

**AMPHENOL PART NUMBER CONFIGURATION**  
U90 - A 1 X 6 - 2 X 0 X

**HEAT SINK OPTION**

- 1 = NO HEAT SINK OR CLIP SHIPPED
- 2 = STANDARD HEAT SINK (HARD COAT ANODIZED) AND CLIP (H=6.5mm; SAN HEIGHT)
- 3 = STANDARD HEAT SINK (HARD COAT ANODIZED) AND CLIP (H=4.2mm; PCI HEIGHT)
- 4 = STANDARD HEAT SINK (HARD COAT ANODIZED) AND CLIP (H=13.5mm; TALL)
- A = STANDARD HEAT SINK (NICKEL PLATED) AND CLIP (H=6.5mm; SAN HEIGHT)
- B = STANDARD HEAT SINK (NICKEL PLATED) AND CLIP (H=4.2mm; PCI HEIGHT)
- C = STANDARD HEAT SINK (NICKEL PLATED) AND CLIP (H=13.5mm; TALL)

**NOTE:** FOR PIN STYLE HEAT SINKS REFER TO DRAWING NUMBER: P-U90-H1X1-1XXX

**PACKAGING**

- 1 = TRAY PACKAGING W/ HEAT SINK IN SEPARATE TRAY
- A = TRAY PACKAGING W/ HEAT SINK ASSEMBLED
- T = TAPE AND REEL PACKAGING W/ HEAT SINK IN SEPARATE TRAY

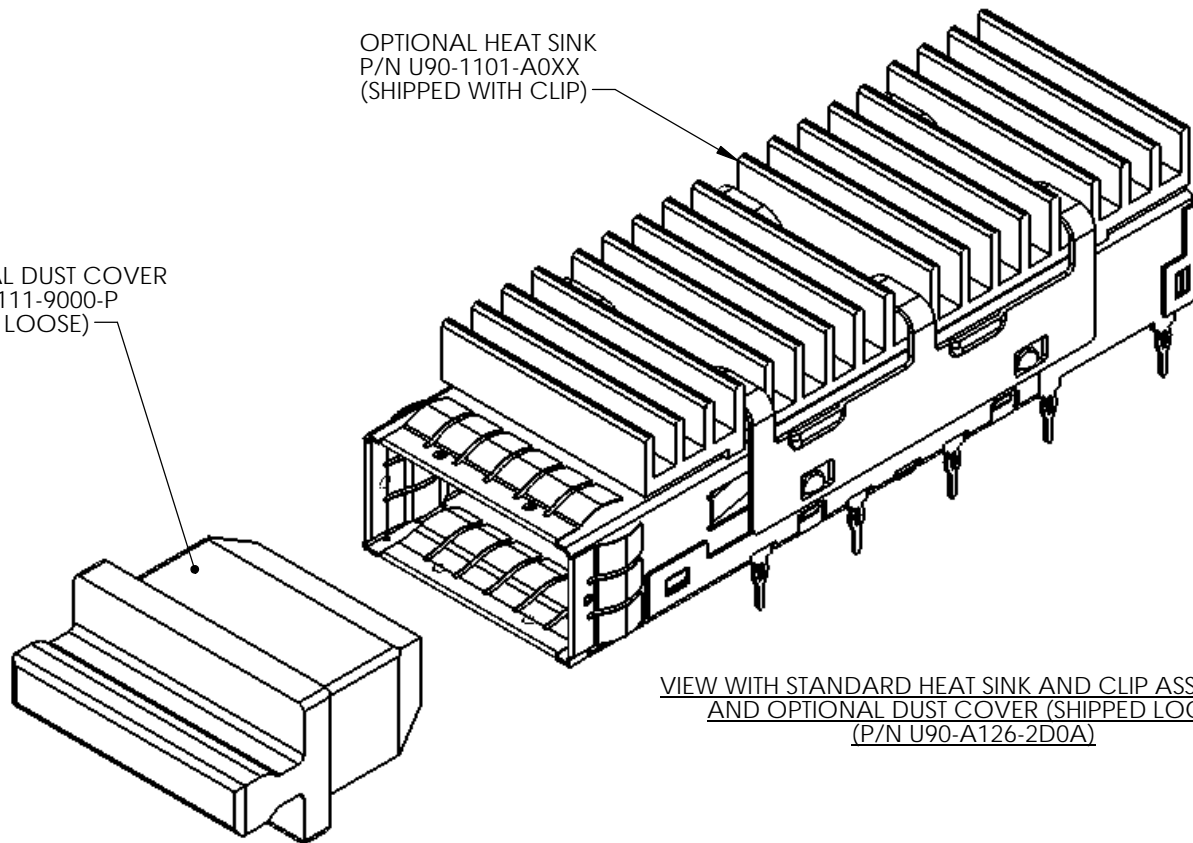
**OPTIONAL DUST COVER**

- 0 = WITHOUT DUST COVER
- D = WITH DUST COVER (SHIPPED LOOSE PIECE)

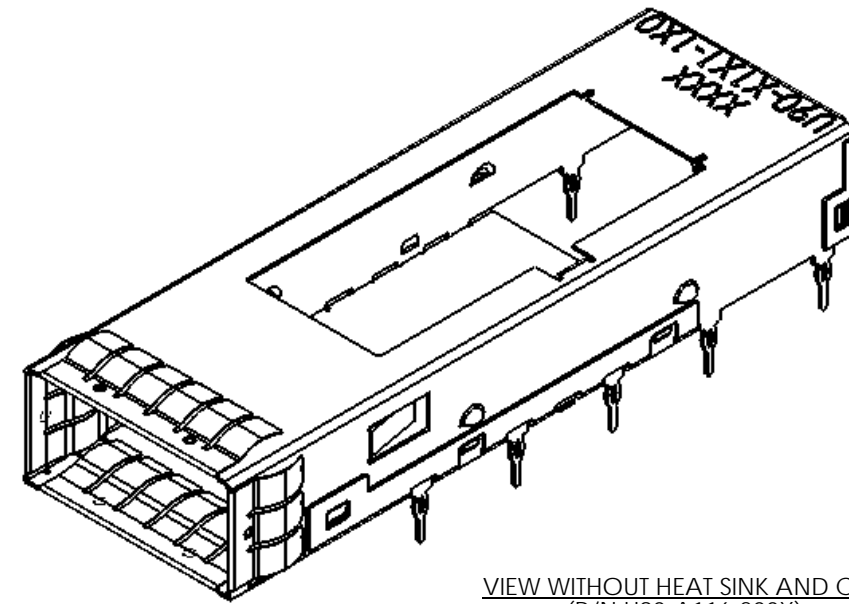
REVISIONS				
REV.	ECN	DESCRIPTION	DATE	APPROVED
A		PROPOSAL DRAWING	APR 25/11	ZLJ
A		PRESS FIT PIN INCREASED TO 4.00	AUG 13/12	ZLJ

OPTIONAL HEAT SINK  
P/N U90-1101-A0XX  
(SHIPPED WITH CLIP)

OPTIONAL DUST COVER  
P/N U79-111-9000-P  
(SHIPPED LOOSE)



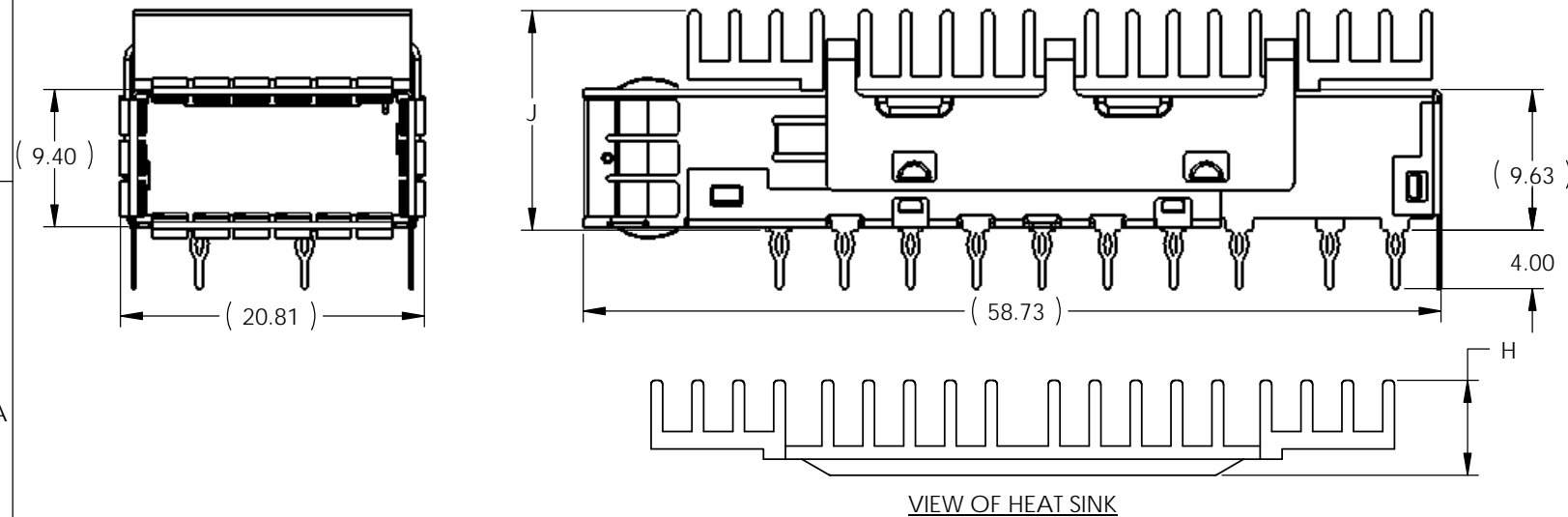
VIEW WITH STANDARD HEAT SINK AND CLIP ASSEMBLED  
AND OPTIONAL DUST COVER (SHIPPED LOOSE)  
(P/N U90-A126-2D0A)



VIEW WITHOUT HEAT SINK AND CLIP  
(P/N U90-A116-200X)

**NOTES:**

- CAGE AND EMI SPRINGS MATERIAL: COPPER ALLOY  
HEAT SINK CLIP MATERIAL: STEEL ALLOY  
HEAT SINK MATERIAL: ALUMINUM  
CAGE PLATING: MATTE TIN
- CAGE IS INTENDED TO BE COMPLIANT WITH THE QUAD SMALL FORM-FACTOR PLUGGABLE (QSFP) TRANSCEIVER SPECIFICATION REVISION 1.0.
- HEAT SINK, HEAT SINK CLIP AND DUST COVER ARE SHIPPED LOOSE PIECE.



VIEW OF HEAT SINK

**DO NOT SCALE DRAWING**

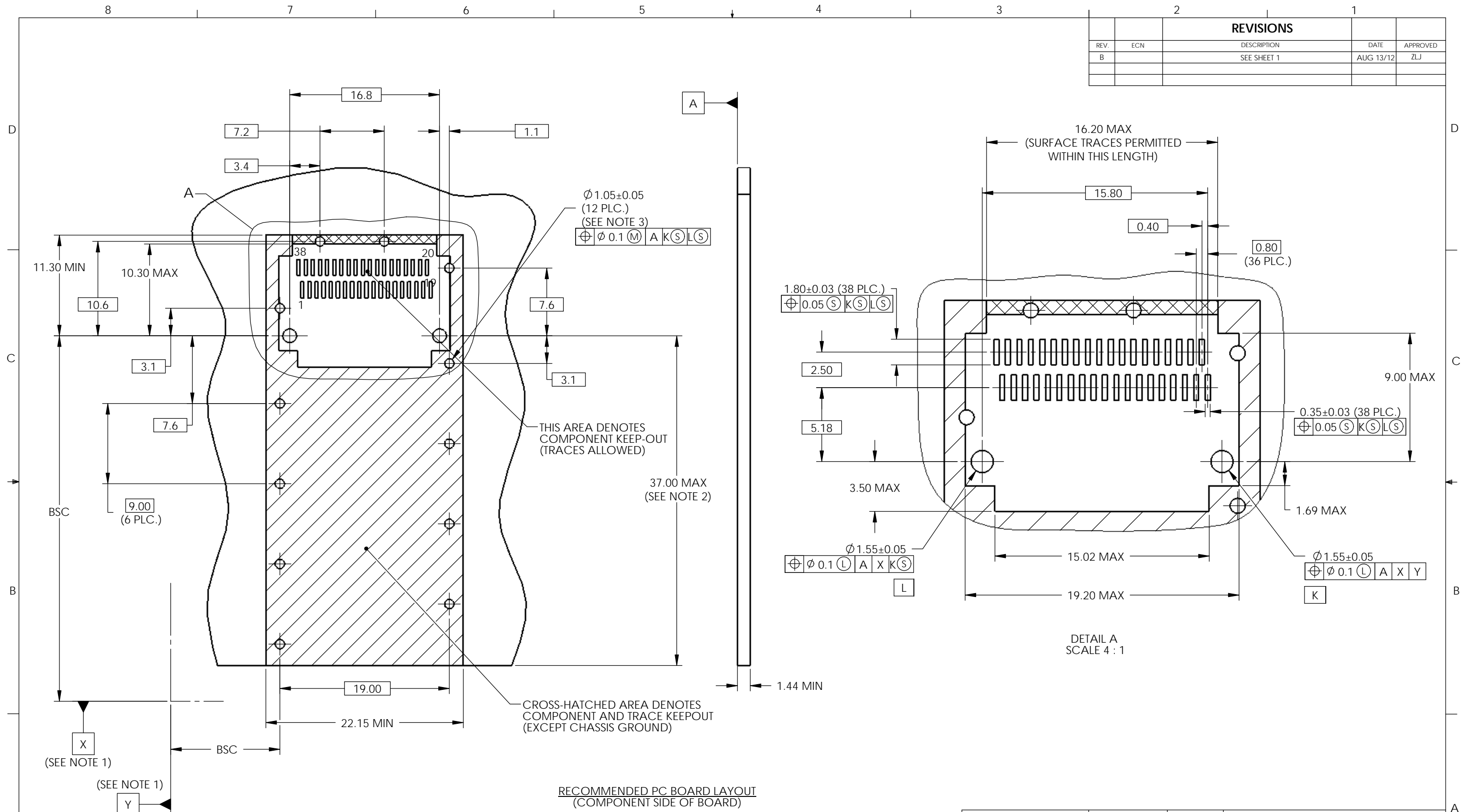
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PART NUMBER	DIM "J"	DIM "H"	HEAT SINK & CLIP OPTION
U90-A126-2X0X	15.03	6.50	IF HEAT SINK AND CLIP ARE SHIPPED LOOSE SEE DRAWING P-U90-1101-AXX0-BP
U90-A136-2X0X	12.73	4.20	
U90-A146-2X0X	22.03	13.50	
U90-A1A6-2X0X	15.03	6.50	
U90-A1B6-2X0X	12.73	4.20	
U90-A1C6-2X0X	22.03	13.50	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE:		<b>APPROVALS</b>		<b>DATE</b>		<b>Amphenol Canada Corp.</b>		
DECIMALS	ANGLES	DRAWN	M.LONG	DEC04/06	TITLE QSFP CAGE ASSEMBLY WITH MATTE TIN PLATING AND 4.00 MM LONG PRESS FIT PIN			
X.X ± 0.15	± 0.5°	DESIGNED	M.LONG	DEC04/06				
X.XX ± 0.10		CHECKED	J.SI	DEC04/06				
MATERIAL AND FINISH SEE NOTE 1		QA APPD						
REF.		IE APPD			SIZE A3	DWG. NO. P-U90-A1X6-2X0X	REV. B	
CODE IDENT. NO.	03554	DWG APPD	A.GREEN	DEC04/06	SCALE 2:1	PROJECT	SHEET 1 OF 4	

REVISIONS				
REV.	ECN	DESCRIPTION	DATE	APPROVED
B		SEE SHEET 1	AUG 13/12	ZLJ



$\phi 1.05 \pm 0.05$  (12 PLC.) (SEE NOTE 3)  
 $\oplus \phi 0.1 (M) A K(S) L(S)$

$\phi 1.80 \pm 0.03$  (38 PLC.)  
 $\oplus 0.05 (S) K(S) L(S)$

$\phi 1.55 \pm 0.05$   
 $\oplus \phi 0.1 (L) A X K(S)$

$\phi 0.35 \pm 0.03$  (38 PLC.)  
 $\oplus 0.05 (S) K(S) L(S)$

$\phi 1.55 \pm 0.05$   
 $\oplus \phi 0.1 (L) A X Y$

THIS AREA DENOTES COMPONENT KEEP-OUT (TRACES ALLOWED)

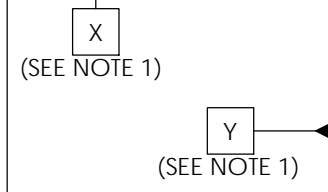
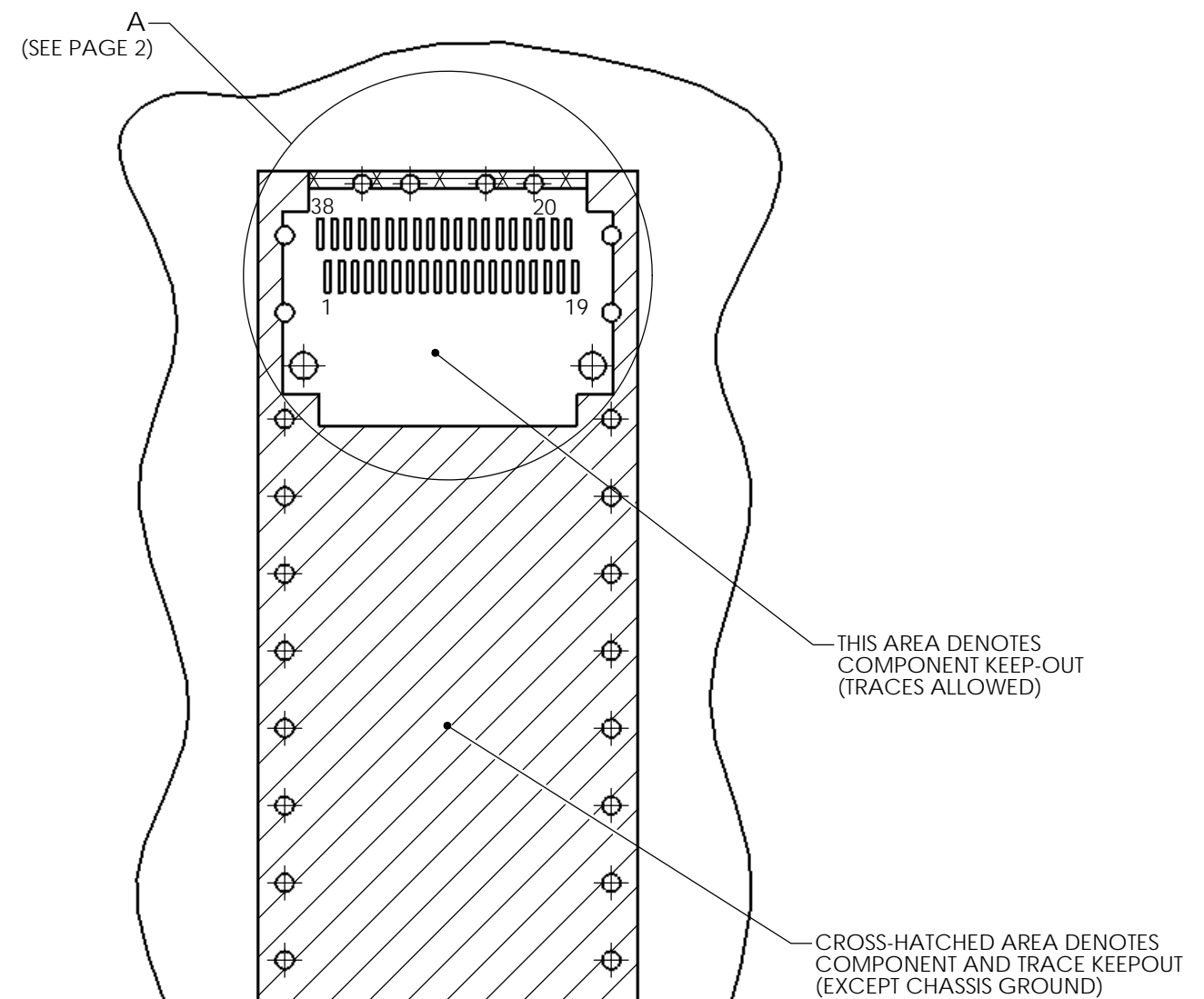
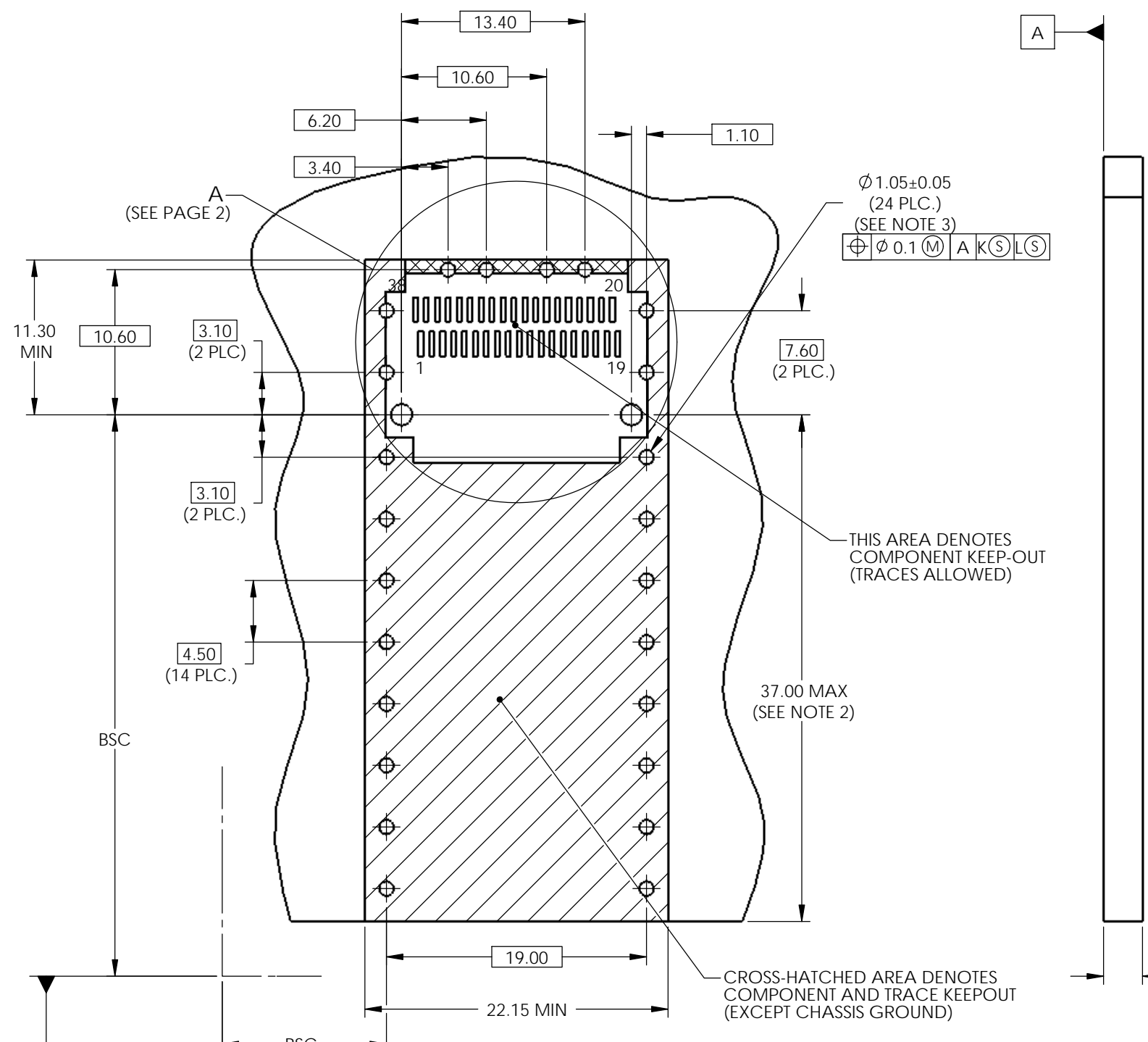
CROSS-HATCHED AREA DENOTES COMPONENT AND TRACE KEEPOUT (EXCEPT CHASSIS GROUND)

- NOTES:
- DATUMS X AND Y ESTABLISHED BY CUSTOMER'S FUDUCIAL.
  - LOCATION OF EDGE OF PCB IS APPLICATION SPECIFIC.
  - FINISHED HOLE SIZE.

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE:  DECIMALS      ANGLES X.X ± 0.15      ± 0.5° X.XX ± 0.10	<b>APPROVALS</b>	<b>DATE</b>	<b>Amphenol Canada Corp.</b>  TITLE QSFPC CAGE ASSEMBLY WITH MATTE TIN PLATING AND LONG PRESS FIT PIN
	DRAWN M.LONG	DEC04/06	
	DESIGNED M.LONG	DEC04/06	
	CHECKED J.SI	DEC04/06	
MATERIAL AND FINISH SEE NOTE 1	QA APPD		
REF.	IE APPD		
CODE IDENT. NO. 03554	DWG APPD A.GREEN	DEC04/06	SIZE A3 DWG. NO. P-U90-A1X6-2X0X SCALE 5:2 PROJECT SHEET 2 OF 4

REVISIONS				
REV.	ECN	DESCRIPTION	DATE	APPROVED
B		SEE SHEET 1	AUG 13/12	ZLJ



**RECOMMENDED BELLY-TO-BELLY PCB BOARD LAYOUT  
(COMPONENT SIDE OF BOARD)**

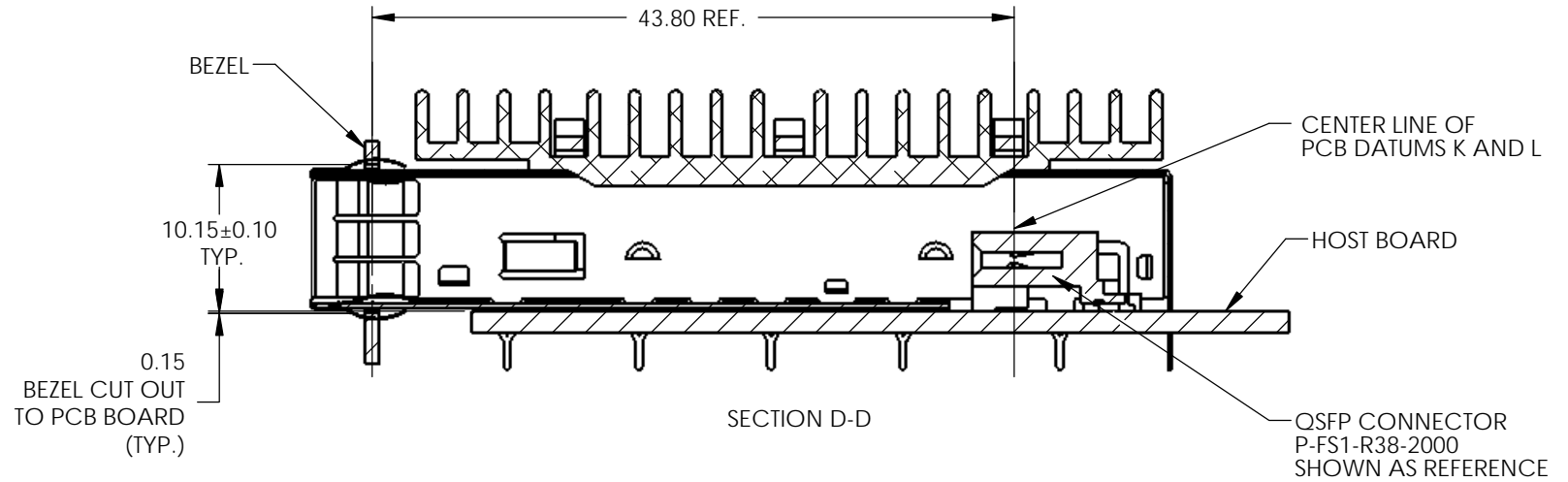
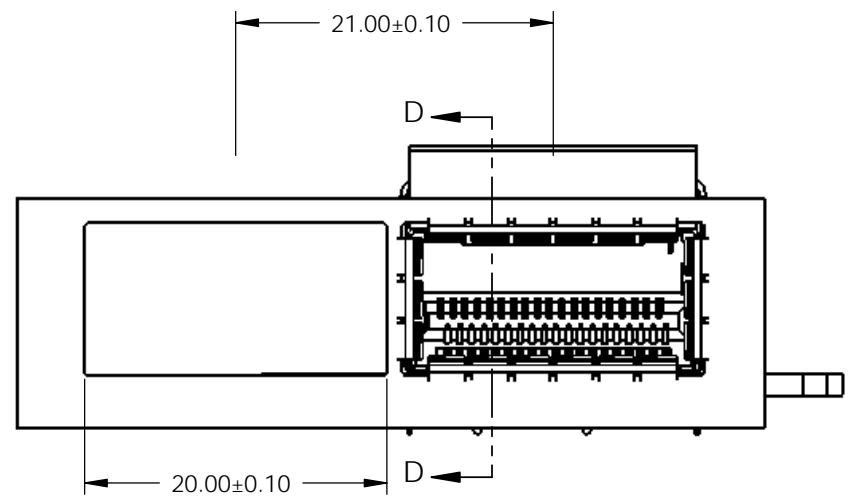
- NOTES:
- DATUMS X AND Y ESTABLISHED BY CUSTOMER'S FUDUCIAL.
  - LOCATION OF EDGE OF PCB IS APPLICATION SPECIFIC.
  - FINISHED HOLE SIZE.

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DECIMALS	ANGLES	DRAWN	M.LONG	DEC04/06	TITLE		
X.X ± 0.15	± 0.5°	DESIGNED	M.LONG	DEC04/06	QSFQ CAGE ASSEMBLY WITH MATTE TIN PLATING AND LONG PRESS FIT PIN		
MATERIAL AND FINISH		CHECKED	J.SI	DEC04/06	SIZE		
SEE NOTE 1		QA APPD			A3	DWG. NO	
REF.		IE APPD			P-U90-A1X6-2X0X	REV.	
CODE IDENT. NO.	03554	DWG APPD	A.GREEN	DEC04/06	SCALE	5:2	
					PROJECT	SHEET	
						3 OF 4	

REVISIONS				
REV.	ECN	DESCRIPTION	DATE	APPROVED
B		SEE SHEET 1	MAR 13/12	ZLJ



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE:		<b>APPROVALS</b>		<b>DATE</b>	<b>Amphenol Canada Corp.</b>
DECIMALS	ANGLES	DRAWN	M.LONG	DEC04/06	
X.X ± 0.15	± 0.5°	DESIGNED	M.LONG	DEC04/06	
X.XX ± 0.10		CHECKED	J.SI	DEC04/06	
MATERIAL AND FINISH		QA APPD			TITLE QSFP CAGE ASSEMBLY WITH MATTE TIN PLATING AND LONG PRESS FIT PIN
SEE NOTE 1		IE APPD			
REF.		DWG APPD		A.GREEN	SIZE A3
CODE IDENT. NO.	03554	DATE		DEC04/06	DWG. NO. P-U90-A1X6-2X0X
				SCALE	2:1
				PROJECT	
				SHEET	4 OF 4

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