608 [15.44]	B	WD (44 MM)	08
10	.788 [20.02]	.708 [17.98]	BC	WD (44 MM)	10
14	.988 [25.10]	.908 [23.06]	BCDE	WD (44 MM)	14
16	1.088 [27.64]	1.008 [25.60]	ABCDE	WD (44 MM)	16
20	1.288 [32.72]	1.208 [30.68]	ABCDE	WE (56 MM)	20
24	1.488 [37.80]	1.408 [35.76]	ABCDE	WE (56 MM)	24
26	1.588 [40.34]	1.508 [38.30]	ABCDE	WE (56 MM)	26
30	1.788 [45.42]	1.708 [43.38]	ABCDE	WF (72 MM)	30
34	1.988 [50.50]	1.908 [48.46]	ABCDE	WF (72 MM)	34
36	2.088 [53.04]	2.008 [51.00]	ABCDE	WG (88 MM)	36
40	2.288 [58.12]	2.208 [56.08]	ABCDE	WG (88 MM)	40
50	2.788 [70.82]	2.708 [68.78]	ABCDE	WG (88 MM)	50
60	3.288 [83.52]	3.208 [81.48]	ABCDE	WH (120 MM)	60
64	3.488 [88.60]	3.408 [86.56]	ABCDE	WH (120 MM)	64



RECOMMENDED PAD LAYOUT

ORDERING INFORMATION SURFACE MOUNT VERSION

N25XX-6VOC-XX-XX

N = HIGH TEMP BLACK (PCT) (RB PLATING REQ'D)

PIN QUANTITY: (SEE TABLE 1)

PACKAGING OPTIONS:
WX = TAPE & REEL PACKAGING (SEE TABLE 1)

PLATING:
RB = 30µ" [0.76µm] AVG. GOLD
200µ" [5.08µm] MATTE TIN (RIA, E1 & C1 APPLY)

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
				AUG 11, 2014		
DIVISION: Interconnect Solutions		DIVISION CODE: EMSD		DATE: AUG 11, 2014		
DO NOT SCALE DRAWING		SCALE: 4/1		TOLERANCES EXCEPT AS NOTED		
THIRD ANGLE PROJECTION		INCHES: .00 ± .01, .000 ± .005, .0000 ±		MILLIMETERS: 0 ±, .0 ± .3, .00 ± .13, .000 ±		
MAX SURFACE ROUGHNESS: SURFACES		MARKED ONLY		CAGE NUMBER: D78-5100-0770-7		
				MODEL: 2500 SERIES		
				REV. N		

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3M Center St. Paul, MN 55144

HEADER, 4-WALL, LO-PRO, .100 X .100, SMT, STRAIGHT & RA

REV. N

SEP 05, 2014

SHT 4 OF 5

DRAWING NUMBER: 78-5100-0770-7

REVISION: N

DATE: AUG 11, 2014

DRAWN: R. SCHERER

CHECKED: R. SCHERER

DATE: SEP 05, 2014

CAGE NUMBER: D78-5100-0770-7

MODEL: 2500 SERIES

REV. N

SHT 4 OF 5

3M™ FOUR-WALL HEADER, 2500 SERIES
 .100" X .100" LOW PROFILE, SURFACE MOUNT, STRAIGHT AND RIGHT ANGLE THROUGH-HOLE

PART CUSTOMIZATION

THIS SPEC SHEET DETAILS OUR STANDARD OFFERING.
 3M HAS SEVERAL CAPABILITIES THAT CAN PROVIDE A PART TAILORED TO YOUR SPECIFIC NEEDS. ASK YOUR 3M SALES REPRESENTATIVE OR CUSTOMER SERVICE FOR MORE DETAILS.
 * SELECTIVE PIN REMOVAL (FOR BOARD ASSEMBLY POLARIZATION).
 * DIFFERENT PIN LENGTHS.

LOW PROFILE LATCH



PART NO.	MATERIAL	COLOR
3505-33B	NYLON	BLACK

NOTE:
 LATCHES NOT COMPATIBLE WITH REFLOW SOLDERING.
 ATTACH LATCHES AFTER SOLDERING.

POLARIZING POST



PART NO.	MATERIAL	COLOR
3201-3	PCT	BLACK

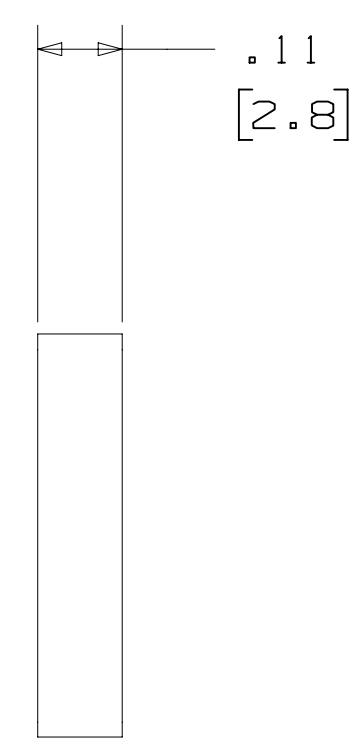
POLARIZING KEY



3M PART NO.	MATERIAL	COLOR	DIM. "A"
N3518	LCP	BLACK	.02

NOTE:
 #2216 B/A SCOTCHWELD CAN BE USED TO ADHERE KEYS.

SHORT/LONG SOCKET RETAINER CLIP



PIN QTY.	DIM. "A"
06	N/A
08	N/A
10	.81 [20.6]
14	1.02 [25.9]
16	1.12 [28.4]
20	1.32 [33.5]
24	1.52 [38.7]
26	1.63 [41.4]
30	1.83 [46.4]
34	2.03 [51.6]
36	N/A
40	2.33 [59.2]
50	2.83 [71.9]
60	3.33 [84.6]
64	3.53 [89.7]

NOTE:
 STAINLESS STEEL WITH GRAY POLYURETHANE COATING.

3505-8XXX
 CLIP HEIGHT CODE _____ PIN COUNT (SEE TABLE)
 0 = .31 [7.9] FOR SOCKETS WITHOUT STRAIN RELIEF
 1 = .53 [13.5] FOR SOCKETS WITH STRAIN RELIEF

NOTE:
 1) THE FOLLOWING RETAINER CLIPS HAVE BEEN DISCONTINUED:
 3505-8064
 3505-8124
 3505-8150

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
				AUG 02, 2016	JNC	SC
				REVISE DIM ON SHT2 & CLIP CHART ON SHT5		
				AUG 11, 2014	JNC	RS
				REVISED AND REDRAWN		
				AUG 11, 2014		
				R. SCHERER		SEP 05, 2014
DIVISION: Interconnect Solutions SCALE: 4/1 DO NOT SCALE DRAWING TOLERANCES EXCEPT AS NOTED INCHES: .00 ± .01, .000 ± .005, .0000 ± MILLIMETERS: 0 ± .3, .00 ± .13 MAX SURFACE ROUGHNESS: SURFACES MARKED ONLY		DIVISION CODE: EMSD TOLERANCES EXCEPT AS NOTED INCHES: .00 ± .01, .000 ± .005, .0000 ± MILLIMETERS: 0 ± .3, .00 ± .13 MAX SURFACE ROUGHNESS: SURFACES MARKED ONLY		3M Center St. Paul, MN 55144 © 3M COPYRIGHT 2016 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: HEADER, 4-WALL, LO-PRO, .100 X .100, SMT, STRAIGHT & RA CAGE NUMBER: D78-5100-0770-7 MODEL: 2500 SERIES SHEET: 5 OF 5		

78-5100-0770-7
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 REVISION
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 8/5/2016