

**AMPHENOL PART NUMBER CONFIGURATION**  
**U90 - G 3X1 - 1XXX**

**HEATSINK OPTION**

- 1 = NO HEATSINK OR CLIP SHIPPED
- 5 = PIN STYLE HEATSINK AND CLIP (H1=15.1; H2=6.5; SAN HEIG HD)
- 6 = PIN STYLE HEATSINK AND CLIP (H1=12.8; H2=4.2; PCI HEIG HD)
- 7 = PIN STYLE HEATSINK AND CLIP (H1= 22.1; H2=13.5; TALL)
- D = PIN-FIN STYLE HEATSINK AND CLIP (H1=15.1; H2=6.5; SAN HEIG HD)
- E = PIN-FIN STYLE HEATSINK AND CLIP (H1=12.8; H2=4.2; PCI HEIG HD)
- F = PIN-FIN STYLE HEATSINK AND CLIP (H1= 22.1; H2=13.5; TALL)
- K = PIN STYLE HEATSINK AND CLIP (H1=18.1; H2=9.5; CUSTOM HEIG HD)

NOTE:  
 FOR LOCATION OF "H1" AND "H2" DIMENSIONS SEE SHEET 2

**PACKAGING OPTIONS**

- 0 = TRAY PACKAGING (HEATSINK & CLIP SHIPPED IN SEPARATE TRAY, IF ORDERED)
- A = TRAY PACKAGING, HEATSINK & CLIP SHIPPED ASSEMBLED
- B = TRAY PACKAGING, HEATSINK & CLIP SHIPPED ASSEMBLED WITH LIGHT PIPE BULK PACKED

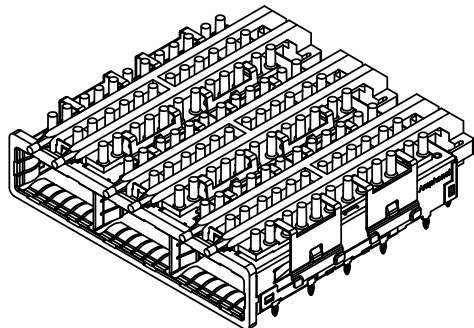
**LIGHT PIPE AND BEHIND BEZEL COVER OPTIONS**

- 0 = STANDARD (NO LIGHT PIPES)
- 1 = WITH ROUND LIGHT PIPES
- 2 = WITH ROUND LIGHT PIPES AND WITH BEHIND BEZEL EMI GASKET SHIPPED LOOSE
- 3 = WITH SQUARE LIGHT PIPES
- 7 = WITH ROUND SINGLE BARREL LIGHT PIPE
- B = WITH SQUARE LIGHT PIPES, WITH LIGHT PIPE INLET SURFACE AT 1.45 mm OFF THE PCB

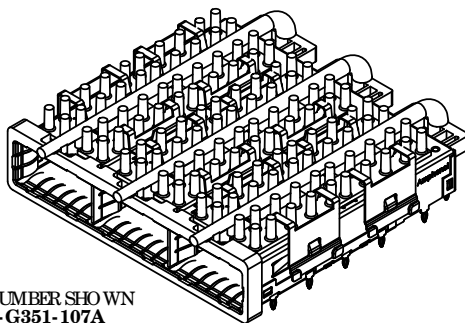
**OPTIONAL DUST COVER**

- 0 = WITH NO DUST COVER
- D = WITH DUST COVER (SHIPPED AS LOOSE PIECE)

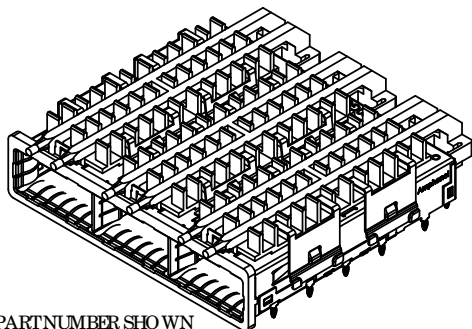
REV	DESCRIP	DATE	APPRVD
U	CORRECTED EMI GASKET NOTE	SEP 29/10	
V	CUSTOM POSITION REVISED	JAN 03/12	
W	ADDED NEW OPTION	JUN 19/12	
Z	ADDED NEW OPTION "B"	SEP 10/12	
Y	ADDED NEW OPTION "K"	OCT 15/12	



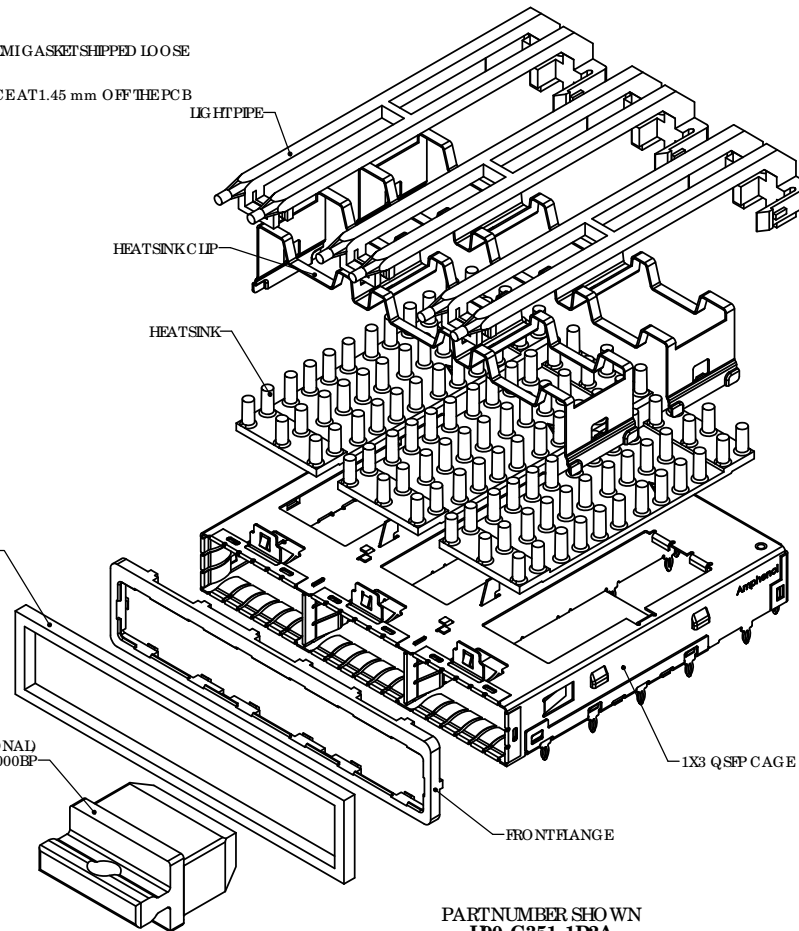
PART NUMBER SHOWN  
**U90-G351-101A**



PART NUMBER SHOWN  
**U90-G351-107A**



PART NUMBER SHOWN  
**U90-G3DI-101A**

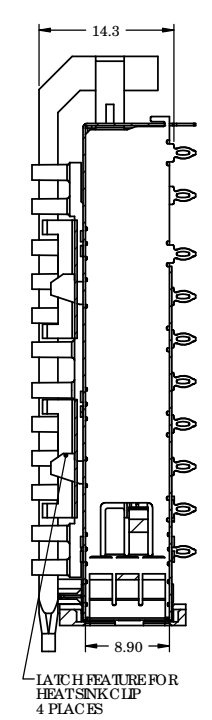
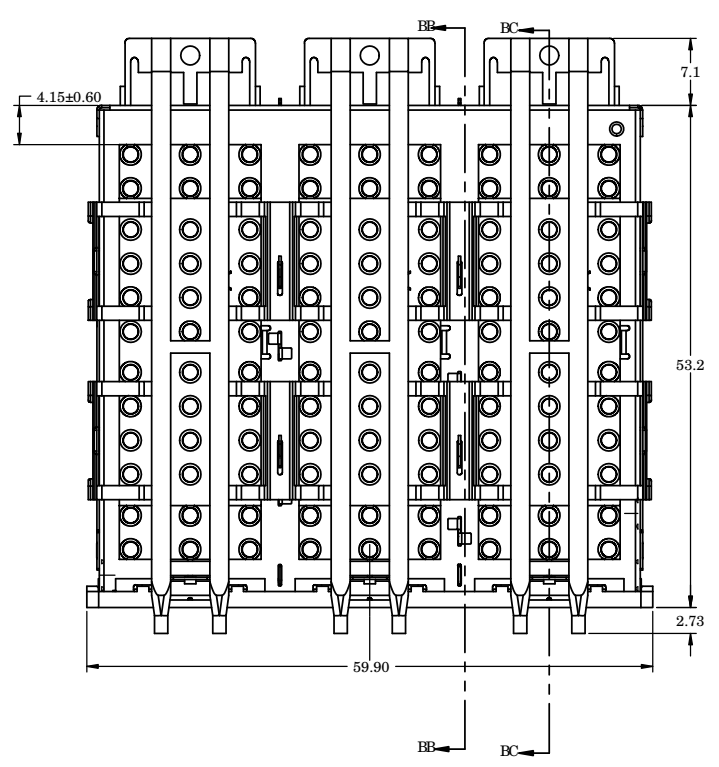


PART NUMBER SHOWN  
**U90-G351-1D2A**  
 (EXPLODED VIEW)

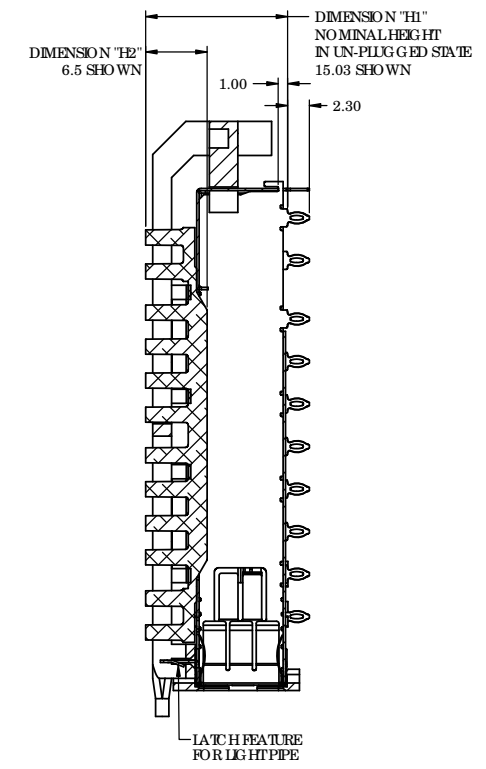
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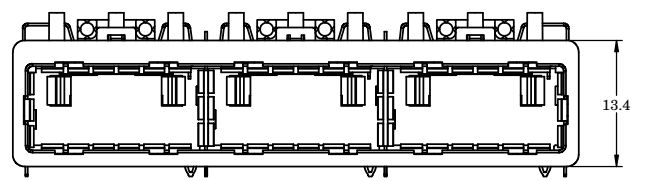
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETER TOLERANCES ARE:		APPROVALS	DATE	<b>Amphenol High Speed Interconnects</b> A Division of Amphenol Corp. www.amphenol-highspeed.com	
DECIMALS	ANGLES	DRAWN	MAY 23/08		
.XX ± .10	± 1°	Z.LJ		TITLE <b>QSFP 1x3 CAGE</b> <b>BEHIND BEZEL</b> WITH HEATSINK, CLIP AND LIGHT PIPE	
.X ± .25		DESIGNED	MAY 23/08		
MATERIAL AND FINISH		CHECKED		SIZE	DWG. NO.
REF.		QA APP'D		C	P-U90-G3X1-1XXX
CODE IDENT. NO.		IE APP'D		SCALE	PROJECT
		DWG APP'D	DEC.5.07	2:1	PROJECT
		A.GREEN			SHEET
					1 OF 11



SECTION BB-BB  
SCALE 2.5 : 1



SECTION BC-BC  
SCALE 2.5 : 1



**PART NUMBER SHOWN**  
**U90-G351-101A**  
**(WITH ROUND LIGHT PIPE)**

**NOTES:**

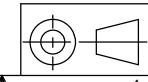
- MATERIAL:**  
CAGE AND EMI SPRINGS: COPPER ALLOY  
FRONT FLANGE: ZINC DIE CAST  
HEAT SINK CLIP: STEEL ALLOY  
PIN-FIN STYLE HEAT SINK: ALUMINUM  
PIN STYLE HEAT SINK: NICKEL PLATED ALUMINUM  
CAGE PLATING: 3.81µm [100µ"] MIN. NICKEL  
LIGHT PIPE: GE LEXAN, OPTICAL GRADE
- CAGE IS INTENDED FOR USE WITH THE QUAD SMALL FORM-FACTOR PLUGGABLE (QSFP) TRANSCEIVER SPECIFICATION INF-8438i.

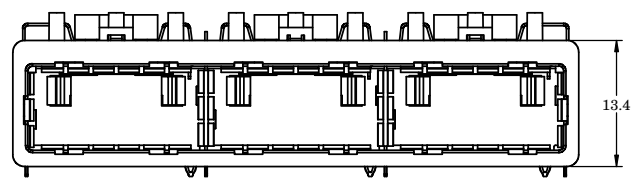
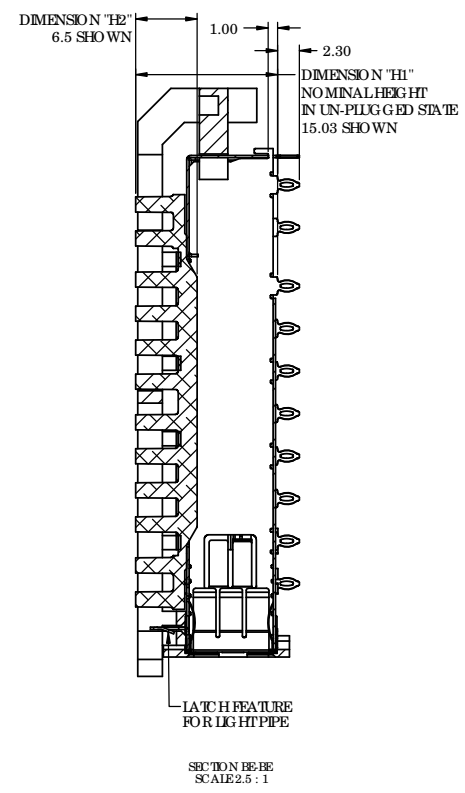
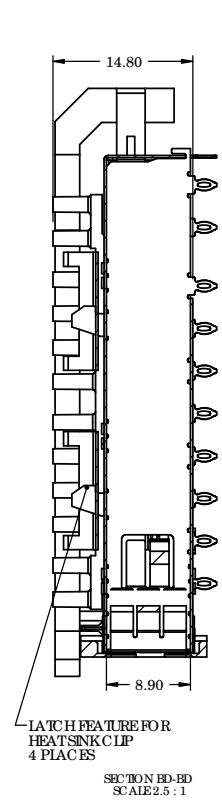
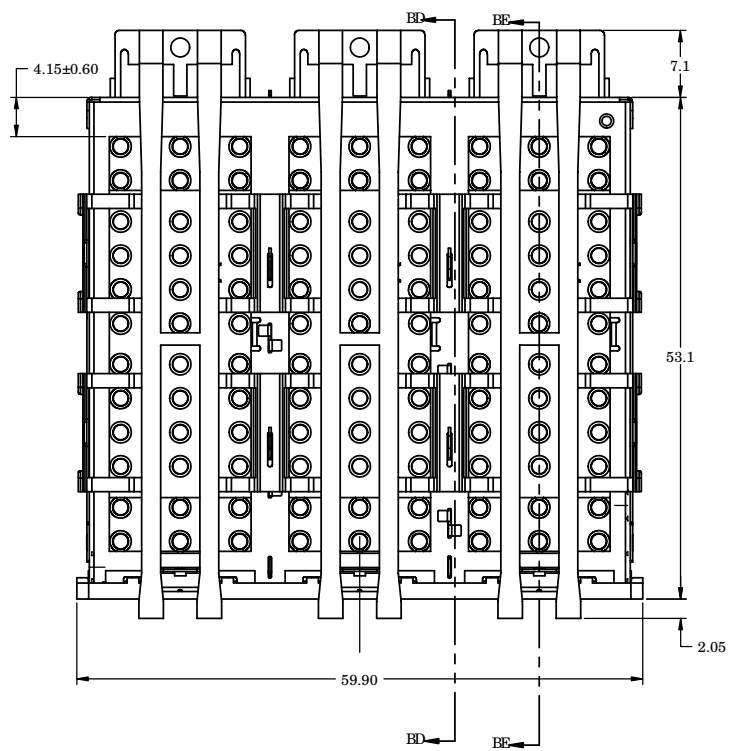
DIMENSION "H1" SHOWN IN UN-PLUGGED STATE		
PART NUMBER	DIM. "H1"	DIM. "H2"
U90-G351-1XXX	15.03	6.50
U90-G361-1XXX	12.37	4.20
U90-G371-1XXX	22.03	13.50
U90-G3D1-1XXX	15.03	6.50
U90-G3E1-1XXX	12.37	4.20
U90-G3F1-1XXX	22.03	13.50
U90-G3K1-1XXX	18.03	9.50



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETER TOLERANCES ARE:		APPROVALS	DATE
DECIMALS	ANGLES	DRAWN	MAY 23/08
.XX ±.10	± 1°	Z.LJ	
.X ±.25		DESIGNED	MAY 23/08
		Z.LJ	
MATERIAL AND FINISH		CHECKED	
		QA APP'D	
		IE APP'D	
REF.		DWG APP'D	
CODE IDENT. NO.		A.GREEN	DEC.5.07

<b>Amphenol High Speed Interconnects</b> A Division of Amphenol Corp. www.amphenol-highspeed.com			
TITLE <b>QSFP 1x3 CAGE BEHIND BEZEL WITH HEAT SINK, CLIP AND LIGHT PIPE</b>			
SIZE C	DWG. NO. P-U90-G3X1-1XXX	REV. Y	
SCALE 2:1	PROJECT PROJECT	SHEET 2 OF 11	





**PART NUMBER SHOWN**  
**U90-G351-103A**  
**(WITH SQUARE LIGHT PIPE)**

**NOTES:**

- MATERIAL:**  
CAGE AND EMI SPRINGS: COPPER ALLOY  
FRONT FLANGE: ZINC DIE CAST  
HEAT SINK CLIP: STEEL ALLOY  
PIN-FIN STYLE HEAT SINK: ALUMINUM  
PIN STYLE HEAT SINK: NICKEL PLATED ALUMINUM  
CAGE PLATING: 3.81µm [100µ"] MIN. NICKEL  
LIGHT PIPE: GE LEXAN, OPTICAL GRADE
- CAGE IS INTENDED FOR USE WITH THE QUAD SMALL FORM-FACTOR PLUGGABLE (QSFP) TRANSCEIVER SPECIFICATION INF-8438i.

DIMENSION "HI" SHOWN IN UN-PLUGGED STATE		
PART NUMBER	DIM. "HI"	DIM. "H2"
U90-G351-1XXX	15.03	6.50
U90-G361-1XXX	12.37	4.20
U90-G371-1XXX	22.03	13.50
U90-G3D1-1XXX	15.03	6.50
U90-G3E1-1XXX	12.37	4.20
U90-G3F1-1XXX	22.03	13.50
U90-G3K1-1XXX	18.03	9.50

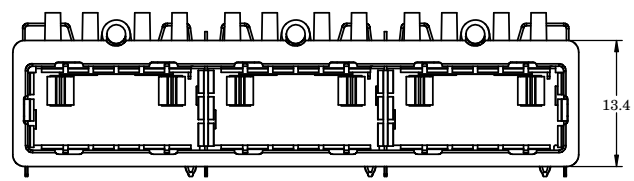
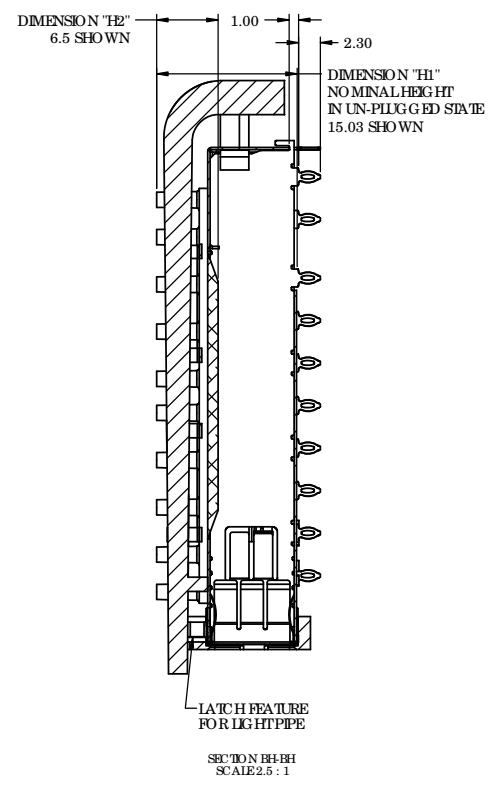
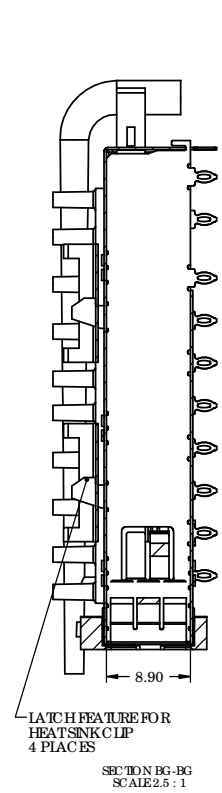
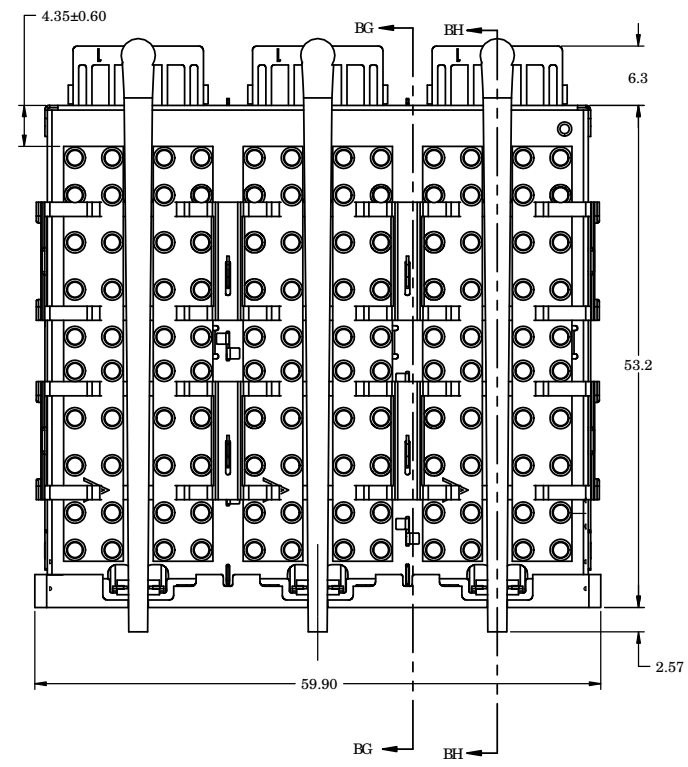


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETER TOLERANCES ARE:		APPROVALS	DATE
DECIMALS	ANGLES	DRAWN	MAY 23/08
.XX ±.10	± 1°	Z.LJ	
.X ±.25		DESIGNED	MAY 23/08
		Z.LJ	
MATERIAL AND FINISH		CHECKED	
		QA APP'D	
		IE APP'D	
		DWG APP'D	DEC.5.07
REF.		A.GREEN	
CODE IDENT. NO.			

**Amphenol High Speed Interconnects**  
A Division of Amphenol Corp. www.amphenol-highspeed.com

**TITLE**  
**QSFP 1x3 CAGE**  
**BEHIND BEZEL**  
**WITH HEAT SINK, CLIP AND LIGHT PIPE**

SIZE	DWG. NO.	REV.
C	P-U90-G3X1-1XXX	Y
SCALE	PROJECT	SHEET
2:1	PROJECT	3 OF 11



**PART NUMBER SHOWN**  
**U90-G351-107A**  
**(WITH SINGLE BARREL**  
**ROUND LIGHT PIPE)**

**NOTES:**

- MATERIAL:**  
CAGE AND EMI SPRINGS: COPPER ALLOY  
FRONT FLANGE: ZINC DIE CAST  
HEAT SINK CLIP: STEEL ALLOY  
PIN-FIN STYLE HEAT SINK: ALUMINUM  
PIN STYLE HEAT SINK: NICKEL PLATED ALUMINUM  
CAGE PLATING: 3.81µm [100µ"] MIN. NICKEL  
LIGHT PIPE: GE LEXAN, OPTICAL GRADE
- CAGE IS INTENDED FOR USE WITH THE QUAD SMALL FORM-FACTOR PLUGGABLE (QSFP) TRANSCEIVER SPECIFICATION INF-8438i.

DIMENSION "HI" SHOWN IN UN-PLUGGED STATE		
PART NUMBER	DIM. "HI"	DIM. "H2"
U90-G351-1XXX	15.03	6.50
U90-G361-1XXX	12.37	4.20
U90-G371-1XXX	22.03	13.50
U90-G3D1-1XXX	15.03	6.50
U90-G3E1-1XXX	12.37	4.20
U90-G3F1-1XXX	22.03	13.50
U90-G3K1-1XXX	18.03	9.50

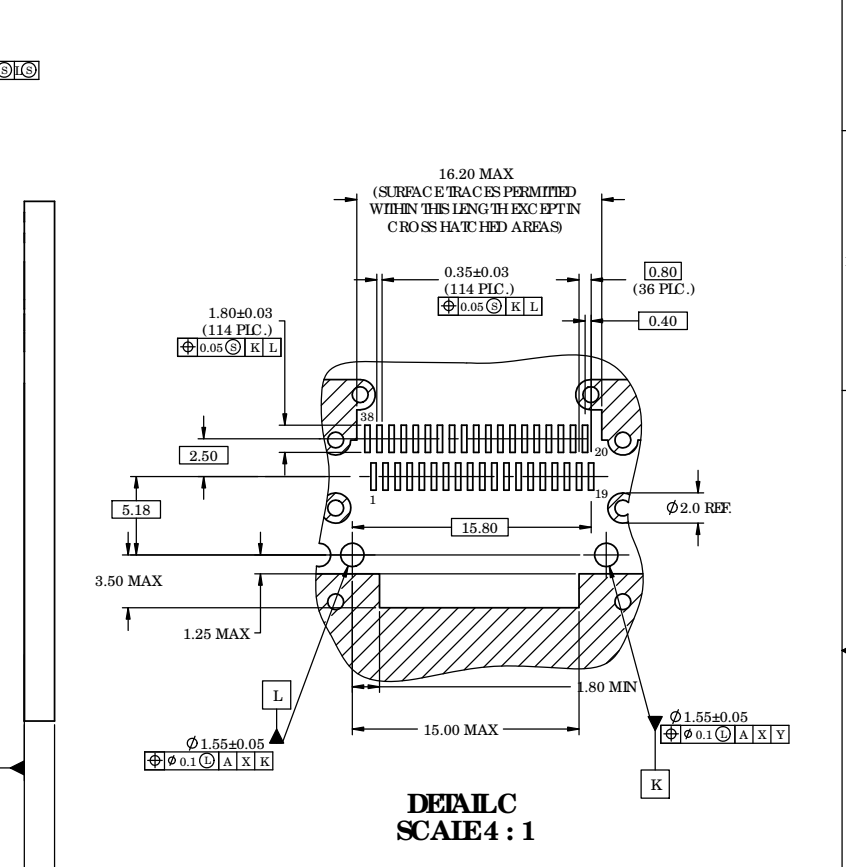
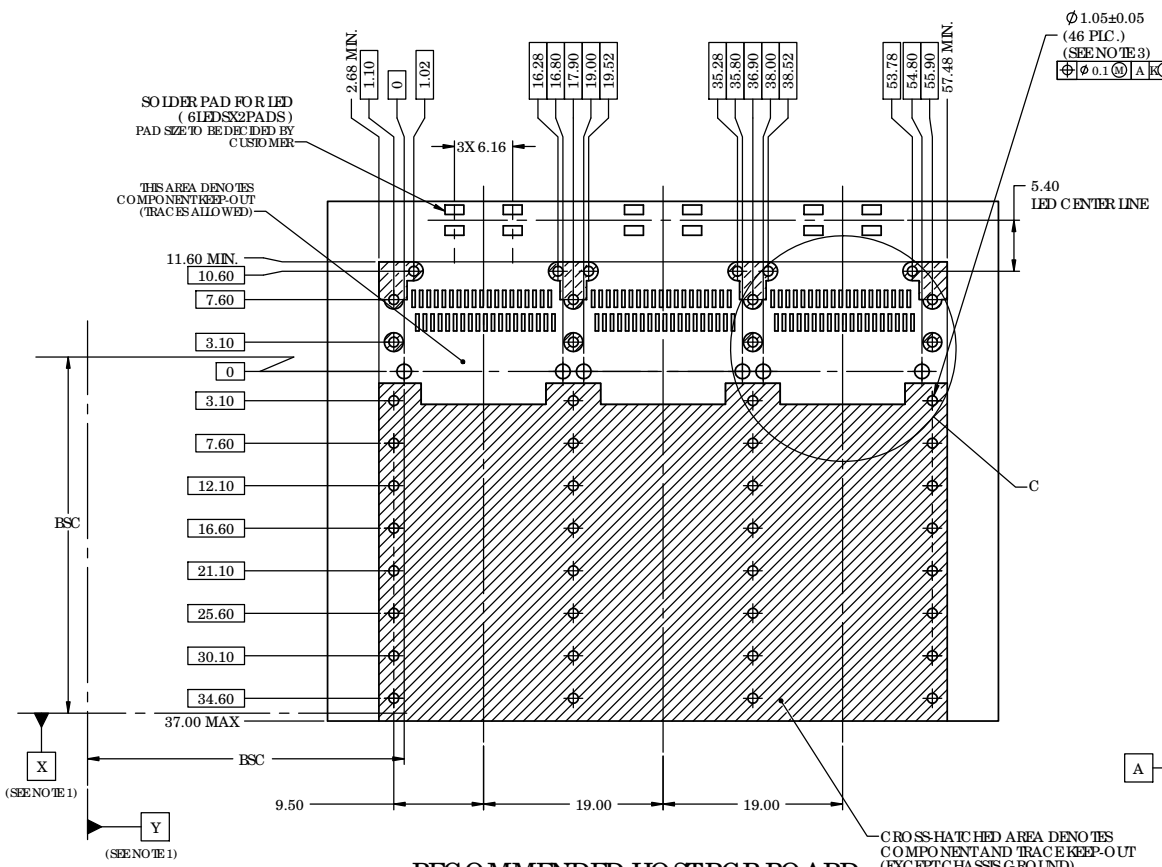


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETER TOLERANCES ARE:		APPROVALS	DATE
DECIMALS	ANGLES	DRAWN	MAY 23/08
.XX ±.10	± 1°	ZLJ	
.X ±.25		DESIGNED	MAY 23/08
		ZLJ	
MATERIAL AND FINISH		CHECKED	
		QA APP'D	
		IE APP'D	
REF.		DWG APP'D	DEC.5.07
CODE IDENT. NO.		A.GREEN	

**Amphenol High Speed Interconnects**  
A Division of Amphenol Corp. www.amphenol-highspeed.com

**TITLE**  
**QSFP 1x3 CAGE**  
**BEHIND BEZEL**  
**WITH HEAT SINK, CLIP AND LIGHT PIPE**

SIZE	DWG. NO.	REV.
C	P-U90-G3X1-1XXX	Y
SCALE	PROJECT	SHEET
2:1	PROJECT	4 OF 11



**RECOMMENDED HOST PCB BOARD  
 BEHIND BEZEL BELLY TO BELLY LAYOUT  
 FOR DOUBLE BARREL LIGHT PIPE  
 (COMPONENT SIDE OF BOARD)**

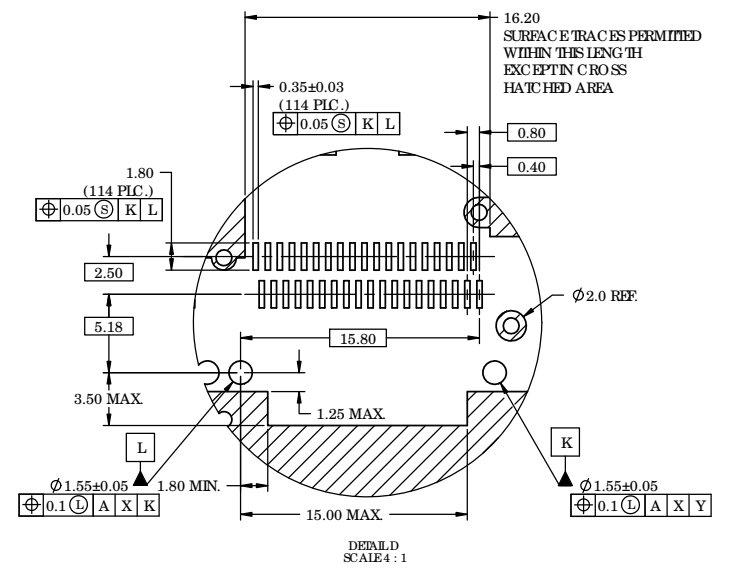
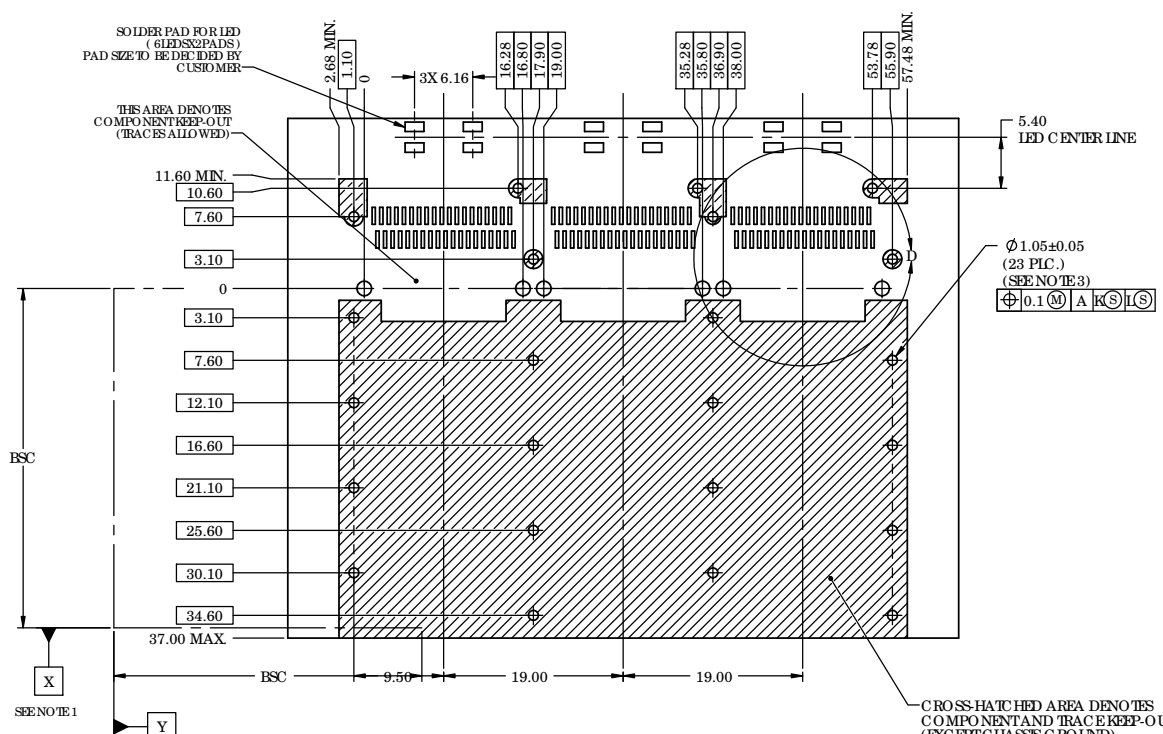
**3.20±0.32  
 FOR BELLY TO BELLY APPLICATION**

**NOTES:**

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



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETER TOLERANCES ARE:		APPROVALS	DATE	<b>Amphenol High Speed Interconnects</b> A Division of Amphenol Corp. www.amphenol-highspeed.com	
DECIMALS	ANGLES	DRAWN Z.LJ	MAY 23/08		
.XX ±.10	± 1°	DESIGNED Z.LJ	MAY 23/08	TITLE <b>QSFP 1x3 CAGE BEHIND BEZEL</b>	
.X ±.25		CHECKED		WITH HEATSINK, CLIP AND LIGHT PIPE	
MATERIAL AND FINISH		QA APP'D		SIZE C	DWG. NO. P-U90-G3X1-1XXX
REF.		IE APP'D		SCALE 5:2	PROJECT PROJECT
CODE IDENT. NO.		DWG APP'D A.GREEN	DEC.5.07	SHEET 5 OF 11	REV. Y



**RECOMMENDED HO ST PCB BOARD  
 SINGLE LEVEL MOUNTING LAYOUT  
 FOR DOUBLE BARREL LIGHT PIPE  
 (COMPONENT SIDE OF BOARD)**

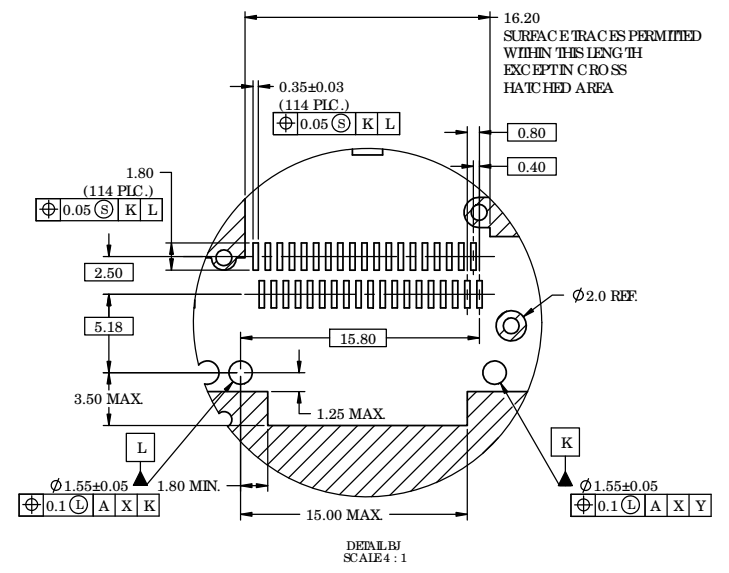
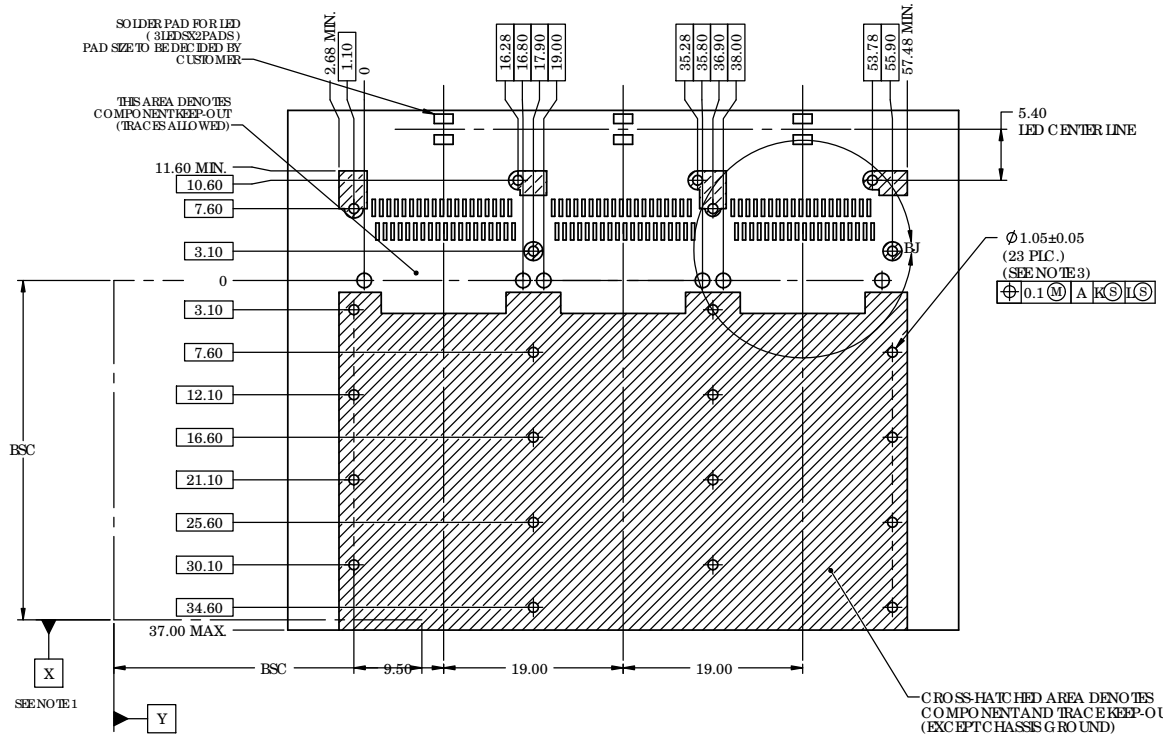
**NOTES:**

1. DATUM X AND Y ESTABLISHED BY CUSTOMER'S FUDUCIAL
2. LOCATION OF EDGE OF PCB IS APPLICATION SPECIFIC.
3. FINISHED HOLE SIZE



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETER TOLERANCES ARE: DECIMALS .XX ±.10 .X ±.25 ANGLES ± 1°		APPROVALS	DATE	<b>Amphenol High Speed Interconnects</b> A Division of Amphenol Corp. www.amphenol-highspeed.com	
MATERIAL AND FINISH		DRAWN Z.LJ	MAY 23/08		
REF.		DESIGNED Z.LJ	MAY 23/08	TITLE <b>QSFP 1x3 CAGE BEHIND BEZEL WITH HEATSINK, CLIP AND LIGHT PIPE</b>	
CODE IDENT. NO.		CHECKED			
		QA APP'D		SIZE C	DWG. NO. P-U90-G3X1-1XXX
		IE APP'D		SCALE 2:1	PROJECT PROJECT
		DWG APP'D A.GREEN	DEC.5.07	SHEET 6 OF 11	REV. Y





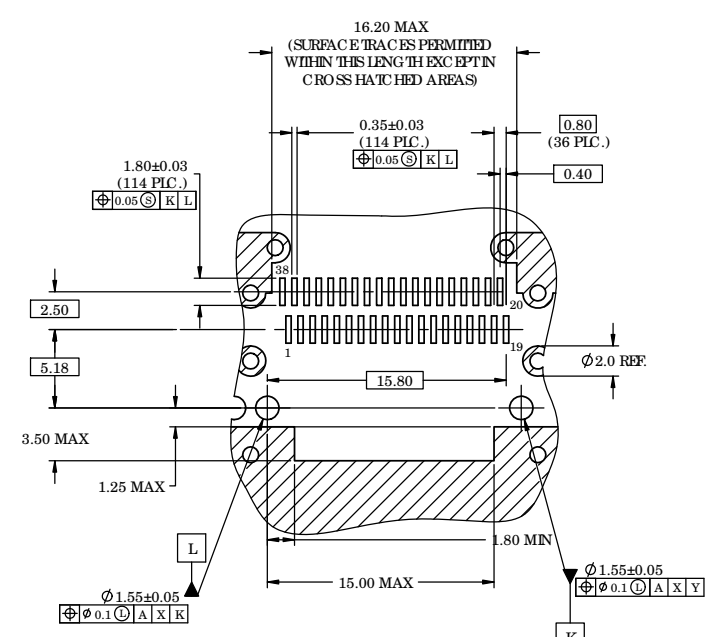
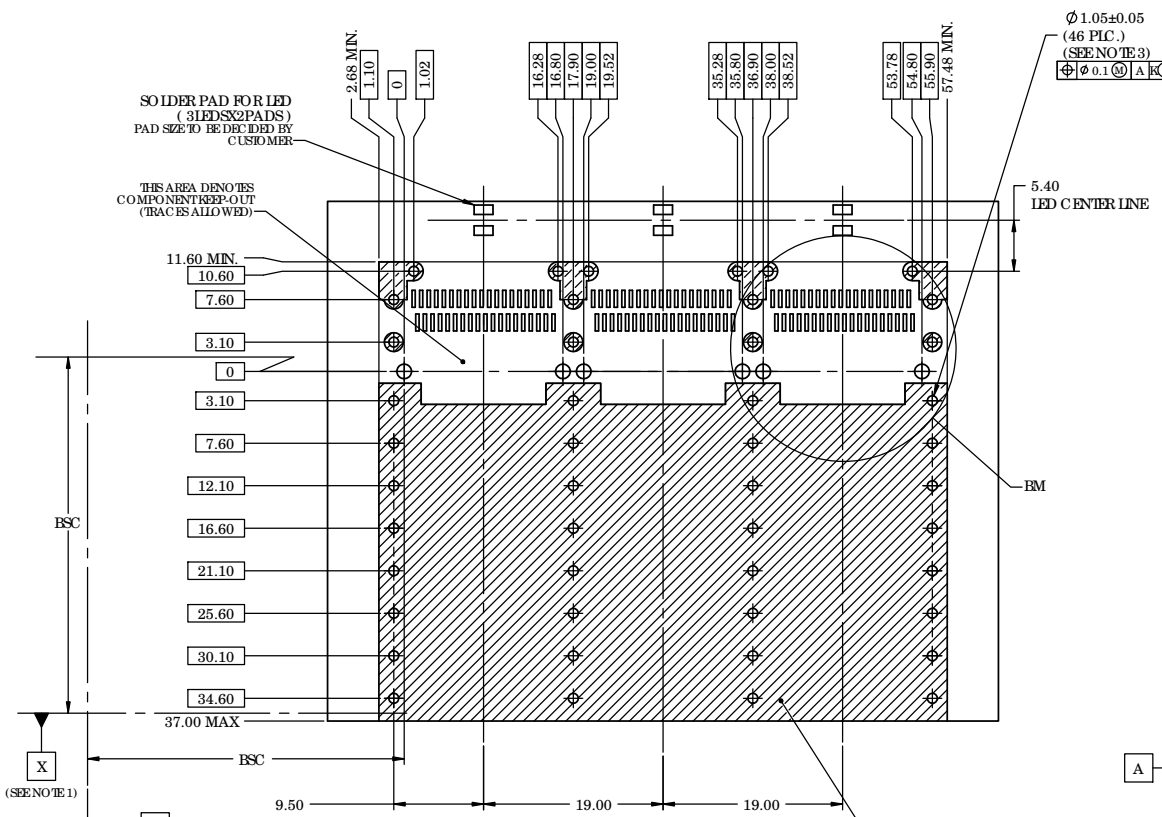
**RECOMMENDED HO ST PCB BOARD  
SINGLE LEVEL MOUNTING LAYOUT  
FOR SINGLE BARREL LIGHT PIPE  
(COMPONENT SIDE OF BOARD)**

**NOTES:**

1. DATUM X AND Y ESTABLISHED BY CUSTOMER'S FIDUCIAL
2. LOCATION OF EDGE OF PCB IS APPLICATION SPECIFIC.
3. FINISHED HOLE SIZE



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETER TOLERANCES ARE: DECIMALS .XX ± .10 .X ± .25 ANGLES ± 1°		APPROVALS	DATE	<b>Amphenol High Speed Interconnects</b> A Division of Amphenol Corp. www.amphenol-highspeed.com	
MATERIAL AND FINISH		DRAWN Z.LJ	MAY 23/08		
REF.		DESIGNED Z.LJ	MAY 23/08	TITLE <b>QSFP 1x3 CAGE BEHIND BEZEL WITH HEATSINK, CLIP AND LIGHT PIPE</b>	
CODE IDENT. NO.		CHECKED			
		QA APP'D		SIZE C	DWG. NO. P-U90-G3X1-1XXX
		IE APP'D		SCALE 2:1	PROJECT PROJECT
		DWG APP'D A.GREEN	DEC.5.07		SHEET 7 OF 11



**RECOMMENDED HOST PCB BOARD  
BEHIND BEZEL BELLY TO BELLY LAYOUT  
FOR SINGLE BARREL LIGHT PIPE  
(COMPONENT SIDE OF BOARD)**

**3.20±0.32  
FOR BELLY TO BELLY APPLICATION**

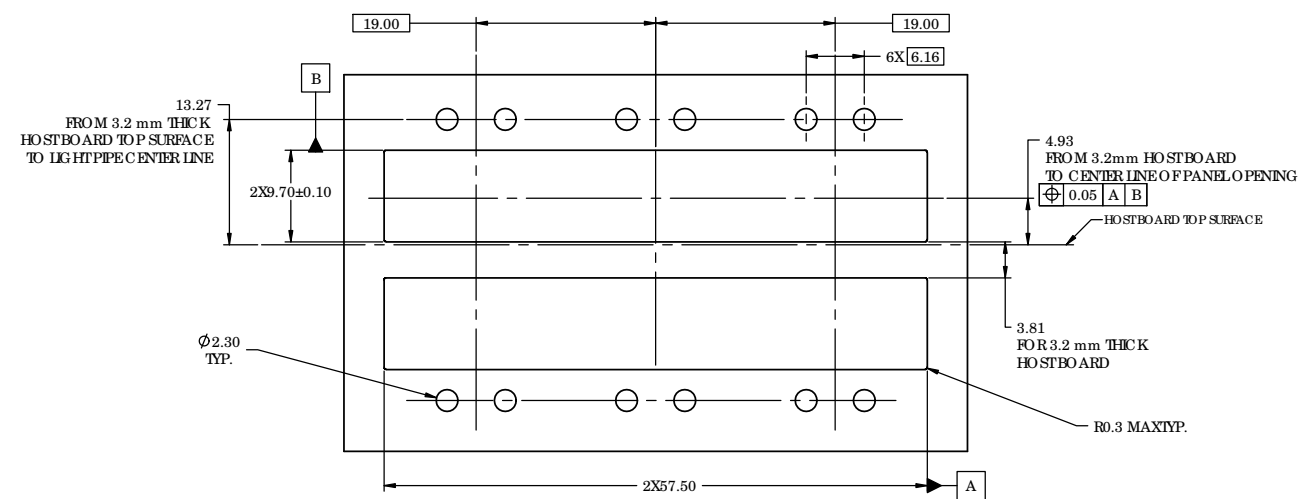
**NOTES:**

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

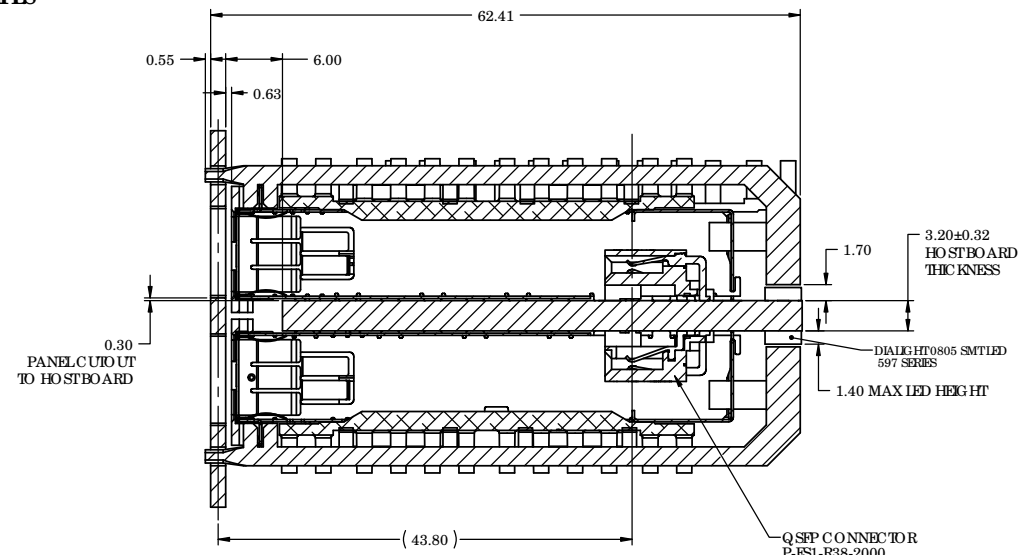
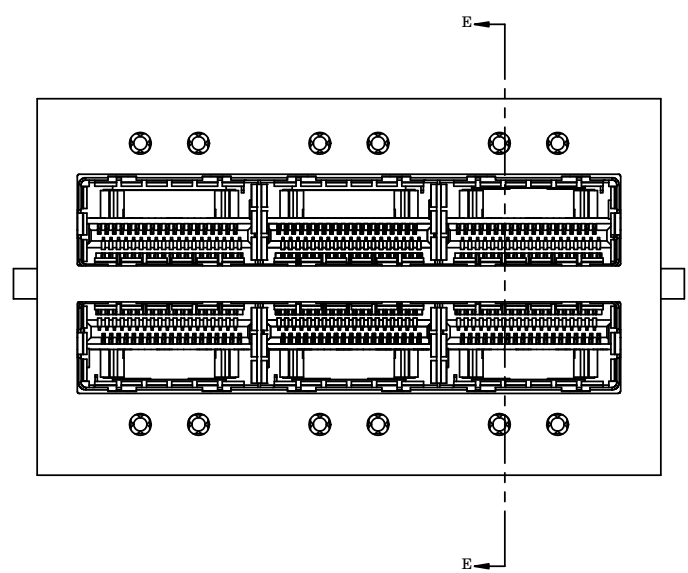


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DECIMALS	ANGLES	DRAWN Z.LJ	MAY 23/08		
.XX ±.10	± 1°	DESIGNED Z.LJ	MAY 23/08	TITLE <b>QSFP 1x3 CAGE BEHIND BEZEL WITH HEATSINK, CLIP AND LIGHT PIPE</b>	
.X ±.25		CHECKED		SIZE C	DWG. NO. P-U90-G3X1-1XXX
MATERIAL AND FINISH		QA APP'D		SCALE 5:2	PROJECT PROJECT
REF.		IE APP'D		DWG APP'D A.GREEN	DEC.5.07
CODE IDENT. NO.		DWG APP'D A.GREEN	DEC.5.07	SCALE 5:2	PROJECT PROJECT
				SHEET 8 OF 11	





**PANEL CUT OUT FOR BEHIND BEZEL  
 BELLY TO BELLY OPTION  
 WITH ROUND LIGHT PIPES**

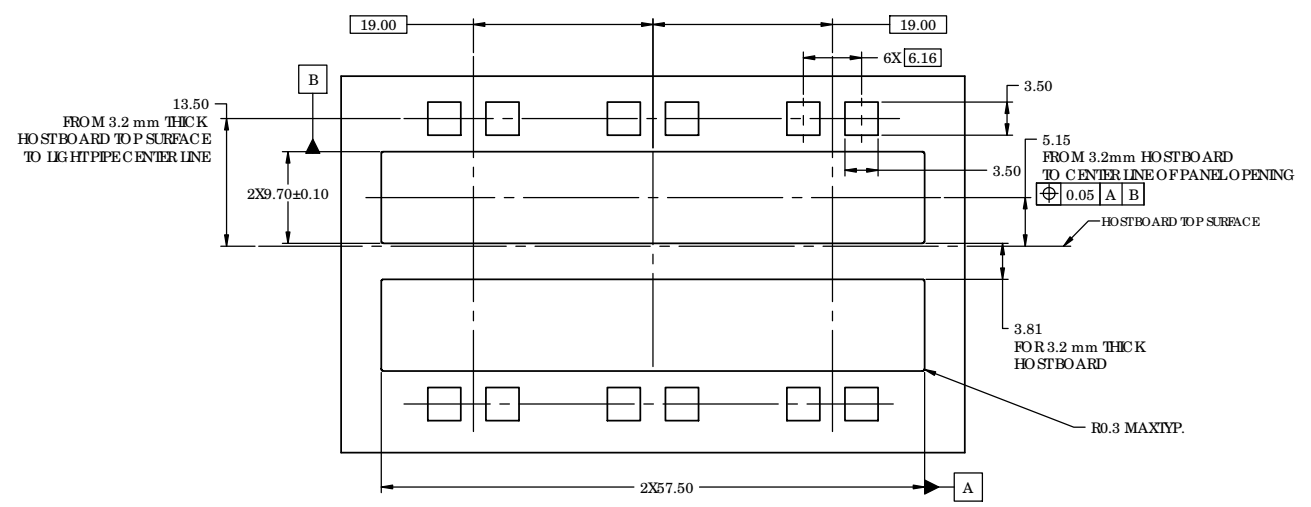


**PART NUMBER SHOWN  
 U90-G351-101A  
 (WITH ROUND LIGHT PIPE)**

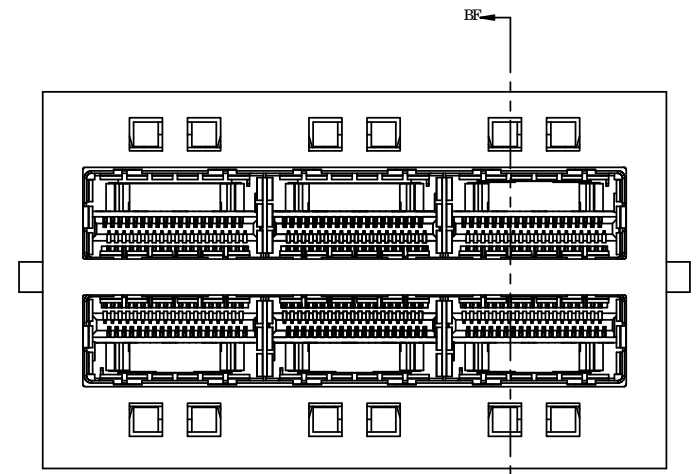


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETER TOLERANCES ARE:		APPROVALS	DATE	<b>Amphenol High Speed Interconnects</b> A Division of Amphenol Corp. www.amphenol-highspeed.com	
DECIMALS	ANGLES	DRAWN			
.XX ±.10	± 1°	Z.LJ	MAY 23/08	TITLE <b>QSFP 1x3 CAGE BEHIND BEZEL WITH HEATSINK, CLIP AND LIGHT PIPE</b>	
.X ±.25		DESIGNED	MAY 23/08		
MATERIAL AND FINISH		CHECKED		SIZE	DWG. NO.
REF.		QA APP'D		C	P-U90-G3X1-1XXX
CODE IDENT. NO.		IE APP'D		SCALE	PROJECT
		DWG APP'D	DEC.5.07	1:1	PROJECT
		A.GREEN			SHEET
					9 OF 11

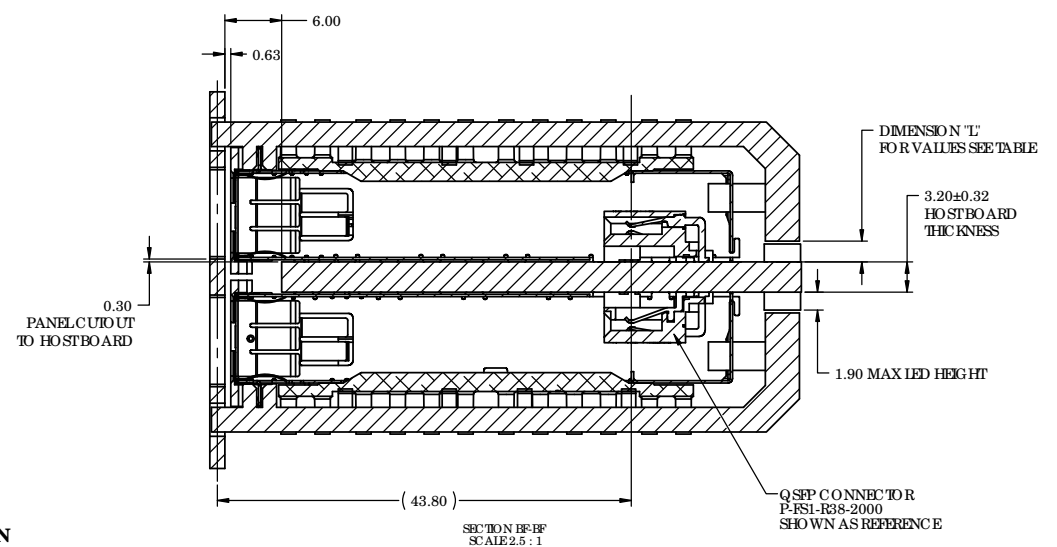
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**PANEL CUTOUT FOR  
BEHIND BEZEL  
BELLY TO BELLY OPTION  
WITH LIGHT PIPES**



**PART NUMBER SHOWN  
U90-G351-103A  
(WITH SQUARE LIGHT PIPE)**



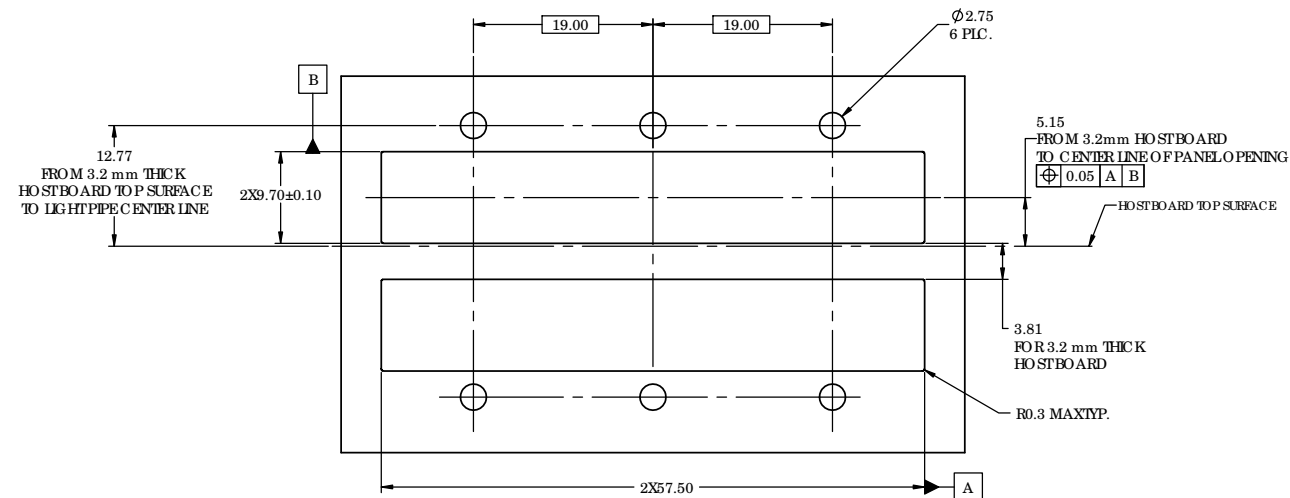
PART NUMBER	DIMENSION 'L'
U90-G 3X1-1X3X	2.20
U90-G 3X1-1X1X	1.45



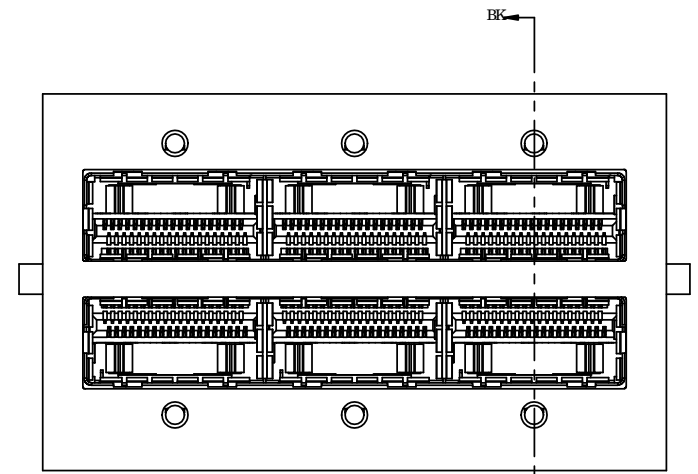
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETER TOLERANCES ARE:		APPROVALS	DATE
DECIMALS	ANGLES	DRAWN	MAY 23/08
.XX ±.10	± 1°	DESIGNED	MAY 23/08
.X ±.25		CHECKED	
MATERIAL AND FINISH		QA APP'D	
REF.		IE APP'D	
CODE IDENT. NO.		DWG APP'D	DEC.5.07
		A.GREEN	

<b>Amphenol High Speed Interconnects</b> A Division of Amphenol Corp. www.amphenol-highspeed.com		
TITLE <b>QSFP 1x3 CAGE BEHIND BEZEL WITH HEATSINK, CLIP AND LIGHT PIPE</b>		
SIZE C	DWG. NO. P-U90-G3X1-1XXX	REV. Y
SCALE 1:1	PROJECT PROJECT	SHEET 10 OF 11

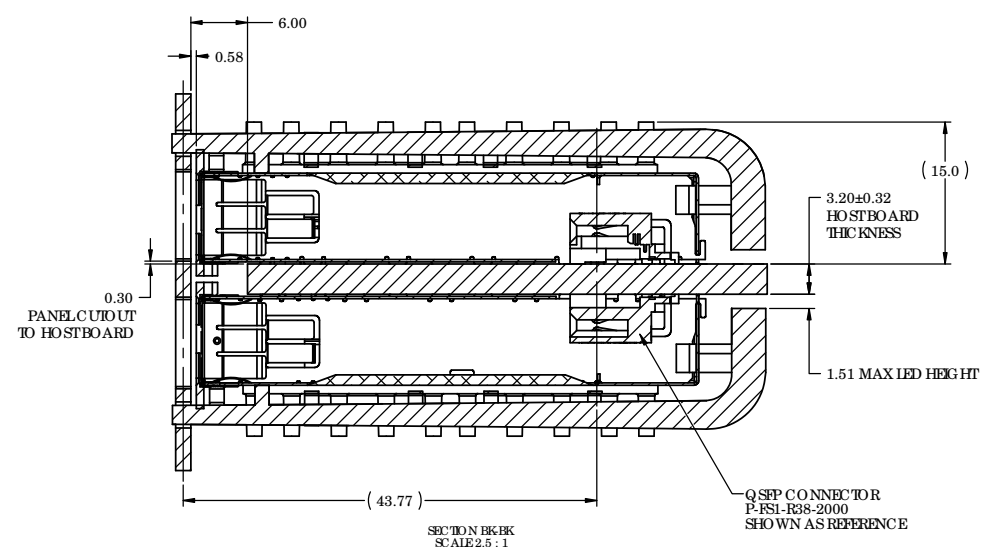
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**PANEL CUTOUT FOR  
BEHIND BEZEL  
BELLY TO BELLY OPTION  
WITH LIGHT PIPES**



**PART NUMBER SHOWN  
U90-G351-107A  
(WITH SINGLE BARREL ROUND LIGHT PIPE)**



SECTION BK-BK  
SCALE 2.5 : 1



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETER TOLERANCES ARE:		APPROVALS	DATE	<b>Amphenol High Speed Interconnects</b> A Division of Amphenol Corp. www.amphenol-highspeed.com	
DECIMALS	ANGLES	DRAWN Z.LJ	MAY 23/08		
.XX ± .10	± 1°	DESIGNED ZLJ	MAY 23/08	TITLE <b>QSFP 1x3 CAGE BEHIND BEZEL WITH HEATSINK, CLIP AND LIGHT PIPE</b>	
.X ± .25		CHECKED		SIZE C	DWG. NO. P-U90-G3X1-1XXX
MATERIAL AND FINISH		QA APP'D		SCALE 1:1	PROJECT PROJECT
REF.		IE APP'D		SHEET 11 OF 11	
CODE IDENT. NO.		DWG APP'D A.GREEN	DEC.5.07		

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