

**AMPHENOL PART NUMBER CONFIGURATION**

U90 - H 1 X 1 - 1 X X X

**HEAT SINK OPTION**

- S = PIN STYLE HEAT SINK (NICKEL PLATED) AND CLIP (H=6.5mm: SAN HEIGHT)
- 5 = PIN STYLE HEAT SINK (NICKEL PLATED) AND CLIP (H=4.2mm: PCI HEIGHT)
- 6 = PIN STYLE HEAT SINK (NICKEL PLATED) AND CLIP (H=13.5mm: TALL)
- 7 = PIN STYLE HEAT SINK (NICKEL PLATED) AND CLIP (H=13.5mm: TALL)
- D = PIN-FIN HEAT SINK (ANODIZED, BLACK) AND CLIP (H=6.5mm: SAN HEIGHT)
- F = PIN-FIN HEAT SINK (ANODIZED, BLACK) AND CLIP (H=4.2mm: PCI HEIGHT)
- E = PIN-FIN HEAT SINK (ANODIZED, BLACK) AND CLIP (H=13.5mm: TALL)
- N = PIN-FIN HEAT SINK (NICKEL PLATED) AND CLIP (H=6.5mm: SAN HEIGHT)
- P = PIN-FIN HEAT SINK (NICKEL PLATED) AND CLIP (H=4.2mm: PCI HEIGHT)
- R = PIN-FIN HEAT SINK (NICKEL PLATED) AND CLIP (H=13.5mm: TALL)

NOTE: FOR DIMENSION "H" SEE SHEET 2

**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

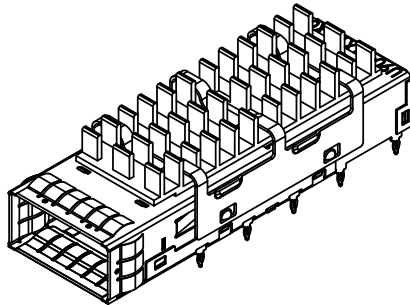
**LIGHT PIPE OPTION**

- 0 = WITHOUT LIGHT PIPE
- 1 = WITH DUAL ROUND LIGHT PIPE INSTALLED
- 3 = WITH SQUARE LIGHT PIPE INSTALLED (SEE SHEET 3 & 7 FOR DETAILS)
- 7 = WITH SINGLE ROUND LIGHT PIPE INSTALLED

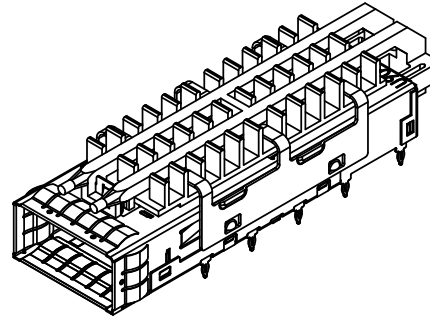
**OPTIONAL DUST COVER**

- 0 = WITHOUT DUST COVER
- D = WITH DUST COVER SHIPPED AS LOOSE PIECE

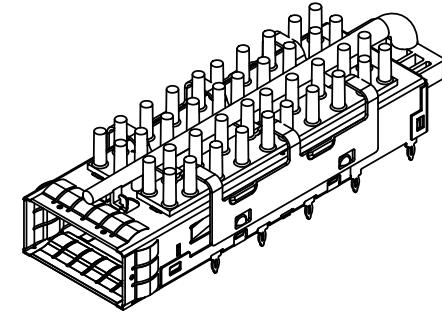
REVISIONS				
REV	ECN	DESCRIPTION	DATE	APPROVED
G		UPDATE THE HARD STOP FEATURE	NOV12/12	ZLJ
H		PRODUCTION RELEASE	JAN 22/13	ZLJ
J		SINGLE LIGHT PIPE OPTION ADDED	OCT 06/13	ZLJ



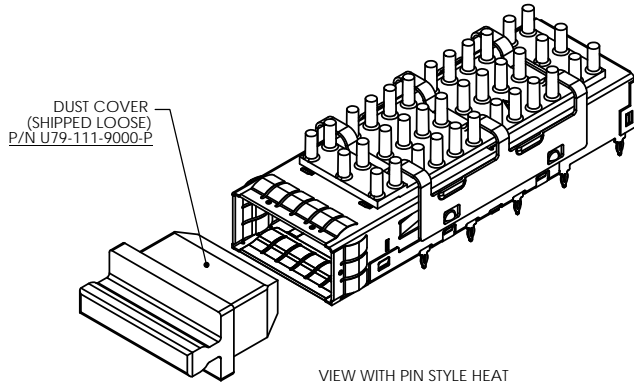
VIEW WITH PIN-FIN STYLE HEAT SINK AND CLIP ASSEMBLED (P/N U90-H1D1-100A)



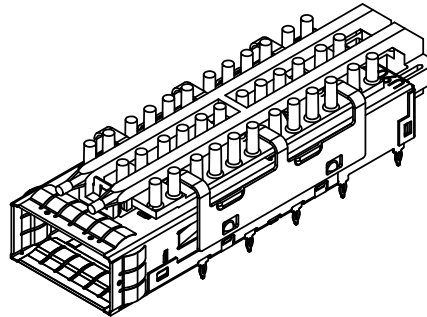
VIEW WITH PIN-FIN STYLE HEAT SINK, CLIP AND LIGHT PIPE ASSEMBLED (P/N U90-H1D1-101A)



VIEW WITH PIN STYLE HEAT SINK, CLIP AND LIGHT PIPE ASSEMBLED (P/N U90-H151-107A)



VIEW WITH PIN STYLE HEAT SINK AND CLIP ASSEMBLED AND DUST COVER (SHIPPED LOOSE) (P/N U90-H151-1D0A)



VIEW WITH PIN STYLE HEAT SINK, CLIP AND LIGHT PIPE ASSEMBLED (P/N U90-H151-101A)

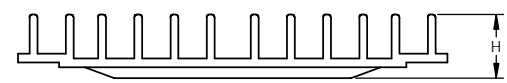
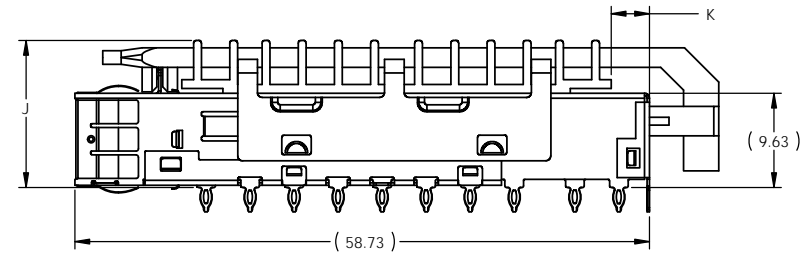
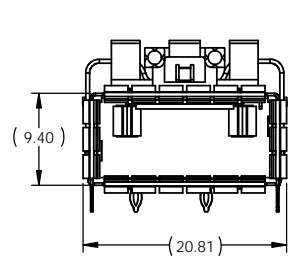
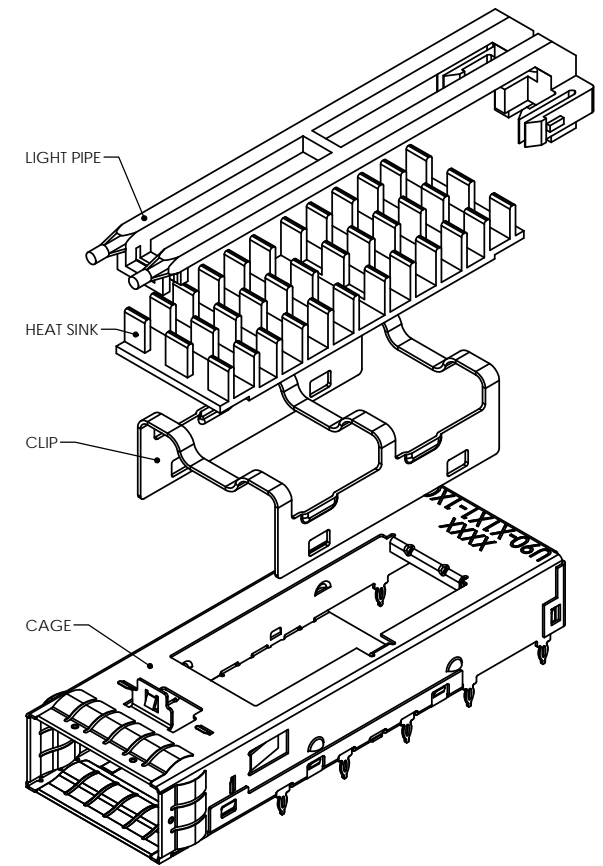
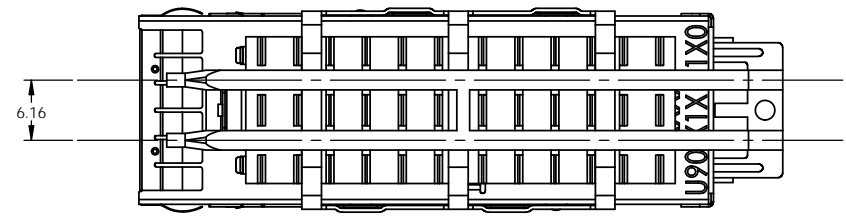


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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE:		<b>APPROVALS</b>		<b>DATE</b>		<b>Amphenol High Speed Interconnects</b> A Division of Amphenol Corp. www.amphenolhighspeed.com			
DECIMALS ± 0.15		DRAWN ZLJ		SEP 24/08		TITLE			
ANGLES ± 0.5°		DESIGNED ZLJ		SEP 24/08		OSFP CAGE ASSEMBLY WITH OPTIONAL LIGHT PIPE			
MATERIAL AND FINISH		CHECKED J.SI		SEP 24/08		SEE NOTE 1			
REF.		E.A.P.P.D.				SIZE DWG. NO. P-U90-H1X1-1XXX REV. J			
CODE IDENT. NO. 03554		DWG. APP'D A.GREEN		SEP 24/08		SCALE 2:1		PROJECT SHEET 1 OF 8	

REVISIONS				
REV	ECN	DESCRIPTION	DATE	APPROVED
G		UPDATE THE HARD STOP FEATURE	NOV12/12	ZLJ
H		PRODUCTION RELEASE	JAN 22/13	ZLJ
J		SINGLE LIGHT PIPE OPTION ADDED	OCT 06/13	ZLJ



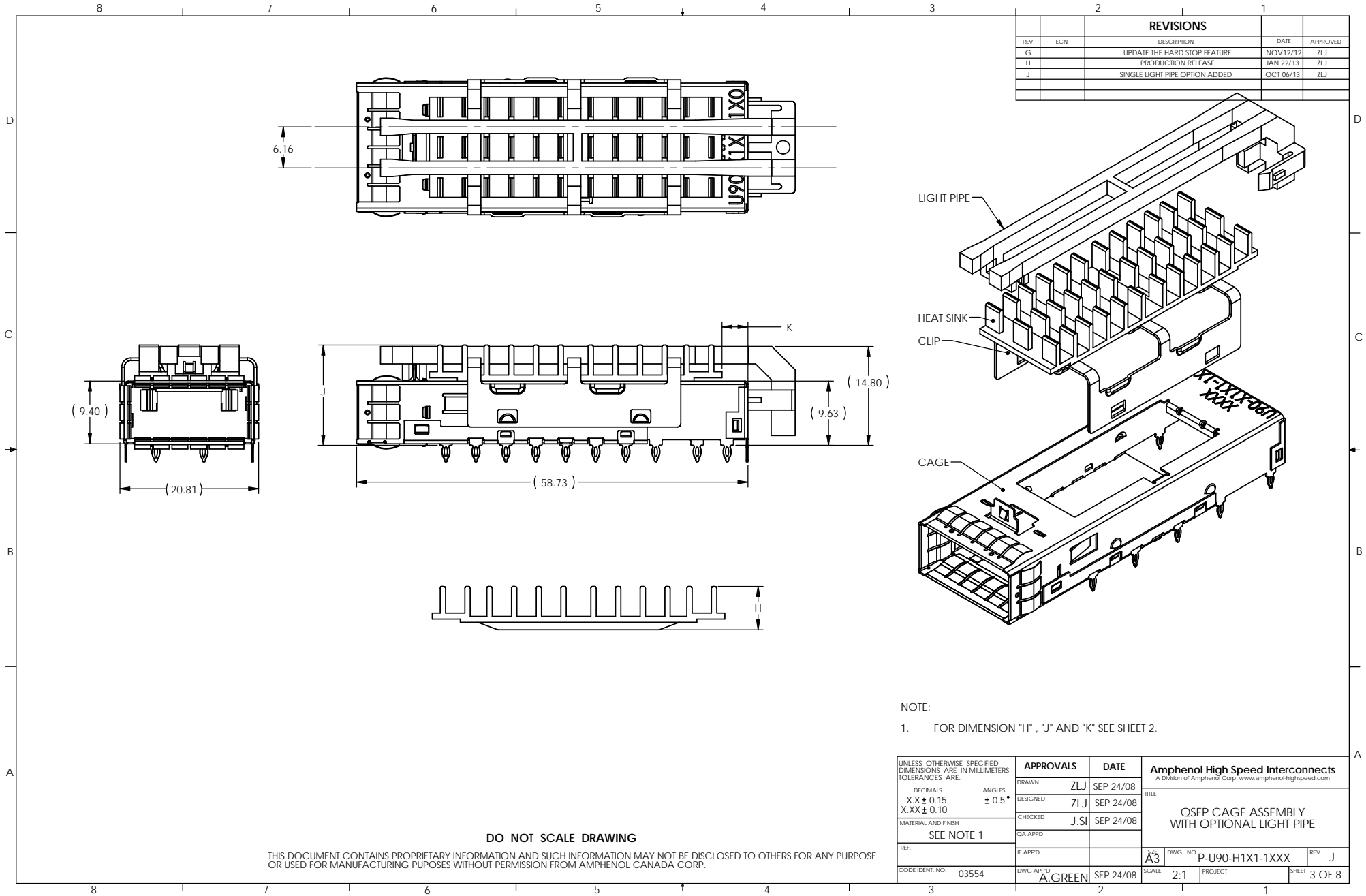
PART NUMBER	DIM "J"	DIM "H"	DIM "K"
U90-H151-1XXX	15.03	6.50	3.90
U90-H161-1XXX	12.73	4.20	
U90-H171-1XXX	22.03	13.50	
U90-H1D1-1XXX	15.03	6.50	
U90-H1E1-1XXX	12.73	4.20	
U90-H1F1-1XXX	22.03	13.50	
U90-H1N1-1XXX	15.03	6.50	
U90-H1P1-1XXX	12.73	4.20	
U90-H1R1-1XXX	22.03	13.50	

- NOTES:
- CAGE AND EMI SPRINGS MATERIAL: COPPER ALLOY  
CAGE PLATING: 2.54µm [100µ"] MIN. NICKEL.  
HEAT SINK CLIP MATERIAL: STEEL ALLOY  
HEAT SINK MATERIAL: ALUMINUM  
LIGHT PIPE MATERIAL: GE LEXAN CLEAR OPTICAL GRADE
  - CAGE IS INTENDED TO BE COMPLIANT WITH THE QUAD SMALL FORM-FACTOR PLUGGABLE (QSFP) TRANSCEIVER SPECIFICATION REVISION 1.0.

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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 High Speed Interconnects</b> <small>A Division of Amphenol Corp. www.amphenolhighspeed.com</small>		
	DRAWN ZLJ	SEP 24/08	TITLE		
	DESIGNED ZLJ	SEP 24/08	OSFP CAGE ASSEMBLY WITH OPTIONAL LIGHT PIPE		
	CHECKED J.SI	SEP 24/08	MATERIAL AND FINISH		
SEE NOTE 1			DRAWING NO. P-U90-H1X1-1XXX		
REF.	E APPD		SCALE	PROJECT	REV. J
CODE IDENT NO. 03554	DWG APPD A.GREEN	SEP 24/08	2:1		SHEET 2 OF 8



REVISIONS				
REV	ECN	DESCRIPTION	DATE	APPROVED
G		UPDATE THE HARD STOP FEATURE	NOV12/12	ZLJ
H		PRODUCTION RELEASE	JAN 22/13	ZLJ
J		SINGLE LIGHT PIPE OPTION ADDED	OCT 06/13	ZLJ

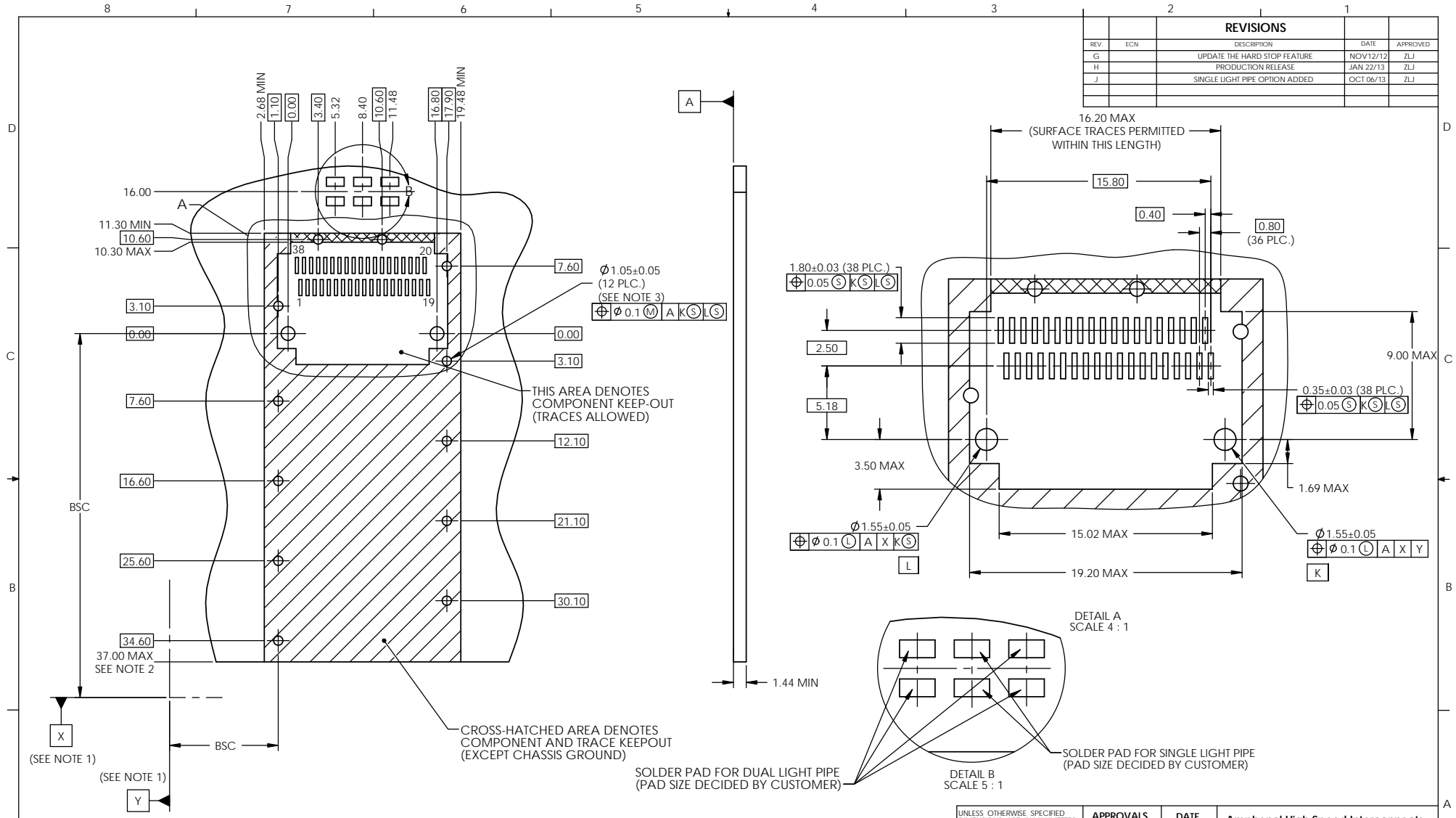
NOTE:  
 1. FOR DIMENSION "H", "J" AND "K" SEE SHEET 2.

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DIGITALS X.X ± 0.15 X.XX ± 0.10		ANGLES ± 0.5°		DRAWN	ZLJ	SEP 24/08	TITLE			
MATERIAL AND FINISH		DESIGNED		ZLJ	SEP 24/08	OSFP CAGE ASSEMBLY WITH OPTIONAL LIGHT PIPE				
SEE NOTE 1		CHECKED		J.SI	SEP 24/08	CAGE APPD				
REF.	E APPD	SCALE		A3		DWG. NO.	P-U90-H1X1-1XXX		REV.	J
CODE IDENT. NO.	03554	DWG APPD	A.GREEN	SEP 24/08	SCALE	2:1	PROJECT	SHEET		3 OF 8

REVISIONS				
REV	ECN	DESCRIPTION	DATE	APPROVED
G		UPDATE THE HARD STOP FEATURE	NOV12/12	ZLJ
H		PRODUCTION RELEASE	JAN 22/13	ZLJ
J		SINGLE LIGHT PIPE OPTION ADDED	OCT 06/13	ZLJ



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

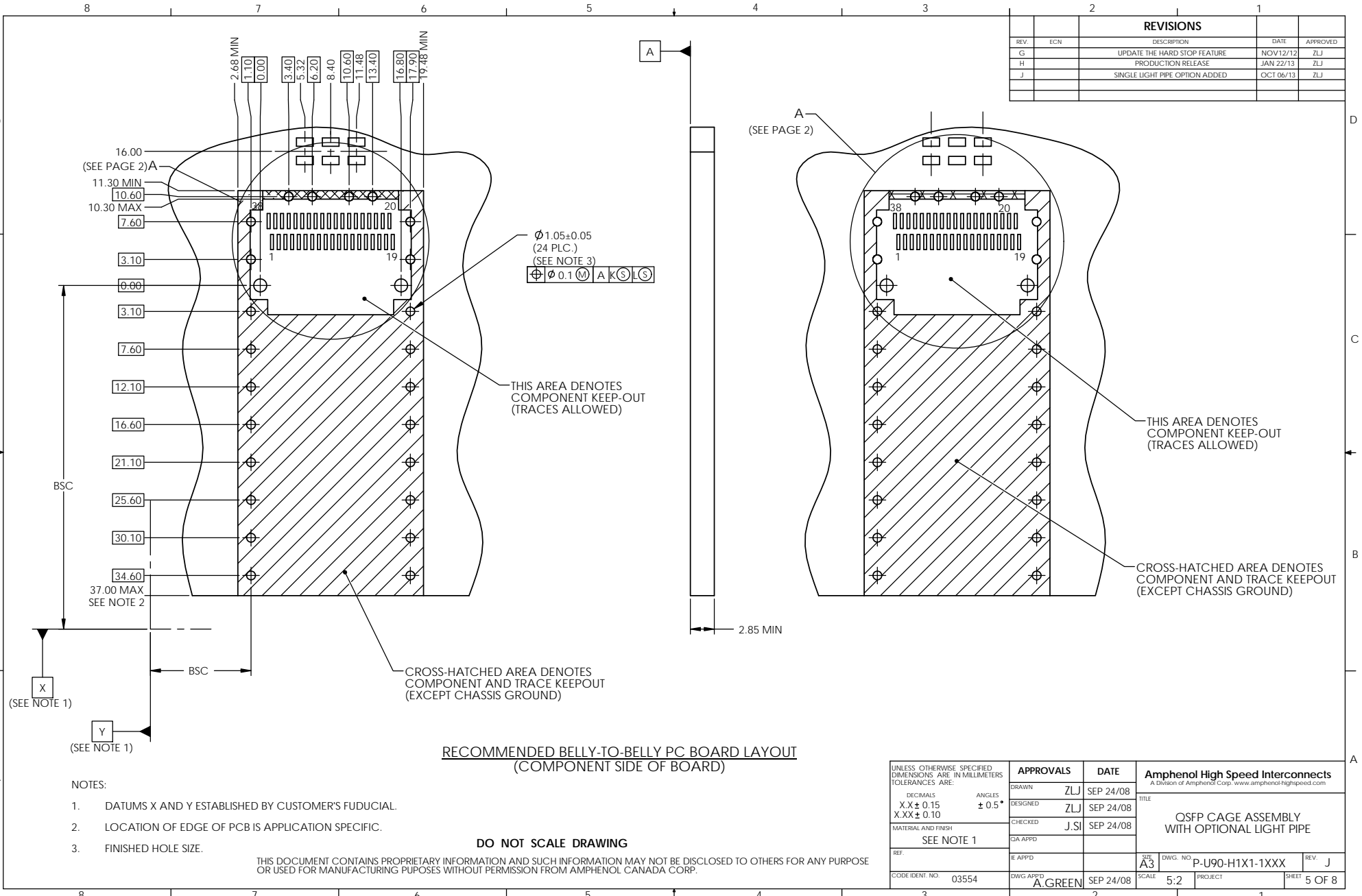
**RECOMMENDED PC BOARD LAYOUT**  
(COMPONENT SIDE OF BOARD)

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	DRAWN ZLJ	SEP 24/08	TITLE	
	DESIGNED ZLJ	SEP 24/08	OSFP CAGE ASSEMBLY WITH OPTIONAL LIGHT PIPE	
	CHECKED J.SI	SEP 24/08	PROJECT	
SIZE A3	DWG. NO. P-U90-H1X1-1XXX	SCALE 5:2	REV J	SHEET 4 OF 8
DWG APP'D A.GREEN	SEP 24/08	PROJECT		

REVISIONS				
REV	ECN	DESCRIPTION	DATE	APPROVED
G		UPDATE THE HARD STOP FEATURE	NOV12/12	ZLJ
H		PRODUCTION RELEASE	JAN 22/13	ZLJ
J		SINGLE LIGHT PIPE OPTION ADDED	OCT 06/13	ZLJ



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

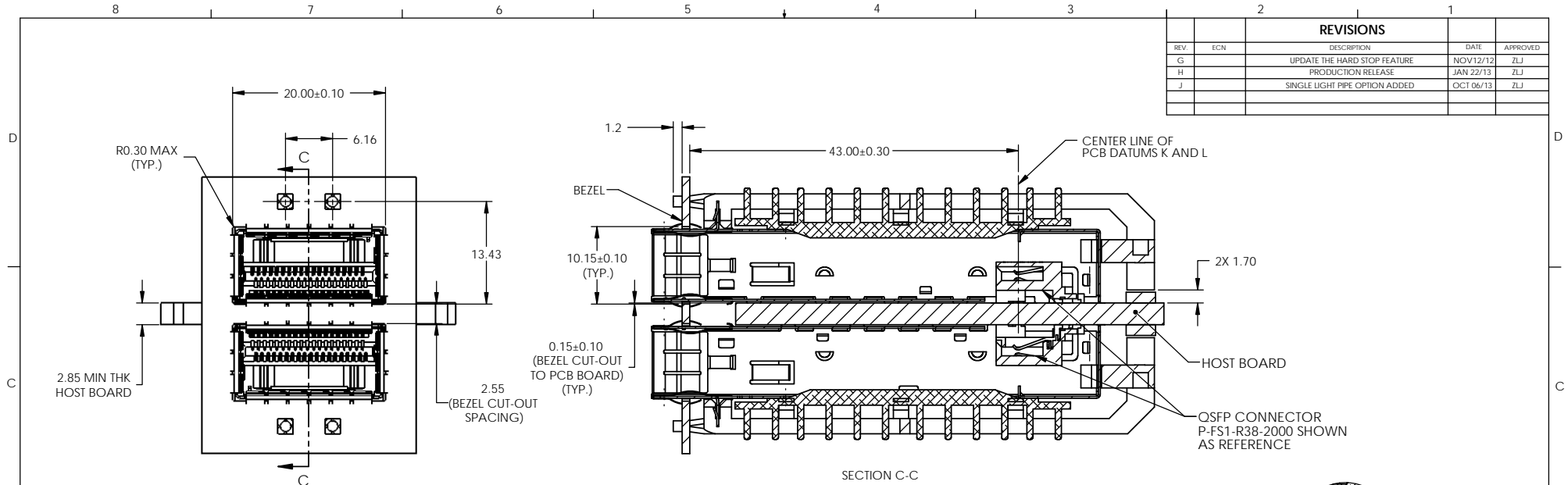
- NOTES:
- DATUMS X AND Y ESTABLISHED BY CUSTOMER'S FUDICIAL.
  - LOCATION OF EDGE OF PCB IS APPLICATION SPECIFIC.
  - FINISHED HOLE SIZE.

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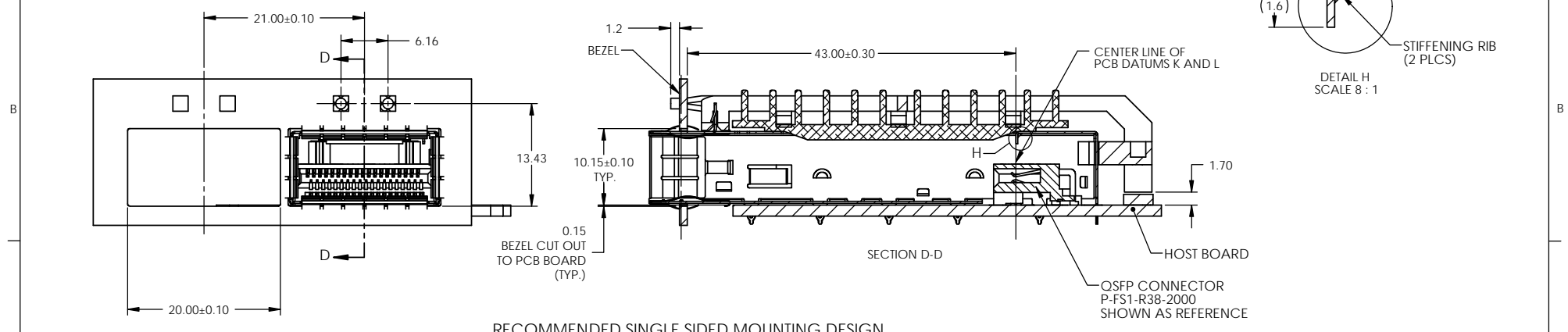
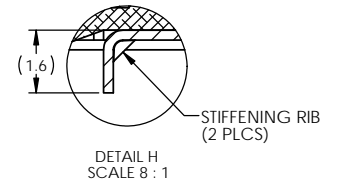
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	DRAWN ZLJ	SEP 24/08	TITLE	
	DESIGNED ZLJ	SEP 24/08	OSFP CAGE ASSEMBLY WITH OPTIONAL LIGHT PIPE	
	CHECKED J.SI	SEP 24/08	REV J	
	EA APPD		SIZE A3	DWG. NO. P-U90-H1X1-1XXX
	E APPD		SCALE 5:2	PROJECT
	DWG APPD A.GREEN	SEP 24/08	SHEET 5 OF 8	

REVISIONS				
REV	ECN	DESCRIPTION	DATE	APPROVED
G		UPDATE THE HARD STOP FEATURE	NOV12/12	ZLJ
H		PRODUCTION RELEASE	JAN 22/13	ZLJ
J		SINGLE LIGHT PIPE OPTION ADDED	OCT 06/13	ZLJ



RECOMMENDED BELLY-TO-BELLY MOUNTING DESIGN



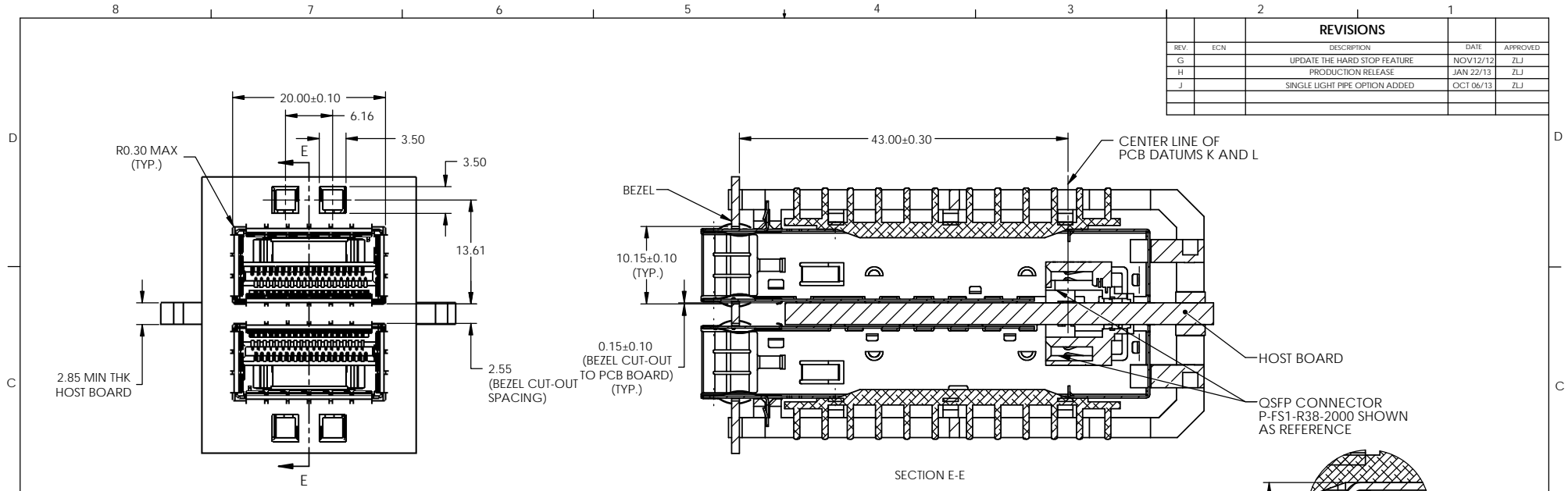
RECOMMENDED SINGLE SIDED MOUNTING DESIGN

DO NOT SCALE DRAWING

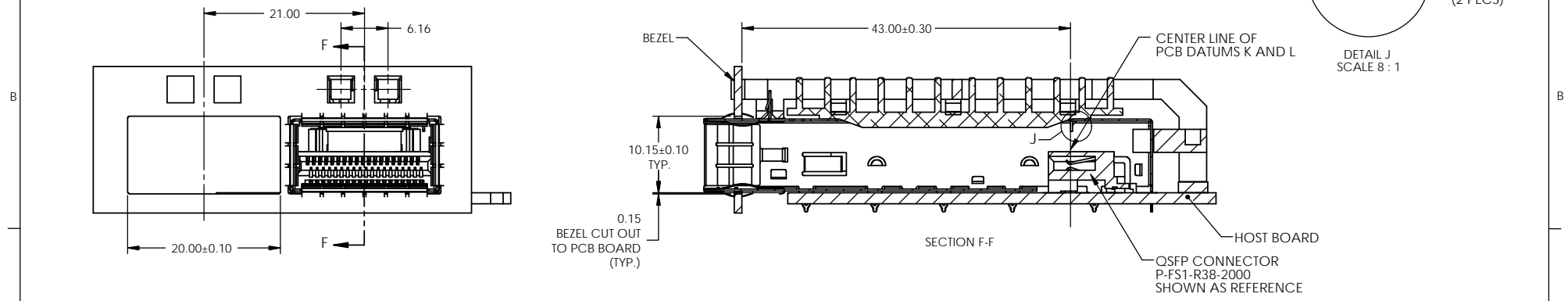
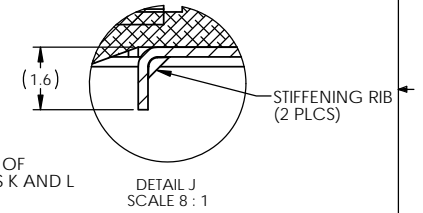
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	DRAWN: ZLJ	SEP 24/08			
	DESIGNED: ZLJ	SEP 24/08	SIZE: A3	DWG. NO: P-U90-H1X1-1XXX	REV: J
	CHECKED: J.SI	SEP 24/08	SCALE: 2:1	PROJECT:	SHEET: 6 OF 8
	DATE: SEP 24/08	DWG. APP'D: A.GREEN			

REVISIONS				
REV	ECN	DESCRIPTION	DATE	APPROVED
G		UPDATE THE HARD STOP FEATURE	NOV12/12	ZLJ
H		PRODUCTION RELEASE	JAN 22/13	ZLJ
J		SINGLE LIGHT PIPE OPTION ADDED	OCT 06/13	ZLJ



**RECOMMENDED BELLY-TO-BELLY MOUNTING DESIGN**



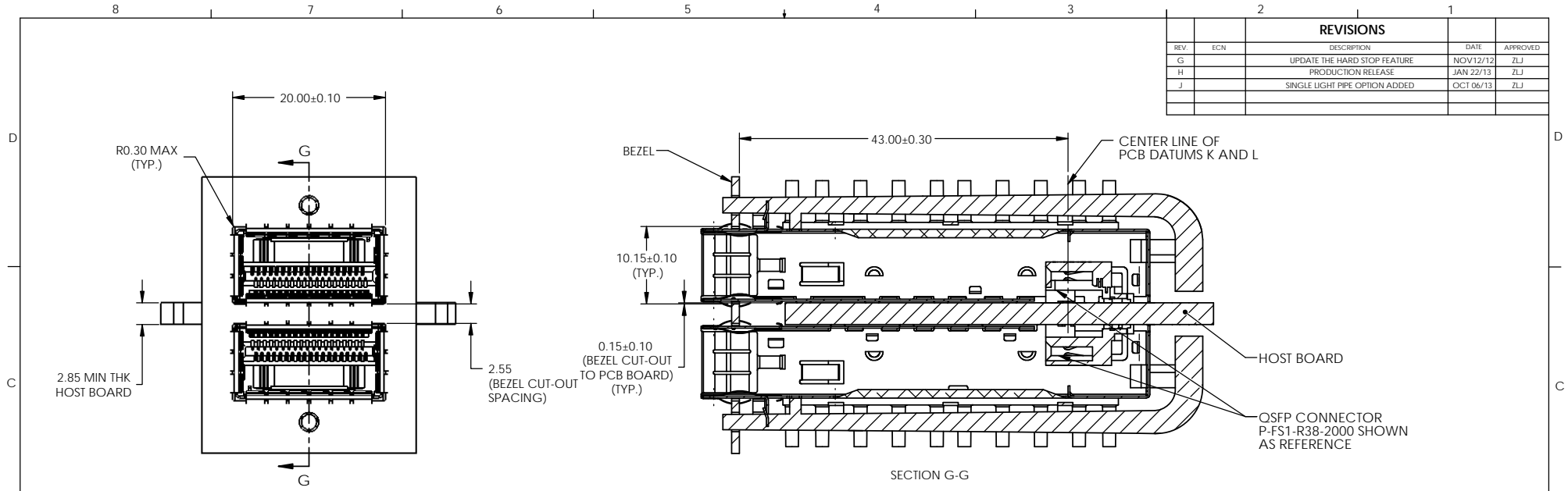
**RECOMMENDED SINGLE SIDED MOUNTING DESIGN**

**DO NOT SCALE DRAWING**

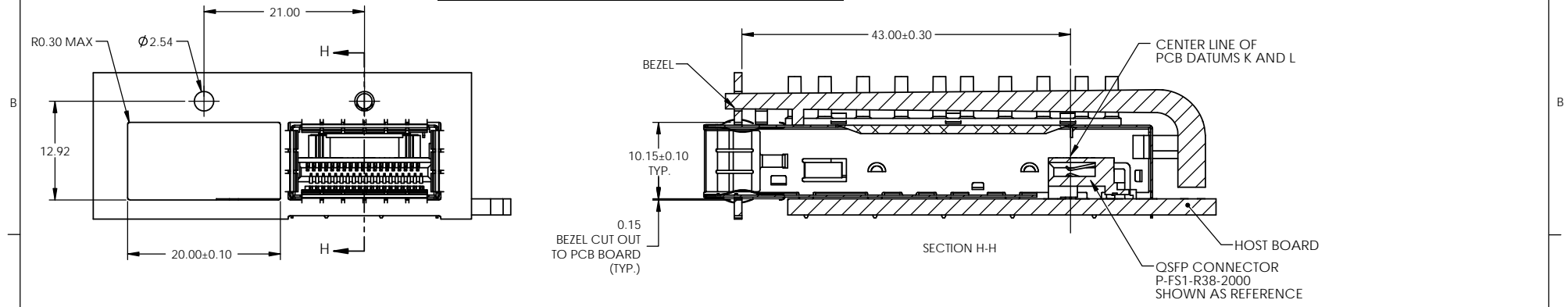
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	DRAWN ZLJ	SEP 24/08			
	DESIGNED ZLJ	SEP 24/08	SIZE A3	DWG. NO. P-U90-H1X1-1XXX	REV. J
	CHECKED J.SI	SEP 24/08	SCALE 2:1	PROJECT	SHEET 7 OF 8
REF.	E.APP'D A.GREEN	SEP 24/08			
CODE IDENT. NO. 03554	DWG APP'D				

REVISIONS				
REV	ECN	DESCRIPTION	DATE	APPROVED
G		UPDATE THE HARD STOP FEATURE	NOV12/12	ZLJ
H		PRODUCTION RELEASE	JAN 22/13	ZLJ
J		SINGLE LIGHT PIPE OPTION ADDED	OCT 06/13	ZLJ



RECOMMENDED BELLY-TO-BELLY MOUNTING DESIGN



RECOMMENDED SINGLE SIDED MOUNTING DESIGN

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	DRAWN      ZLJ	SEP 24/08			TITLE	
	DESIGNED      ZLJ	SEP 24/08	<b>QSFP CAGE ASSEMBLY WITH OPTIONAL LIGHT PIPE</b>			
	CHECKED      J.SI	SEP 24/08				
MATERIAL AND FINISH	SEE NOTE 1	SCALE	SIZE	DWG. NO.	REV.	
REF.		A3	2:1	P-U90-H1X1-1XXX	J	
CODE IDENT. NO.	03554	DWG APP'D	A.GREEN	SEP 24/08	PROJECT	SHEET
						8 OF 8





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.