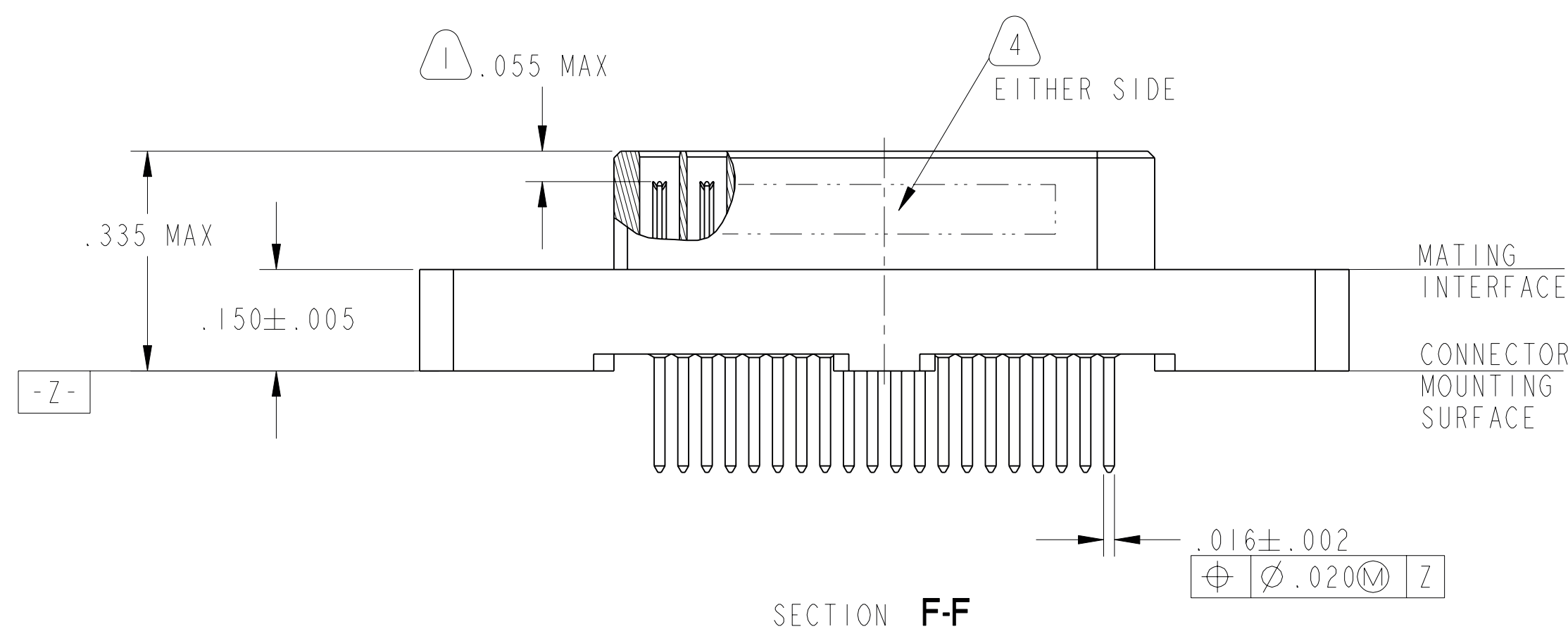
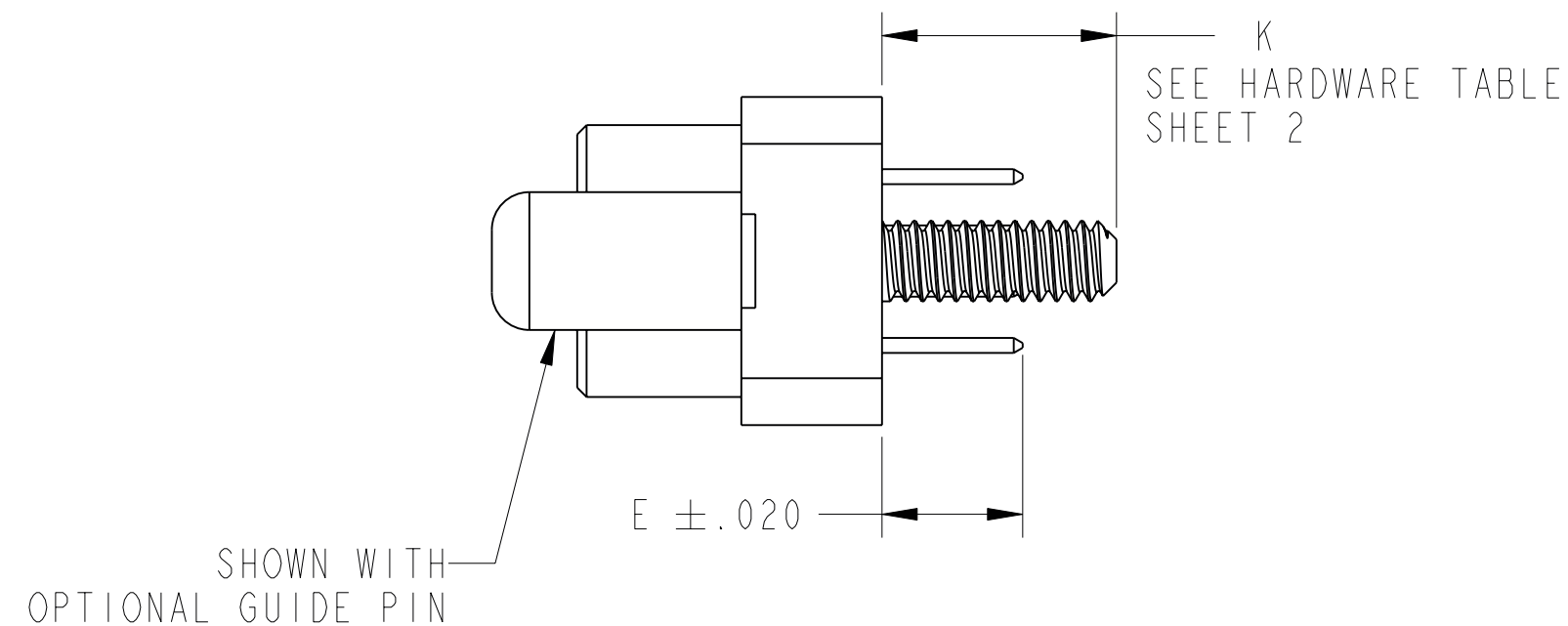
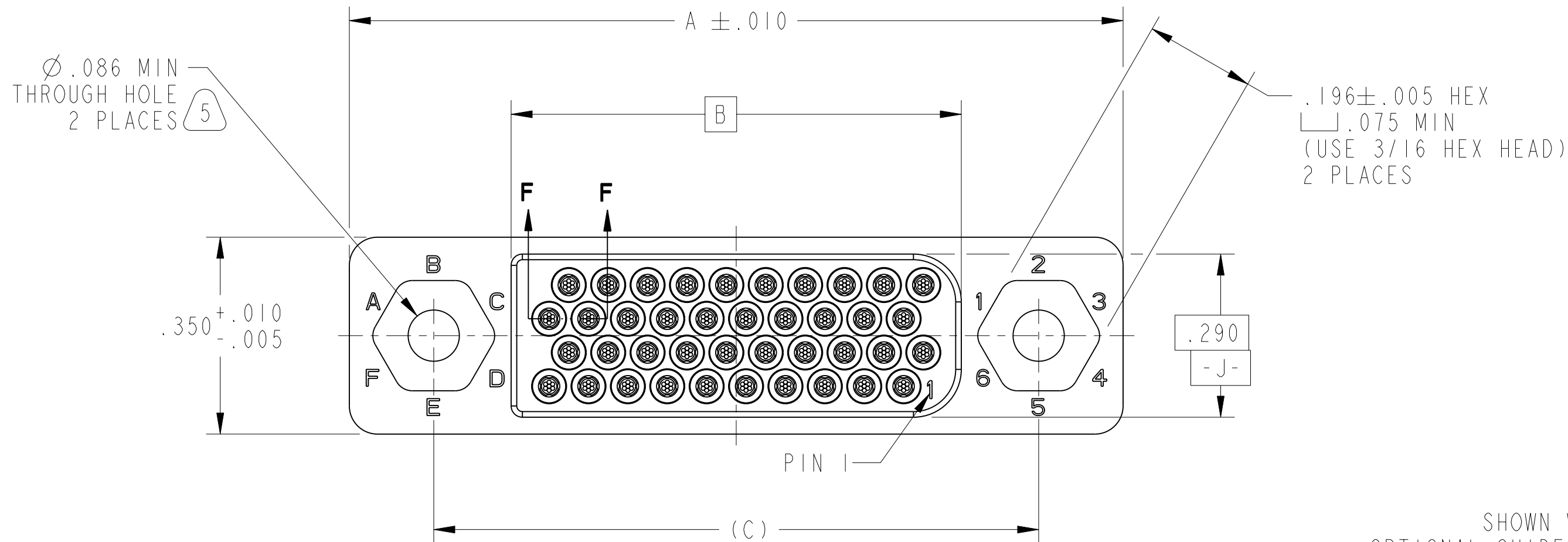


C		SHEET 1 OF 5		HDB-M4-XXXXXXX	
REVISIONS					
LTR	DESCRIPTION			DATE	
A	INITIAL RELEASE			08/08/2007	
B	CL(11) SEE CHANGE NOTICE ECNA4197-0000			12/14/2007 DM	
C	CL(11) SEE CHANGE NOTICE ECN: A7953-0000			08/05/2009 D. MORSE	



**NOTES:**  
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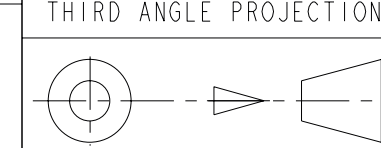
N/A NEXT ASSEMBLY

PRO/ENGINEER INFORMATION  
 Pro/e Model Used:  
 HDB-M4-XXXXXXX.WSGERINS.ASSEM  
 Drawing Name:  
 HDB-M4-XXXXXXX

UNLESS OTHERWISE SPECIFIED  
 SPECIFICATIONS  
 LINEAR DIMENSIONS ARE IN INCHES  
 TOLERANCES:  
 .XXXX =  $\pm .0005$  ANGLES =  $\pm 2^\circ$   
 .XXX =  $\pm .010$   
 .XX =  $\pm .03$   
 .X =  $\pm .1$   
 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.  
 N/A  
 PROCESS SPEC.  
 9-3895  
 9-3856-5

POS	QTY	PART NUMBER	DESCRIPTION	NOTE
MADE FROM MHDB-M4-XXXXXXX				
PARTS LIST				
<b>AMPHENOL CORPORATION</b> 40-60 DELAWARE AVENUE SIDNEY, N.Y. 13858				
<b>4 ROW MOTHER BOARD CONNECTOR HDB3 SERIES</b>				
SIZE	CAGE CODE	DOCUMENT NO.	REV.	
C	77820	HDB-M4-XXXXXXX	C	
SCALE: 8.0		REF: N/A	SHEET 1 OF 5	



# HDB-M4-XXX X XX X X

EXAMPLE: HDB-M4-040 M 22 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. <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">6</span>
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)
<del>20</del>	<del>PCB, STRAIGHT, .016 DIA.</del>	<del>.060</del>
<del>21</del>	<del>PCB, STRAIGHT, .016 DIA.</del>	<del>.090</del>
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

REMOVED  
ECN: A7953-0000

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

CONNECTOR DIMENSIONS				
	NUMBER OF CONTACTS	DIMENSION A	DIMENSION B	DIMENSION C
040	40	1.375	.800	1.075
060	60	1.725	1.150	1.425
080	80	2.075	1.500	1.775
120	120	2.775	2.200	2.475
160	160	3.475	2.900	3.175

**NOTES:**

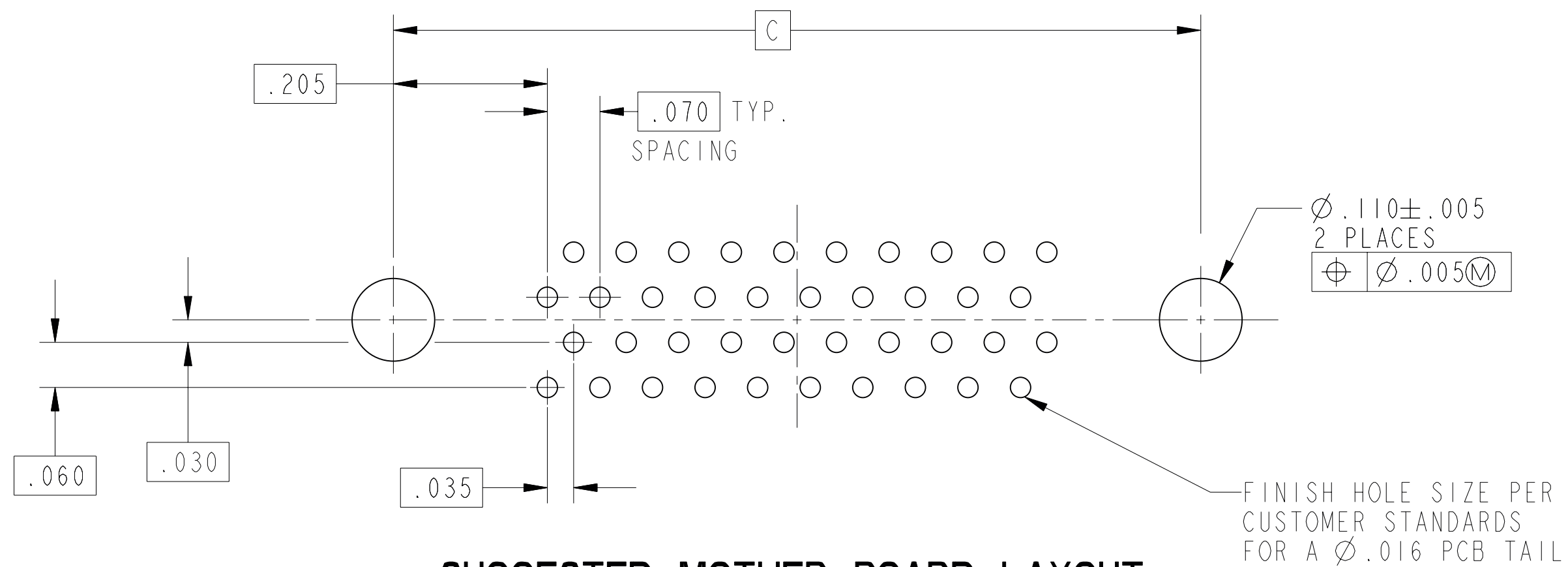
THE USE OF THIS DOCUMENT IS UNLIMITED. HOWEVER, DOCUMENTS REFERENCED HEREON MAY CONTAIN LIMITED RIGHTS DATA.

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
A	THREADED BOSS	.200
B	THREADED BOSS	.250
C	THREADED BOSS	.500
D	THREADED BOSS	.750

HDB-M4-XXXXXXXX

SHEET 3 OF 5

REV. C



### SUGGESTED MOTHER BOARD LAYOUT

SCALE 6.000

#### NOTES:

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FORMAT: C-U-E-I

DOCUMENT NO. HDB-M4-XXXXXXXX  
 SHEET 3 OF 5  
 REV. C  
 RELEASE STATE Released  
 REGION C  
 REGION 2

HDB-M4-XXXXXXXX

SHEET 4 OF 5

REV. C

B

A

- 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 HDB-D4-XXXXXXXX.
- 2. INDICATED DIMENSION IS TO POINT OF MINIMUM ELECTRICAL ENGAGEMENT.
- 1. POLARIZATION KEYS, GUIDE PINS AND THREADED BOSS 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 HARDWARE			
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
A	THREADED BOSS (QTY. 2)	.200	HDB-508808-000
B	THREADED BOSS (QTY. 2)	.250	HDB-508808-001
C	THREADED BOSS (QTY. 2)	.500	HDB-508808-002
D	THREADED BOSS (QTY. 2)	.750	HDB-508808-003

RELEASE STATE Released

REVISION C

REGION 2

REV. C

SHEET 4 OF 5

DOCUMENT NO. HDB-M4-XXXXXXXX

FORMAT: C-U-E-I

HDB-M4-XXXXXXX

SHEET 5 OF 5

REV. C

C

B

A

D

C

2

C

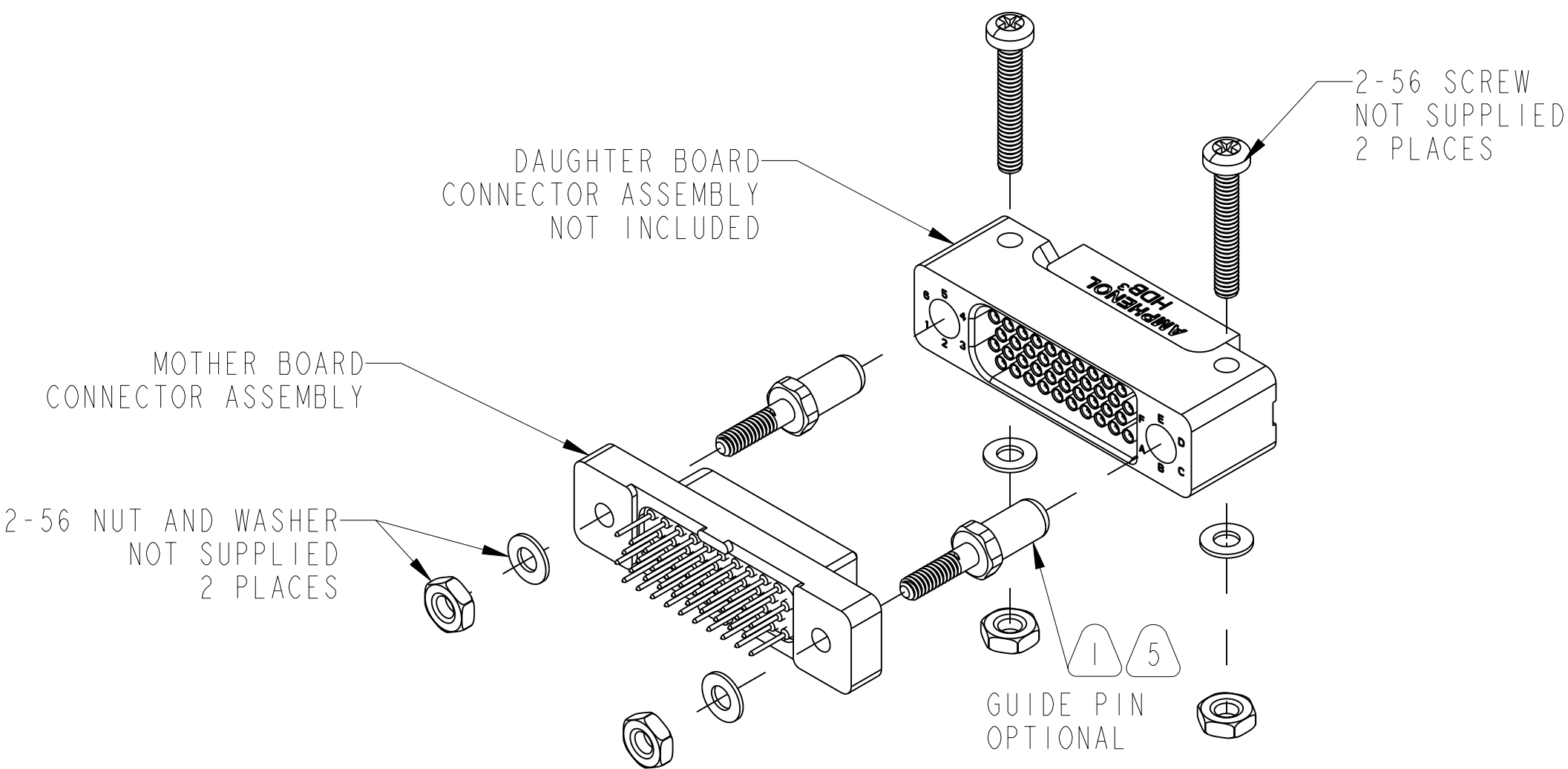
Released

REV. C

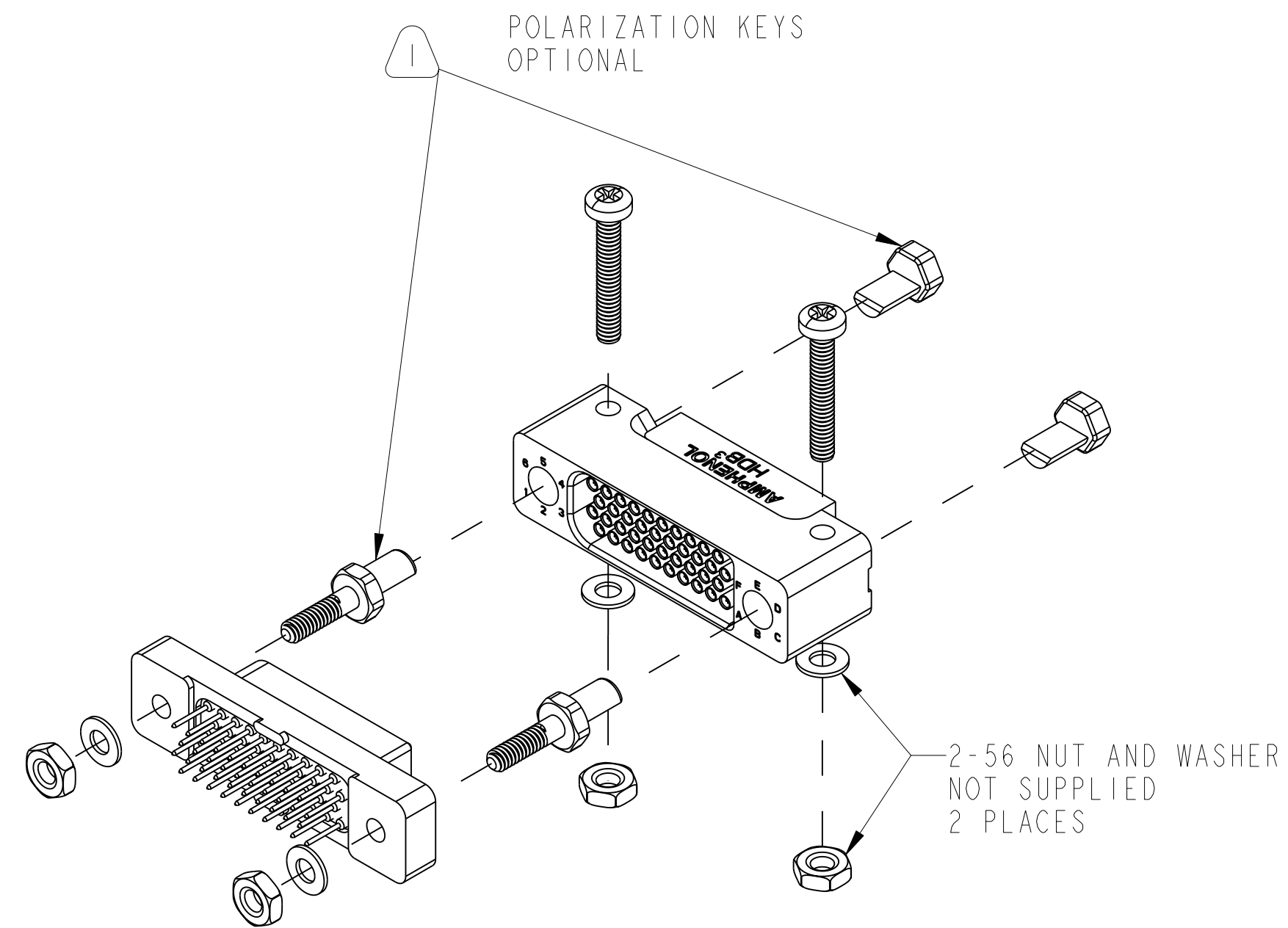
SHEET 5 OF 5

REV. C

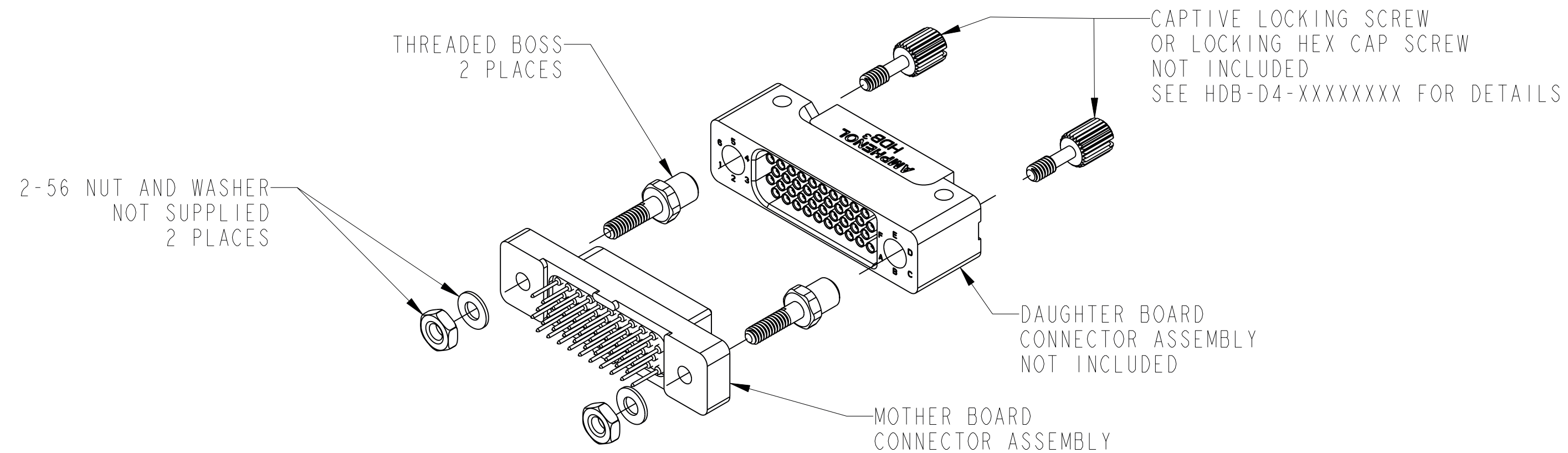
HDB-M4-XXXXXXX



EXPLODED ISOMETRIC VIEW SHOWN WITH OPTIONAL GUIDE PIN



EXPLODED ISOMETRIC VIEW SHOWN WITH OPTIONAL KEYING



EXPLODED ISOMETRIC VIEW SHOWN WITH OPTIONAL THREADED BOSS

**NOTES:**

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DOCUMENT NO. HDB-M4-XXXXXXX	SHEET 5 OF 5	REV. C
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SIZE C	CAGE CODE 77820	DOCUMENT NO. HDB-M4-XXXXXXX	REV. C
SCALE: 2.0		REF: N/A	SHEET 5 OF 5