

REV. A	SHEET 1 OF 5	DOCUMENT NO. HSB-M4-XXDXXXXX
REVISIONS		
LTR	DESCRIPTION	DATE
A	INITIAL RELEASE	11/15/2007

HSB-M4-XXDXXXXX

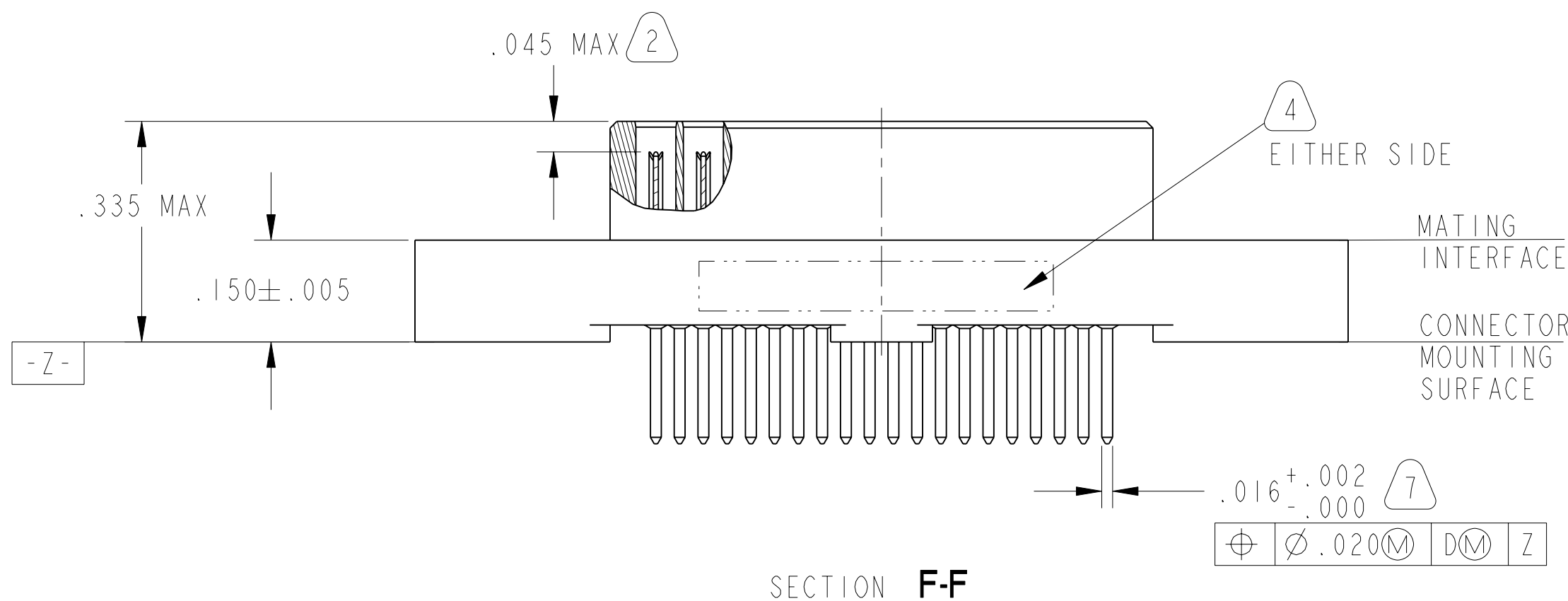
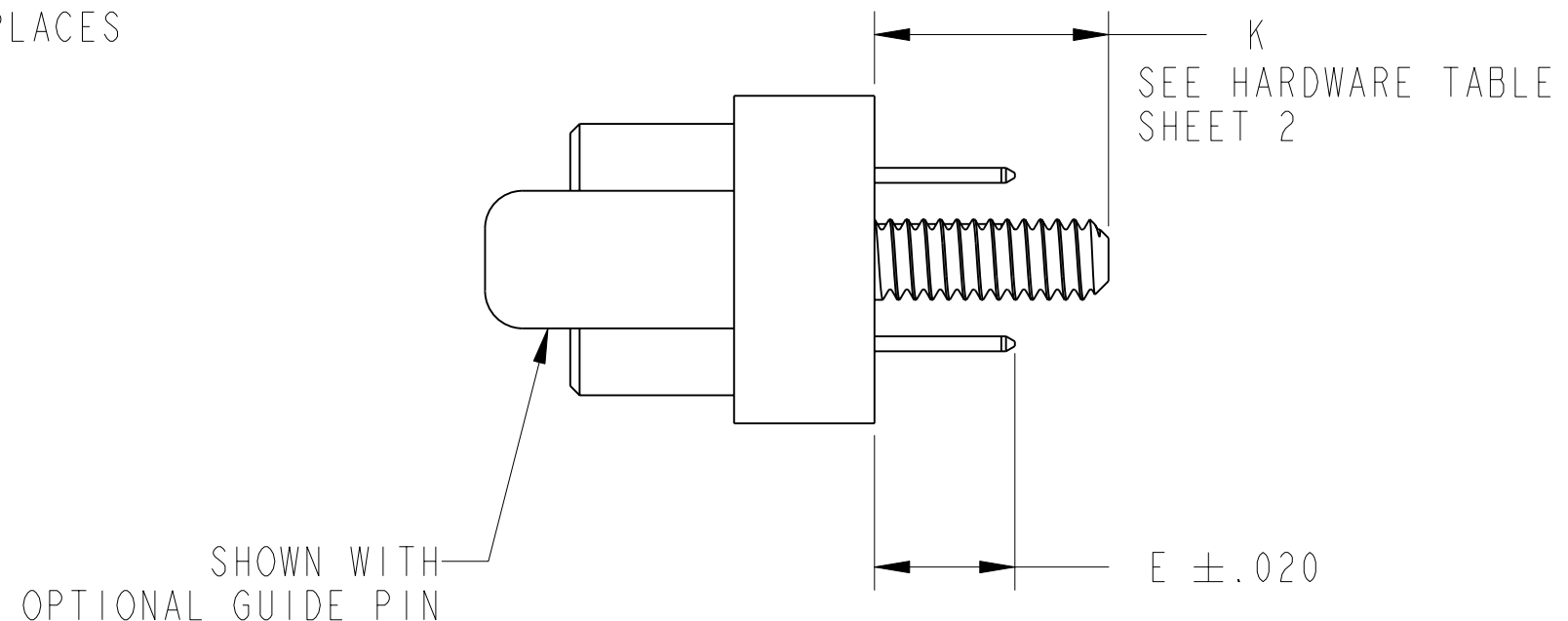
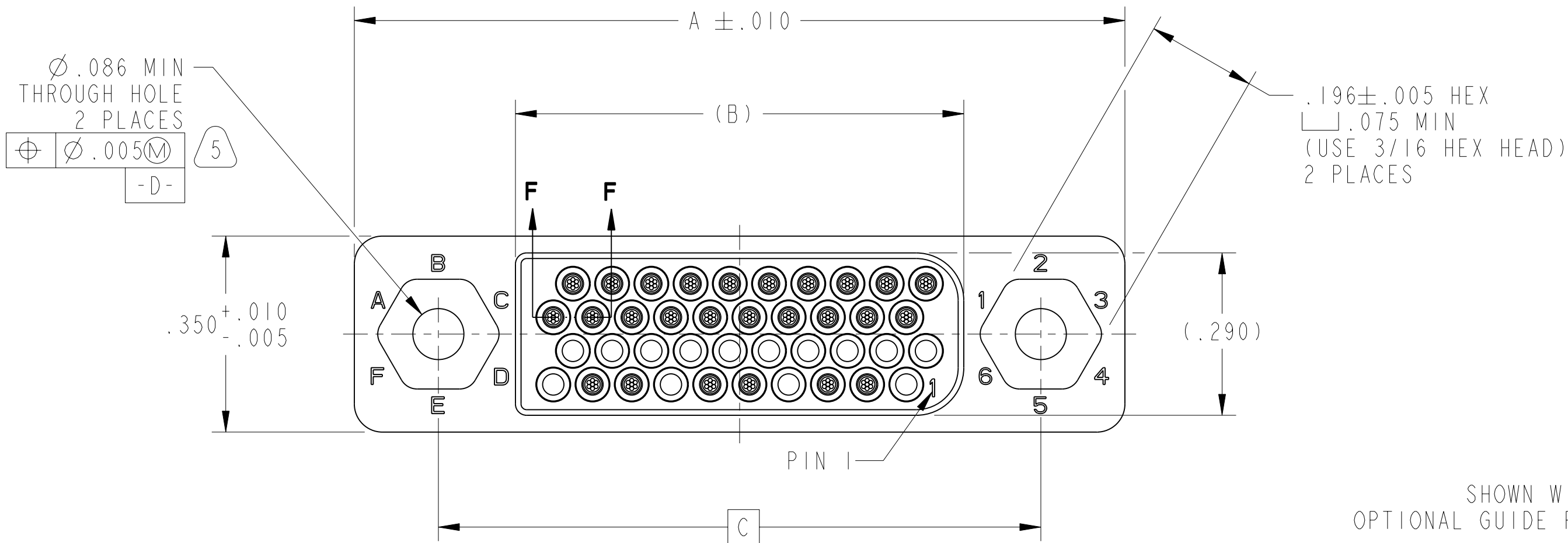
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C

B

A



NOTES:

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N/A NEXT ASSEMBLY

PRO/ENGINEER INFORMATION Pro/e Model Used: HSB-M4-XXDXXXXX.ASSEM Drawing Name: HSB-M4-XXDXXXXX

UNLESS OTHERWISE SPECIFIED	SPECIFICATIONS	POS	QTY	PART NUMBER	DESCRIPTION	NOTE
LINEAR DIMENSIONS ARE IN INCHES TOLERANCES: .XXXX = ±.0005 ANGLES= ±2° .XXX = ±.010 .XX = ±.03 .X = ±.1 DIM. & TOL. PER ASME Y14.5M; DRM PER MIL-DTL-31000; OTHER Amphenol Stds. PER 9-3800 LEGENDS: =FLAG NOTE CALL OUT REFERENCE ONLY	MATERIAL SPEC.	PARTS LIST				
	N/A	AMPHENOL CORPORATION 40-60 DELAWARE AVENUE SIDNEY, N.Y. 13858 3 DIFFERENTIAL PAIR W/ 20 BRUSH MOTHER BOARD CONNECTOR HSB3 SERIES				
PROCESS SPEC.	9-3895 9-3856-5	APPROVALS		DATE	SIZE C CAGE CODE 77820 DOCUMENT NO. HSB-M4-XXDXXXXX REV. A SCALE: 5.0 REF. HDB-M4-XXXXXXX SHEET 1 OF 5	
		THIRD ANGLE PROJECTION				

FORMAT: C-U-E-I

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HSB-M4-XXD X XX X X

EXAMPLE: HSB-M4-03D M 20 2 X

CONTACT TERMINATION FINISH	
2	GOLD PLATED IN ACCORDANCE WITH MIL-G-45204, TYPE II, .000030 MIN THICK GOLD OVER .000050 MIN THICK NICKEL
5	TIN PLATED IN ACCORDANCE WITH ASTM B545, .00010 MIN THICK MATTE TIN OVER .00010 MIN THICK NICKEL. 6
6	TIN-LEAD PLATED IN ACCORDANCE WITH SAE-AMS-P-81728, .00010 MIN THICK TIN-LEAD OVER .00010 MIN THICK COPPER.

TERMINATION		
	TYPE	STICKOUT (DIM E)
20	PCB, STRAIGHT, .016 DIA.	.060
21	PCB, STRAIGHT, .016 DIA.	.090
22	PCB, STRAIGHT, .016 DIA.	.120
23	PCB, STRAIGHT, .016 DIA.	.150
24	PCB, STRAIGHT, .016 DIA.	.180
25	PCB, STRAIGHT, .016 DIA.	.210
26	PCB, STRAIGHT, .016 DIA.	.240
27	PCB, STRAIGHT, .016 DIA.	.270
28	PCB, STRAIGHT, .016 DIA.	.300
29	PCB, STRAIGHT, .016 DIA.	.360
30	PCB, STRAIGHT, .016 DIA.	.420

BRUSH WIRE PLATING (CONTACT INTERFACE)	
M	0.000050 Au MIN THK OVER NICKEL
C	0.000020 Au MIN THK OVER NICKEL

DIFFERENTIAL SIGNAL

CONNECTOR DIMENSIONS				
NUMBER DIFF SIGNALS	NUMBER OF CONTACTS	DIMENSION A	DIMENSION B	DIMENSION C
03	26	1.375	.800	1.075
07	54	2.075	1.500	1.775
10	80	2.775	2.200	2.475
13	106	3.475	2.900	3.175

HIGHSPEED/HIGH DENSITY BRUSH

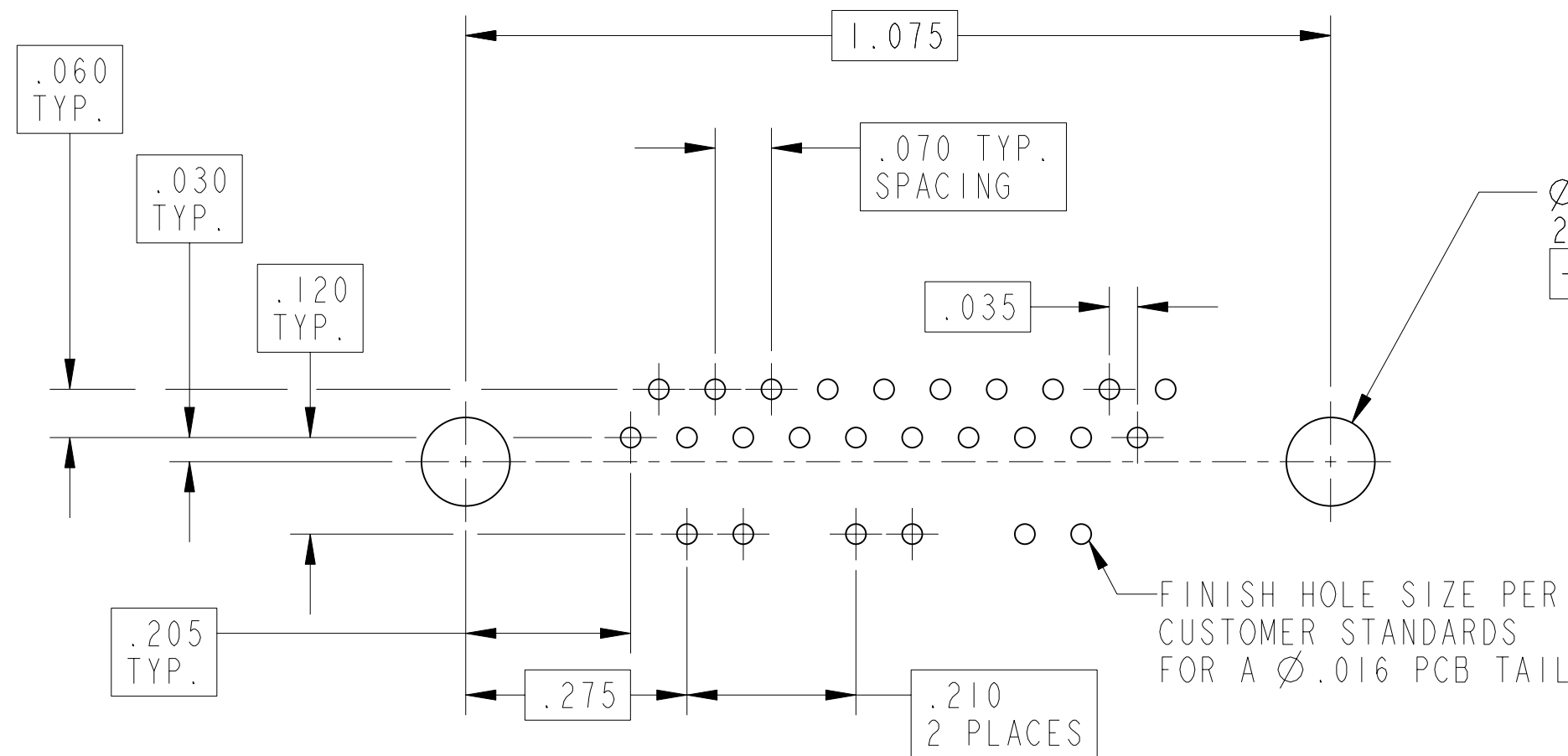
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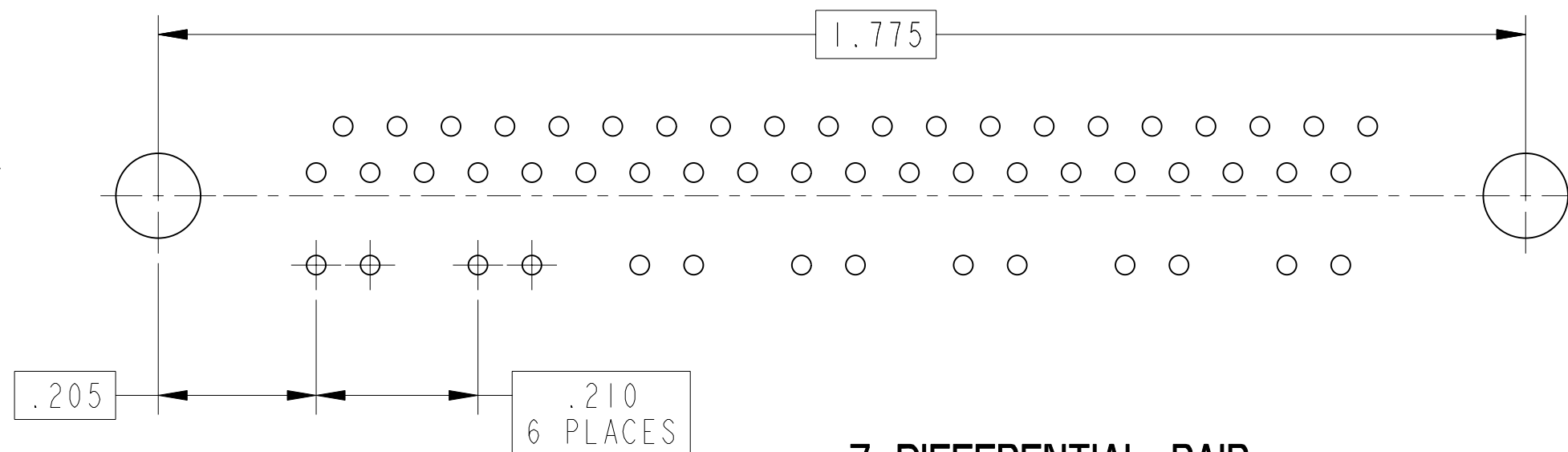
HARDWARE (SUPPLIED UNASSEMBLED)		
	TYPE	STICKOUT (DIM. K)
X	NO HARDWARE	N/A
G	POLARIZATION KEY (QTY 2)	.250
H	POLARIZATION KEY (QTY 2)	.500
J	POLARIZATION KEY (QTY 2)	.750
T	GUIDE PIN (QTY 2)	.250
U	GUIDE PIN (QTY 2)	.500
V	GUIDE PIN (QTY 2)	.750
W	GUIDE PIN (QTY 2)	.200

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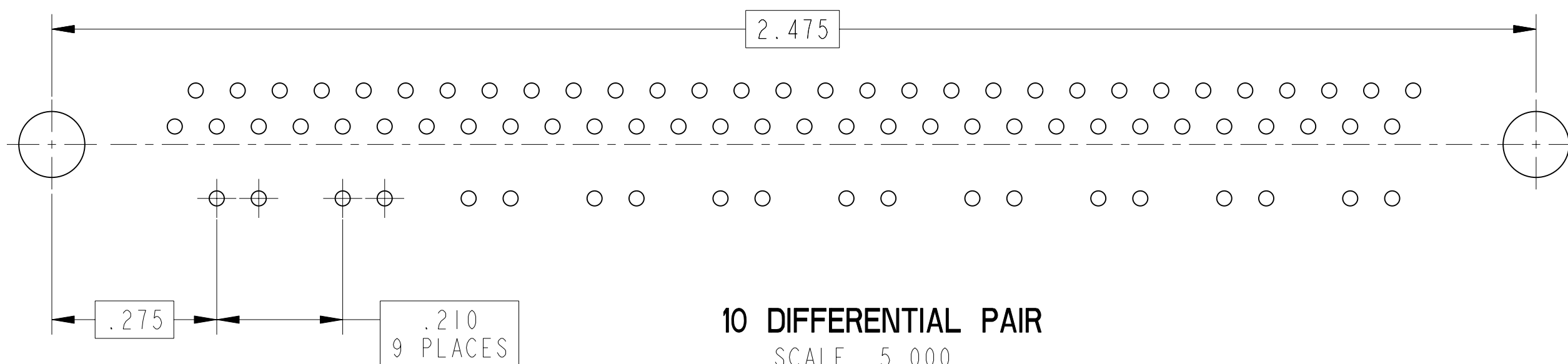
SUGGESTED MOTHER BOARD LAYOUT FOR 3, 7, 10 AND 13 DIFFERENTIAL PAIR. COMPONENT SIDE



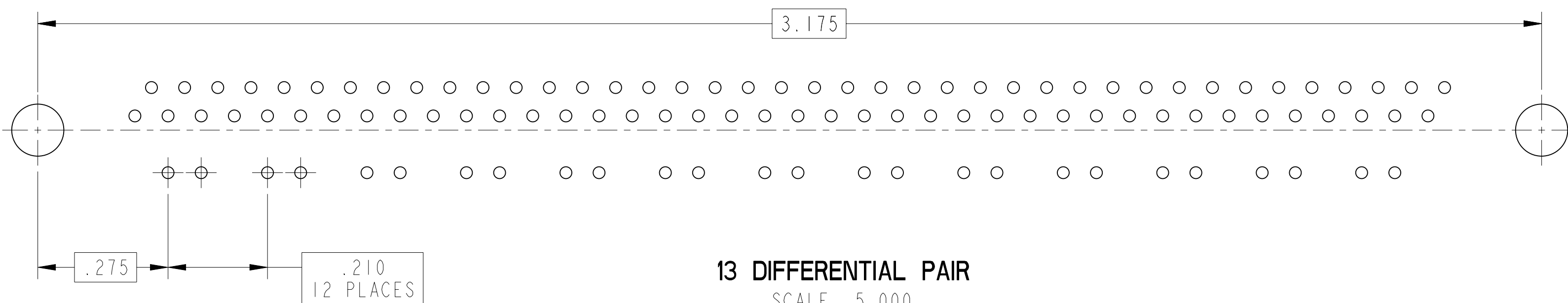
3 DIFFERENTIAL PAIR
SCALE 5.000



7 DIFFERENTIAL PAIR
SCALE 5.000



10 DIFFERENTIAL PAIR
SCALE 5.000



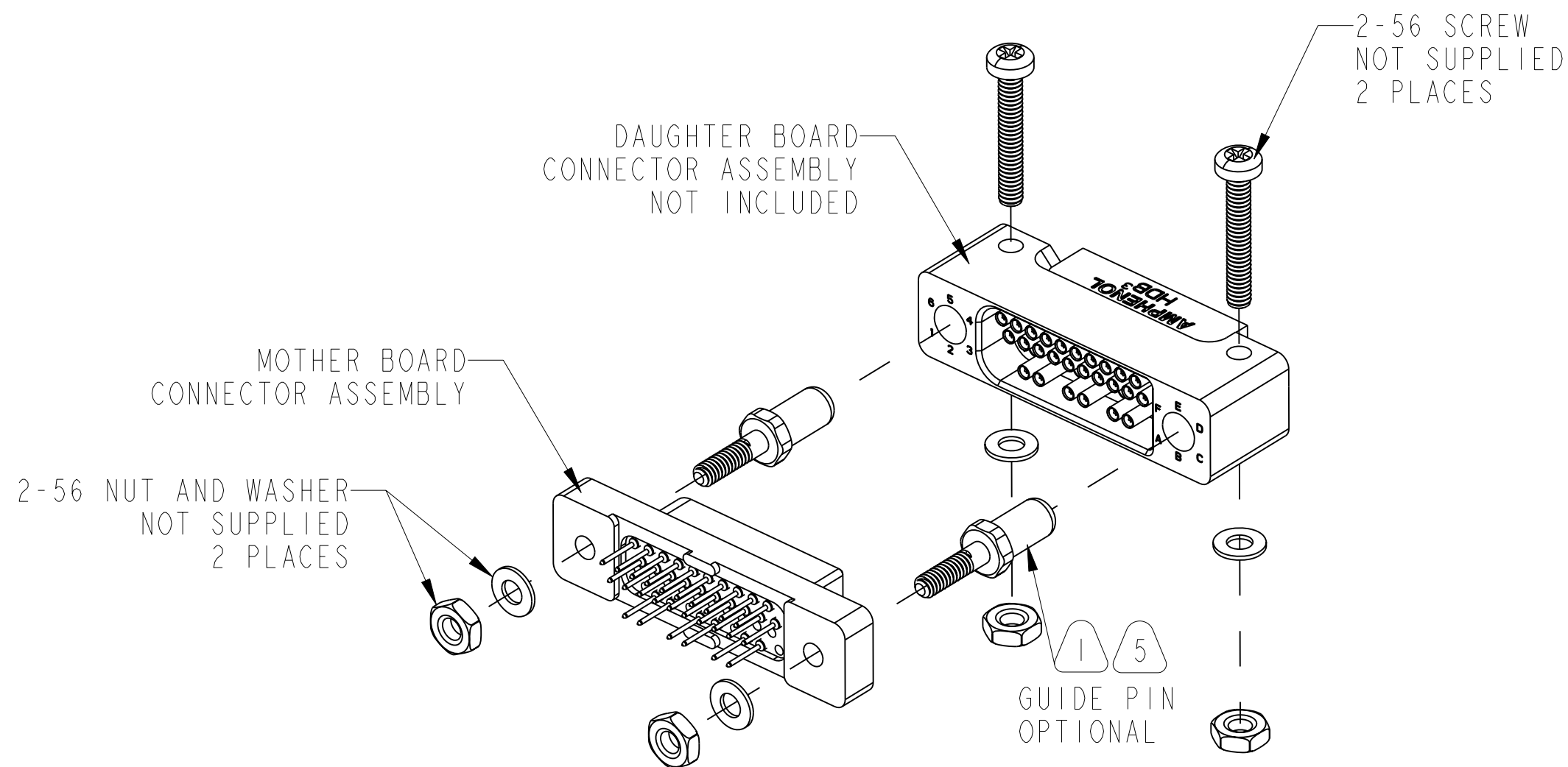
13 DIFFERENTIAL PAIR
SCALE 5.000

NOTES:

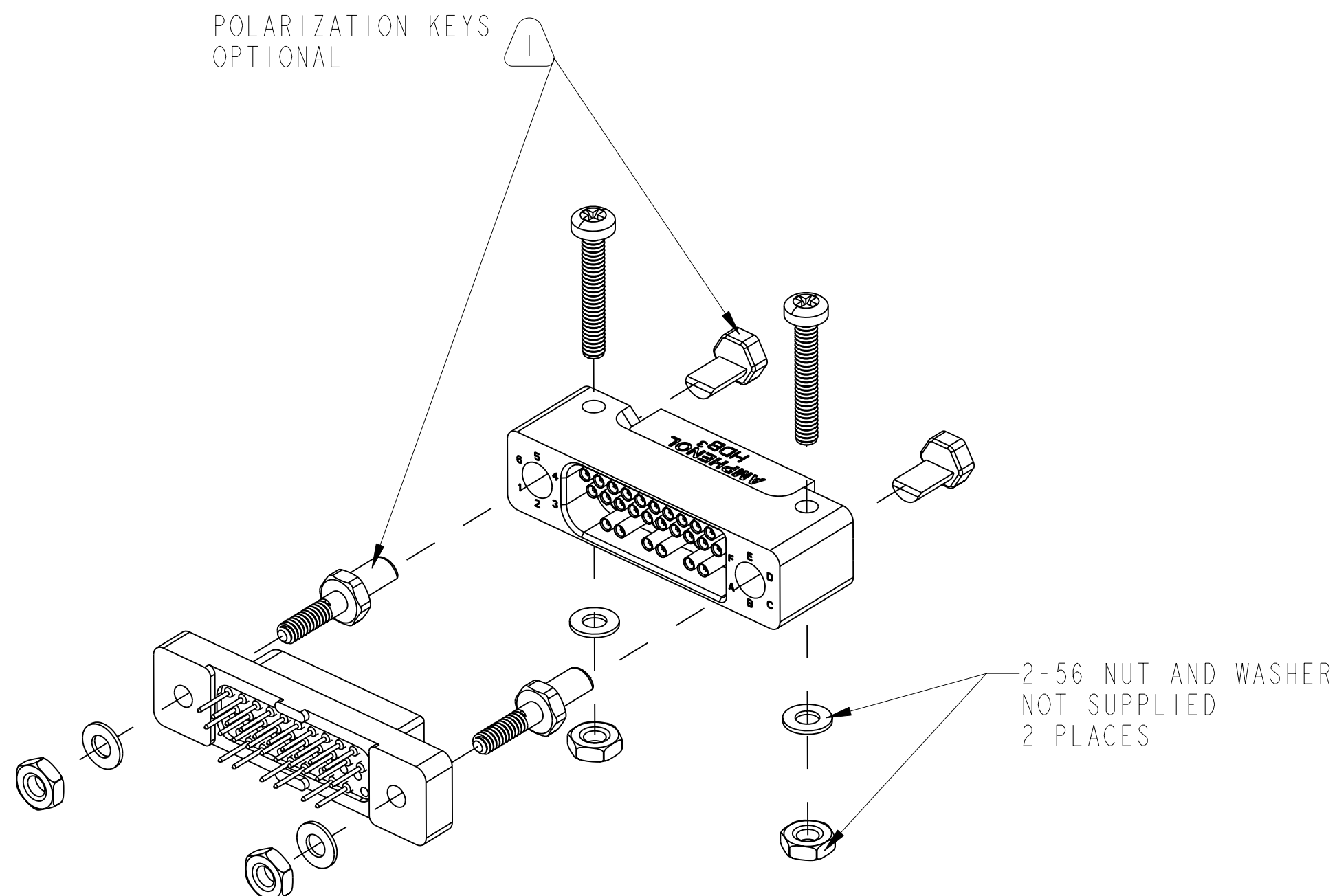
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EXPLODED ISOMETRIC VIEW SHOWN WITH OPTIONAL GUIDE PIN



EXPLODED ISOMETRIC VIEW SHOWN WITH OPTIONAL KEYING

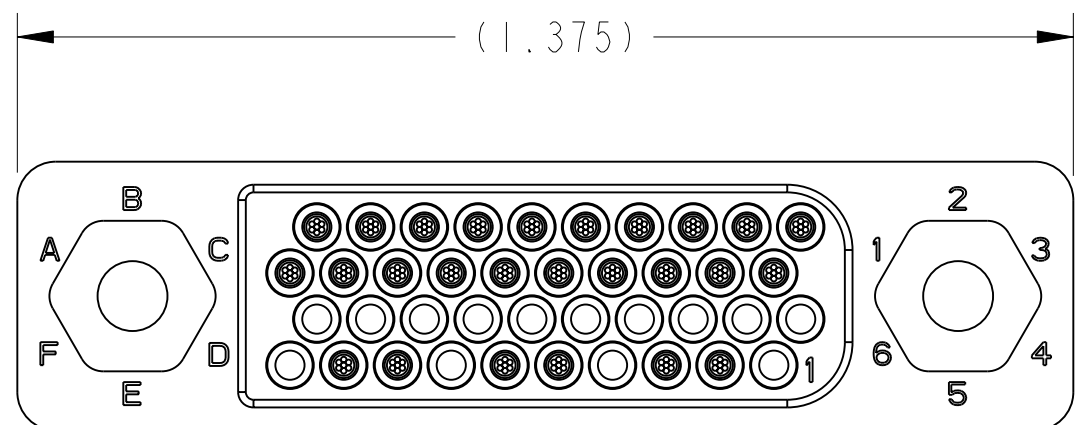
- 7. CONTACT ASSEMBLIES ARE NON-REPLACEABLE.
- 6. RoHS COMPLIANT FOR TERMINATION FINISH TIN PLATE OVER NICKEL.
- 5. WHEN NOT USING OPTIONAL GUIDE PIN OR POLARIZATION KEYS USE A 2-56 HEX HEAD SCREW FOR MOUNTING. (NOT SUPPLIED)
- 4. INK STAMP "AMPHENOL" 77820, PART NUMBER AND DATE CODE ON INDICATED SURFACE PER 9-3856-5. DATE CODE PER 9-3895, CHARACTERS TO BE .062 ±.020 HIGH.
- 3. FOR MATING DAUGHTER CONNECTOR ASSEMBLY SEE DRAWING HSB-D4-XXDXXXXX.
- 2. INDICATED DIMENSION IS TO POINT OF MINIMUM ELECTRICAL ENGAGEMENT.
- 1. POLARIZATION KEYS OR GUIDE PINS ARE OPTIONAL. WHEN USING, A QUANTITY OF 2 ARE REQUIRED PER CONNECTOR. (WHEN USING KEYS, MATING CONNECTOR MUST ALSO USE KEYS.)

NOTES:

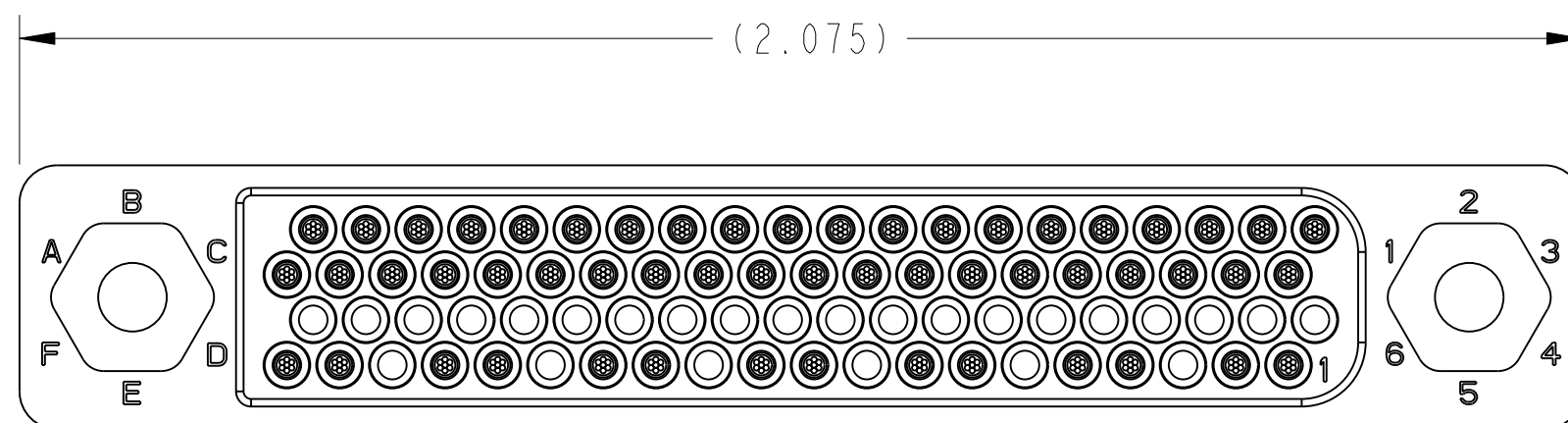
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REPLACEMENT KEYS/GUIDE PINS			
HW ID	TYPE	STICKOUT (DIM K)	PART NUMBER
G	POLARIZATION KEY (QTY 2)	.250	HDB-508803-001
H	POLARIZATION KEY (QTY 2)	.500	HDB-508803-002
J	POLARIZATION KEY (QTY 2)	.750	HDB-508803-003
T	GUIDE PIN (QTY 2)	.250	HDB-508802-001
U	GUIDE PIN (QTY 2)	.500	HDB-508802-002
V	GUIDE PIN (QTY 2)	.750	HDB-508802-003
W	GUIDE PIN (QTY 2)	.200	HDB-508802-004

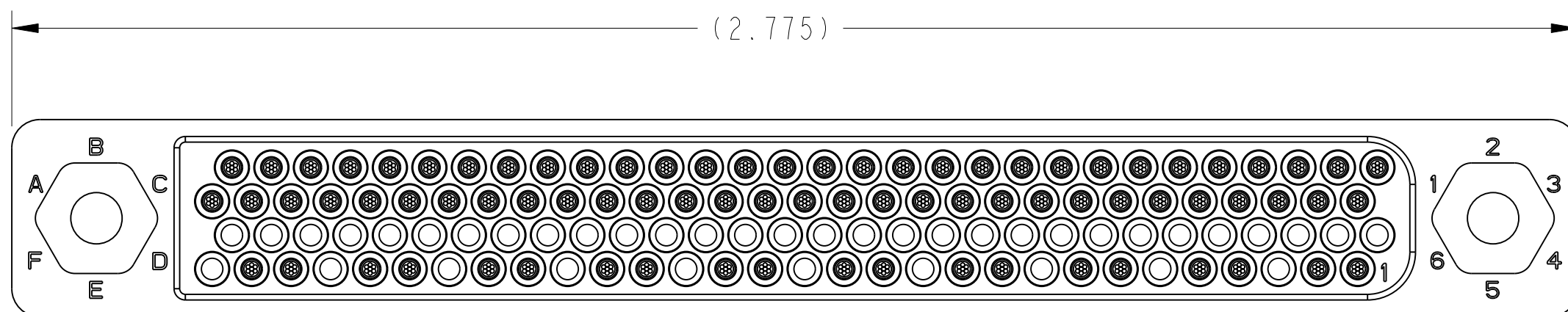
SIZE C	CAGE CODE 77820	DOCUMENT NO. HSB-M4-XXDXXXXX	REV. A
SCALE: 1.0		REF: HDB-M4-XXXXXXX	SHEET 4 OF 5



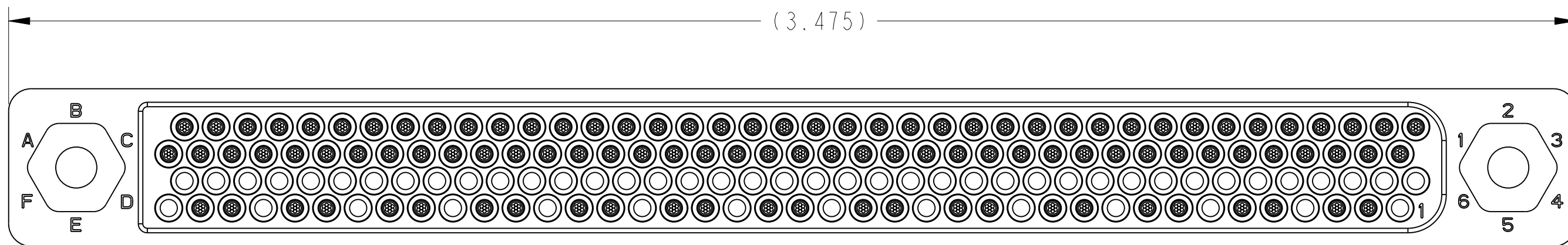
3 DIFFERENTIAL PAIR
SCALE 4.000



7 DIFFERENTIAL PAIR
SCALE 4.000



10 DIFFERENTIAL PAIR
SCALE 4.000



13 DIFFERENTIAL PAIR
SCALE 4.000

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SIZE	CAGE CODE	DOCUMENT NO.	REV.
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 RELEASE STATE: Released
 REVISION: A
 VERSION: 6