

AMPHENOL PART NUMBER CONFIGURATION

U90 - G 3X1 - 1XXX

HEAT SINK OPTION

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

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

PACKAGING OPTIONS

- 0 = TRAY PACKAGING (HEAT SINK & CLIP SHIPPED IN SEPARATE TRAY, IF ORDERED)
- A = TRAY PACKAGING, HEAT SINK & CLIP SHIPPED ASSEMBLED
- B = TRAY PACKAGING, HEAT SINK & 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 INLET SURFACE AT 1.45 mm OFF THE PCB

OPTIONAL DUST COVER

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

REV - DESCRIPT - DATE - APPRVD

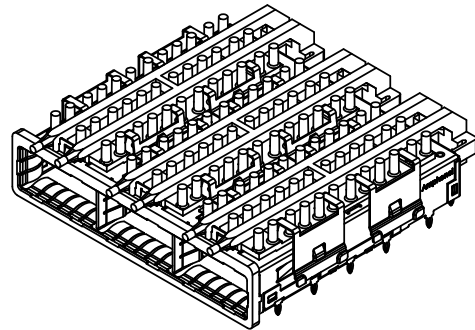
U - CORRECTED EMI GASKET NOTE --- SEP 29/10

V - CUTOUT POSITION REVISED --- JAN 03/12

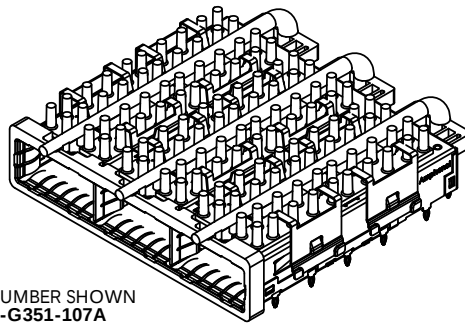
W - ADDED NEW OPTION --- JUN 19/12

Z - ADDED NEW OPTION "B" --- SEP 10/12

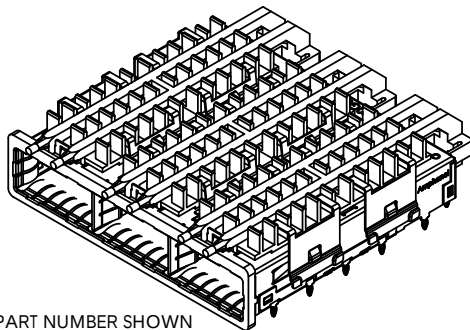
Y - ADDED NEW OPTION "K" --- OCT 15/12



PART NUMBER SHOWN
U90-G351-101A



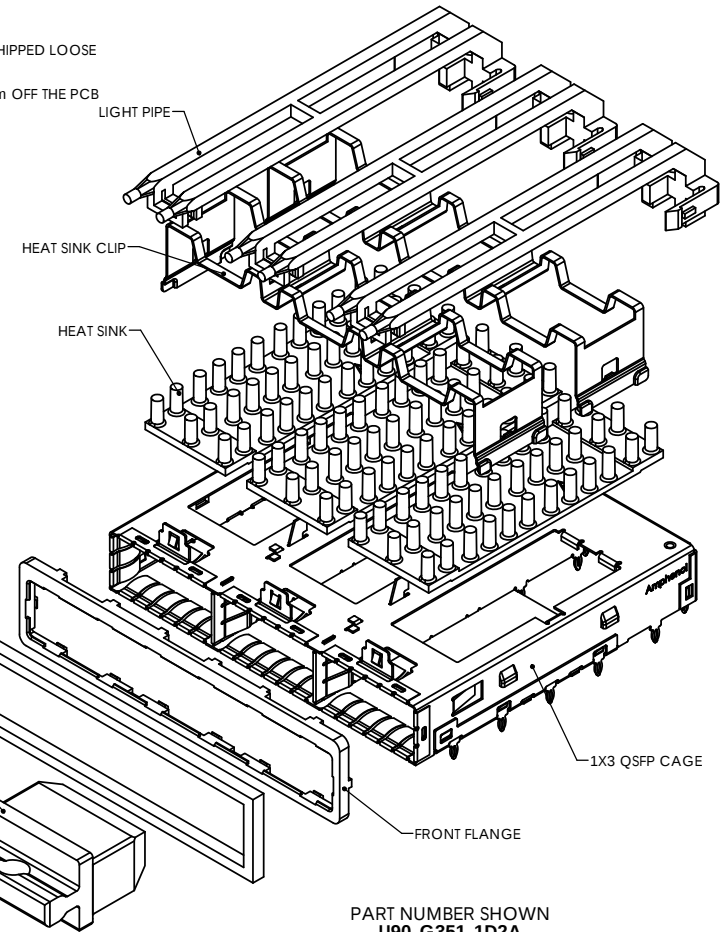
PART NUMBER SHOWN
U90-G351-107A



PART NUMBER SHOWN
U90-G3D1-101A

BEHIND BEZEL EMI
GASKET (OPTIONAL)
P/N: U90-1320-8010-BP

DUST COVER(OPTIONAL)
P/N: U90-1401-8000BP



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

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OR USED FOR MANUFACTURING PURPOSES WITHOUT PERMISSION FROM AMPHENOL CANADA CORP.



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN MILLIMETER
TOLERANCES ARE:

DECIMALS
.XX ± .10
.X ± .25

ANGLES
± 1°

MATERIAL AND FINISH

REF.

CODE IDENT. NO.

APPROVALS

DRAWN
Z.LJ

DESIGNED
Z.LJ

CHECKED

QA APP'D

IE APP'D

DWG APP'D

DATE

MAY 23/08

MAY 23/08

A.GREEN DEC.5.07

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

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

SIZE
C

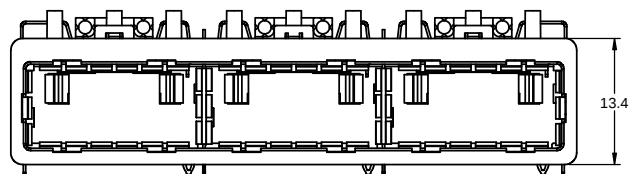
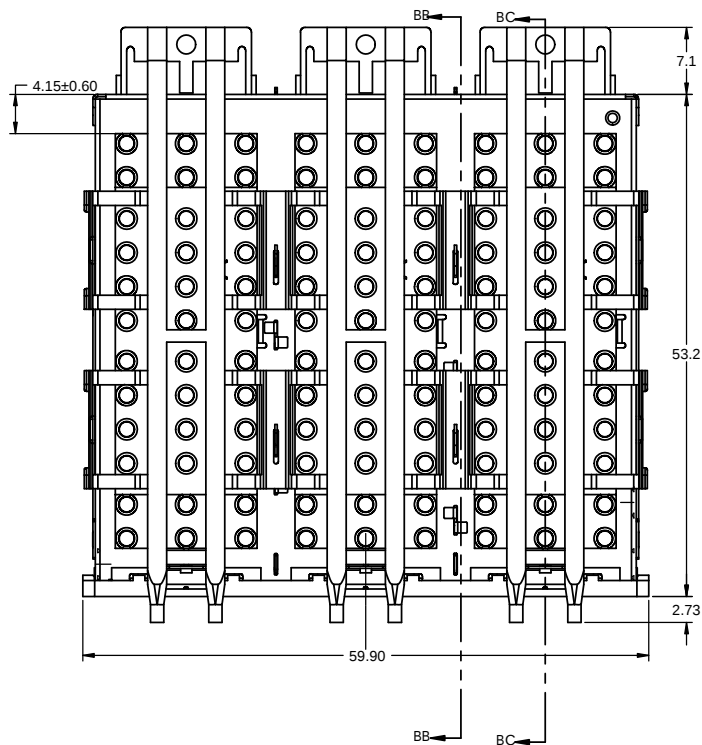
SCALE
2:1

PROJECT
PROJECT

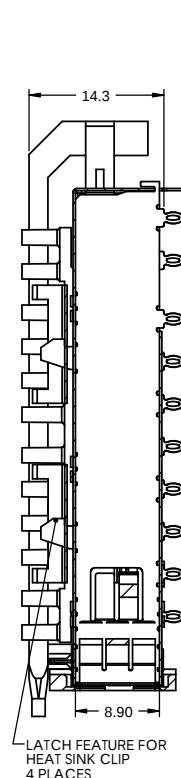
SHEET
1 OF 11

DWG. NO.
P-U90-G3X1-1XXX

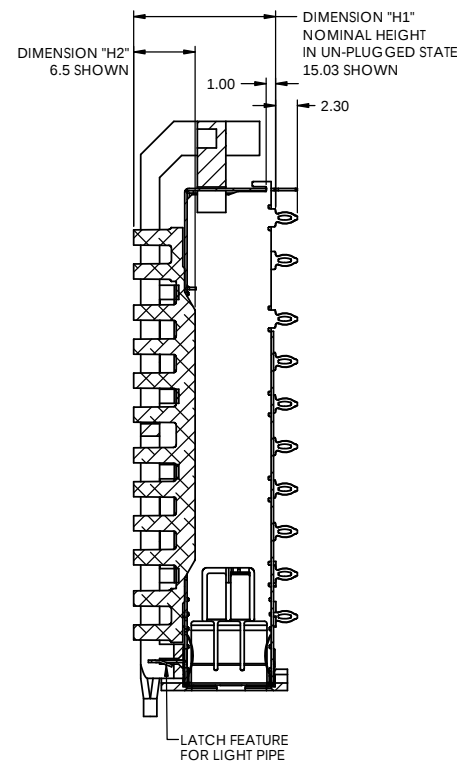
REV.
Y



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



SECTION BB-BB
SCALE 2.5 : 1



SECTION BC-BC
SCALE 2.5 : 1

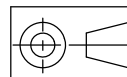
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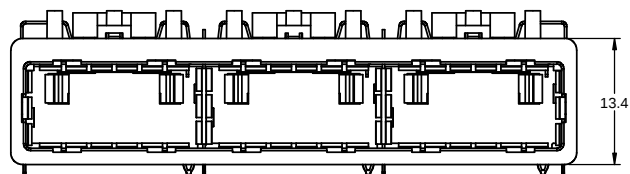
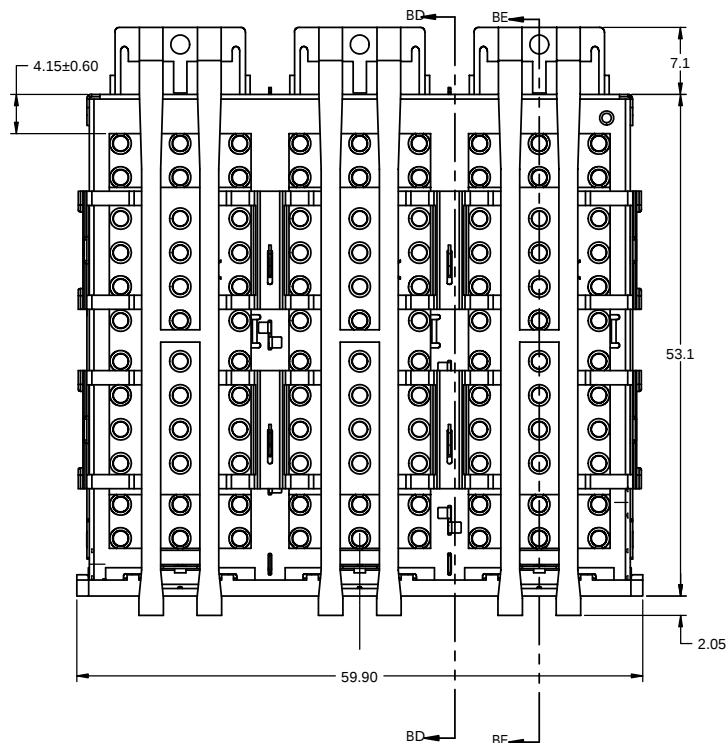
- MATERIAL:
CAGE AND EMI SPRINGS: COPPER ALLOY
FRONT FLANGE: ZINC DIE CAST
HEAT SINK CLIP: STEEL ALLOY
PIN-FIN STYLE HEAT SINK: ALUMINUM
PIN STYLE HEAT SINK: NICKEL PLATED ALUMINUM
CAGE PLATING: 3.81µm [100µ"] MIN. NICKEL.
LIGHT PIPE: GE LEXAN, OPTICAL GRADE
- CAGE IS INTENDED FOR USE WITH THE
QUAD SMALL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

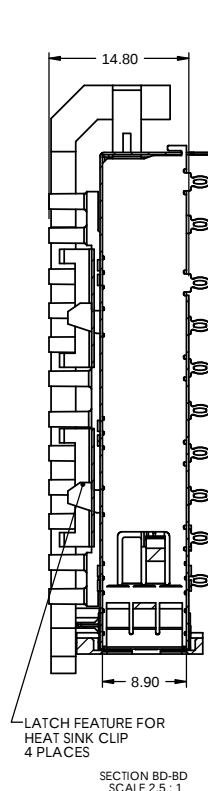


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETER TOLERANCES ARE:		APPROVALS	DATE	Amphenol High Speed Interconnects A Division of Amphenol Corp. www.amphenol-highspeed.com		
DECIMALS ANGLES .XX ± .10 ± 1° .X ± .25		DRAWN Z.LJ	MAY 23/08			
MATERIAL AND FINISH		DESIGNED ZLJ	MAY 23/08	TITLE QSFP 1x3 CAGE BEHIND BEZEL WITH HEATSINK, CLIP AND LIGHT PIPE		
		CHECKED				
		QA APP'D		SIZE C	DWG. NO. P-U90-G3X1-1XXX	REV. Y
REF.		IE APP'D		SCALE 2:1	PROJECT PROJECT	SHEET 2 OF 11
CODE IDENT. NO.		DWG APP'D A.GREEN	DEC.5,07			

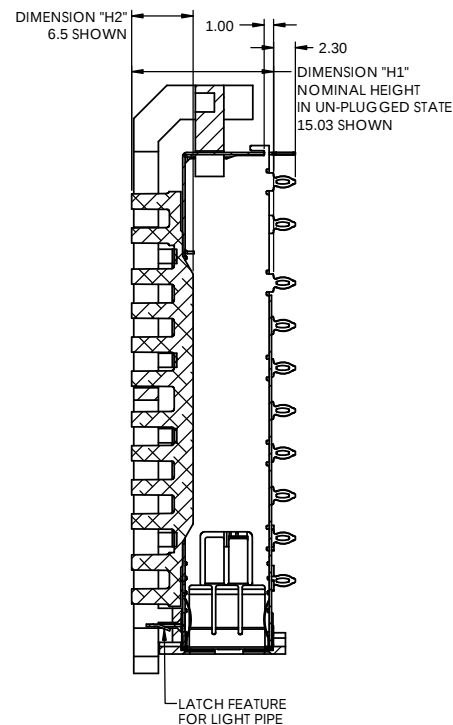




PART NUMBER SHOWN
U90-G351-103A
(WITH SQUARE LIGHT PIPE)



SECTION BD-BD
SCALE 2.5:1



SECTION BE-BE
SCALE 2.5:1

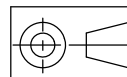
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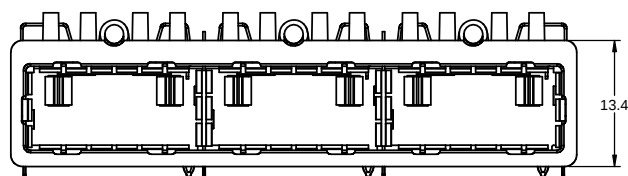
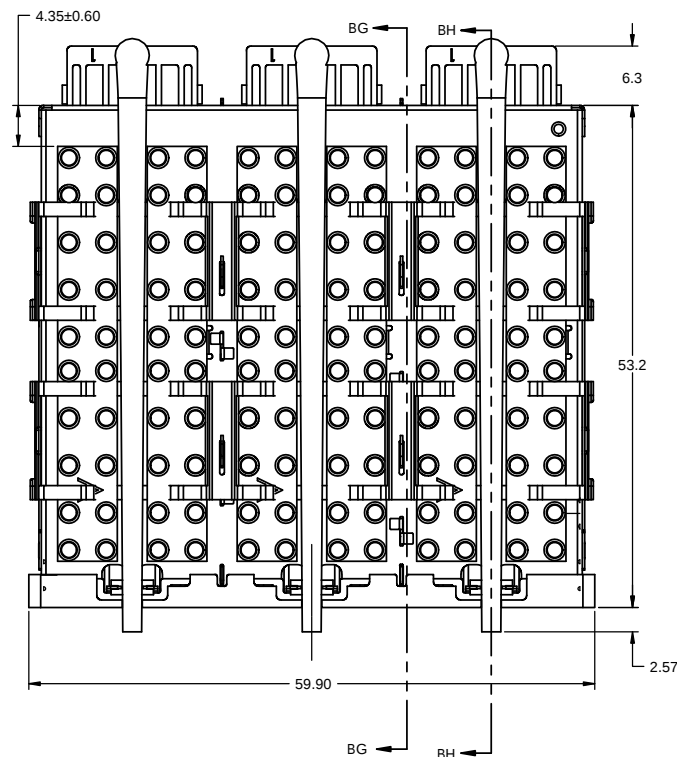
- MATERIAL:
CAGE AND EMI SPRINGS: COPPER ALLOY
FRONT FLANGE: ZINC DIE CAST
HEAT SINK CLIP: STEEL ALLOY
PIN-FIN STYLE HEAT SINK: ALUMINUM
PIN STYLE HEAT SINK: NICKEL PLATED ALUMINUM
CAGE PLATING: 3.81µm [100µ"] MIN. NICKEL.
LIGHT PIPE: GE LEXAN, OPTICAL GRADE
- CAGE IS INTENDED FOR USE WITH THE
QUAD SMALL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

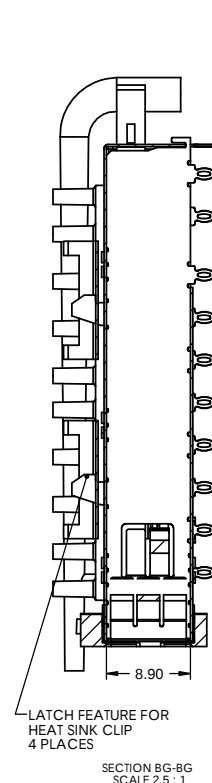


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETER TOLERANCES ARE:		APPROVALS	DATE	Amphenol High Speed Interconnects A Division of Amphenol Corp. www.amphenol-highspeed.com		
DECIMALS	ANGLES	DRAWN				
.XX ±.10	±1°	Z.LJ	MAY 23/08	TITLE QSFP 1x3 CAGE BEHIND BEZEL WITH HEATSINK, CLIP AND LIGHT PIPE		
.X ±.25		DESIGNED	MAY 23/08			
MATERIAL AND FINISH		CHECKED		SIZE	DWG. NO.	REV.
		QA APP'D		C	P-U90-G3X1-1XXX	Y
		IE APP'D		SCALE	PROJECT	SHEET
REF.		DWG APP'D	DEC.5,07	2:1	PROJECT	3 OF 11
CODE IDENT. NO.		A.GREEN				

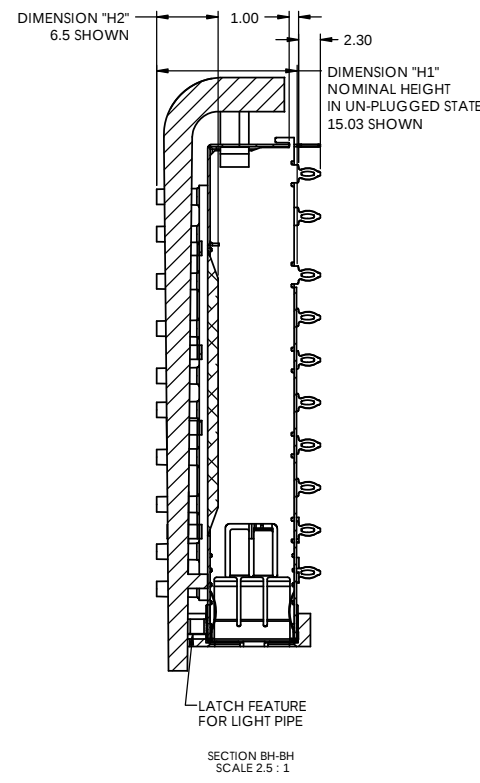




PART NUMBER SHOWN
U90-G351-107A
(WITH SINGLE BARREL
ROUND LIGHT PIPE)



SECTION BG-BG
SCALE 2.5 : 1



SECTION BH-BH
SCALE 2.5 : 1

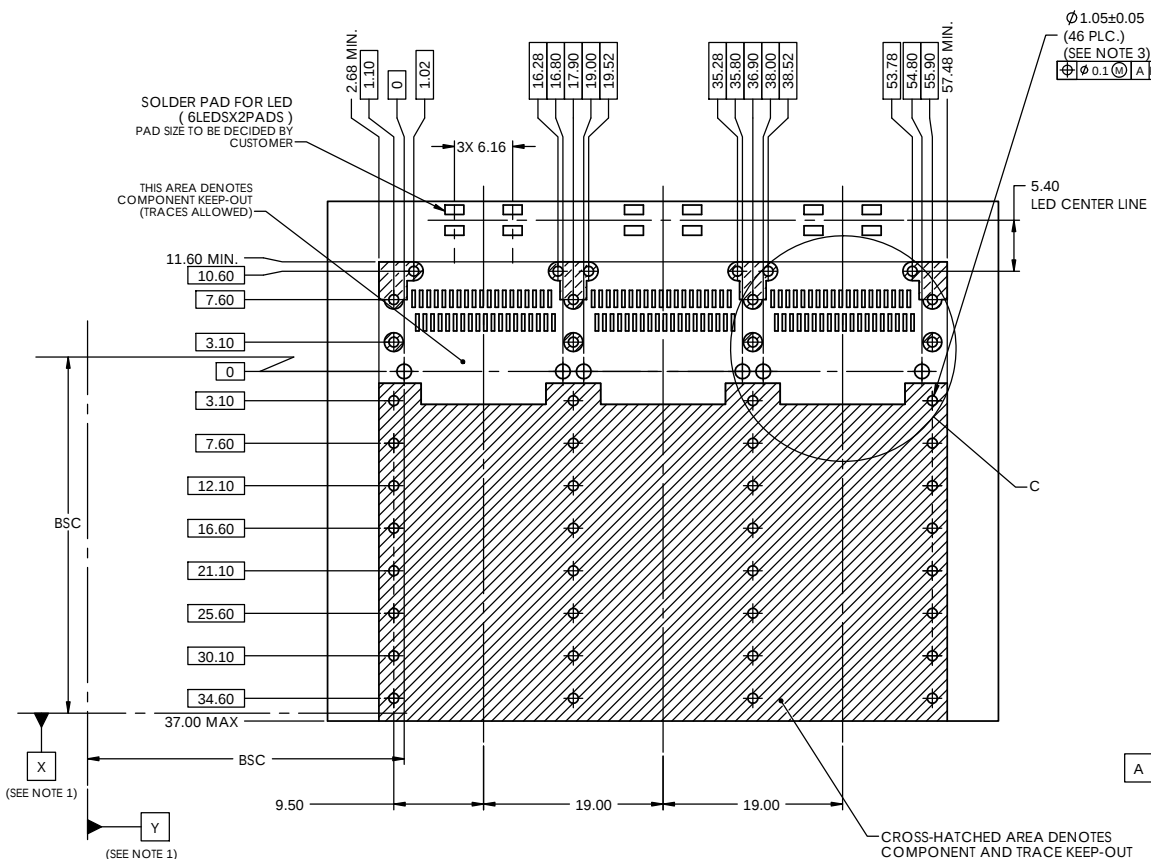
NOTES:

- 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

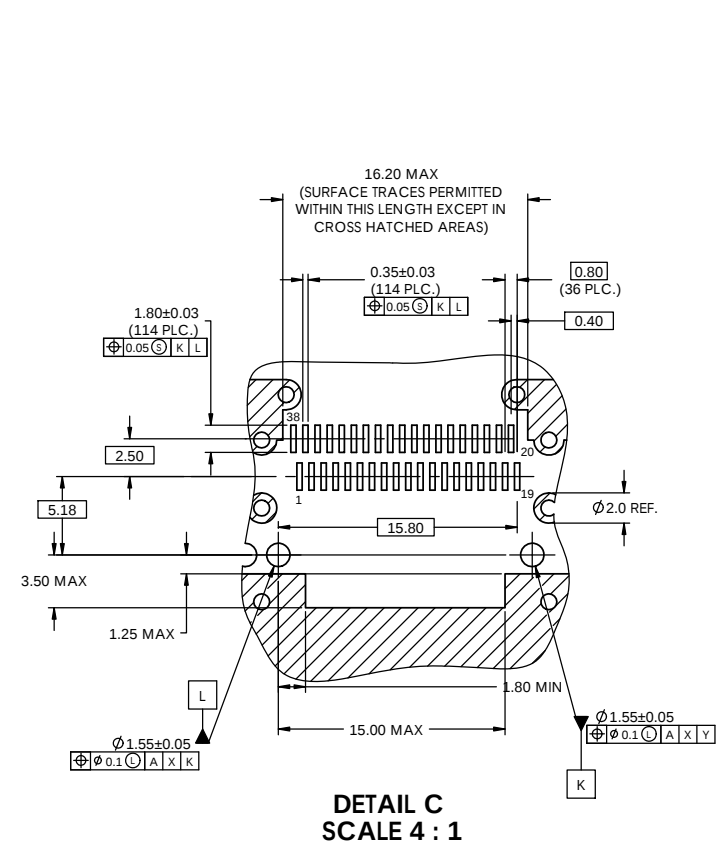


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETER TOLERANCES ARE:		APPROVALS	DATE	Amphenol High Speed Interconnects A Division of Amphenol Corp. www.amphenol-highspeed.com		
		DRAWN Z.LJ	MAY 23/08			
DECIMALS .XX ± .10 .X ± .25	ANGLES ± 1°	DESIGNED ZLJ	MAY 23/08	TITLE QSFP 1x3 CAGE BEHIND BEZEL WITH HEATSINK,CLIP AND LIGHT PIPE		
MATERIAL AND FINISH		CHECKED				
		QA APP'D				
		IE APP'D				
REF.		DWG APP'D A.GREEN	DEC.5,07	SIZE C	DWG. NO. P-U90-G3X1-1XXX	REV. Y
CODE IDENT. NO.				SCALE 2:1	PROJECT PROJECT	SHEET 4 OF 11



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

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

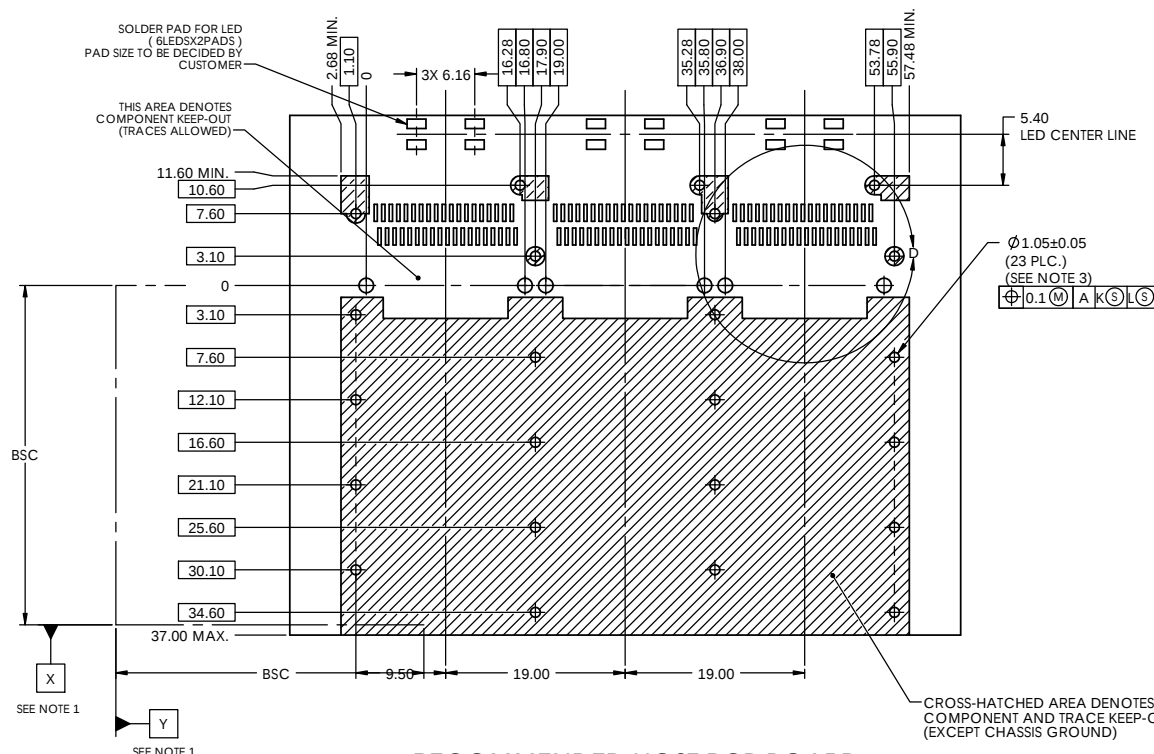


**DETAIL C
SCALE 4 : 1**

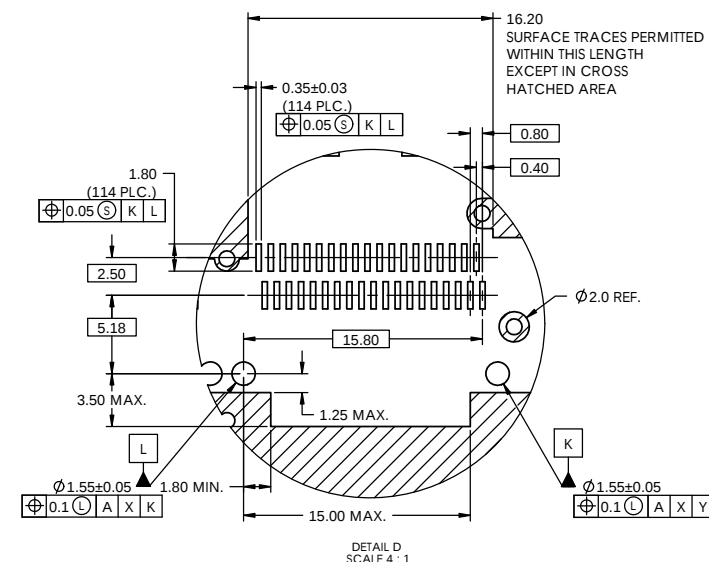
**3.20±0.32
FOR BELLY TO BELLY APPLICATION**



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



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



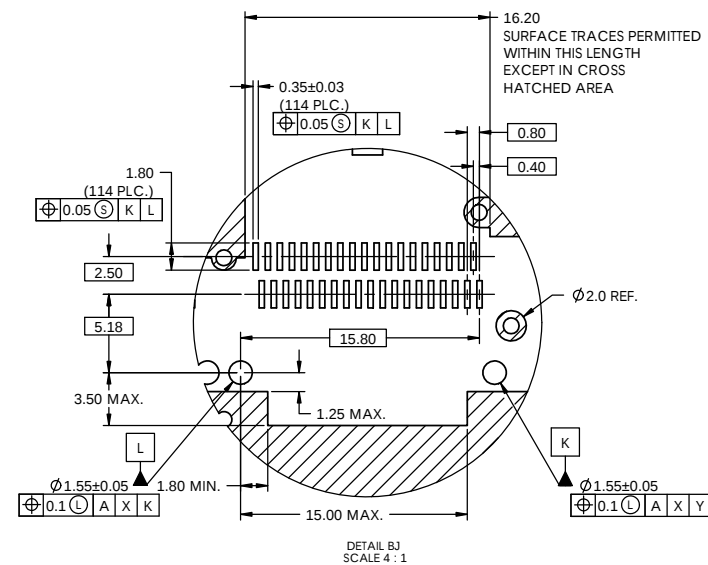
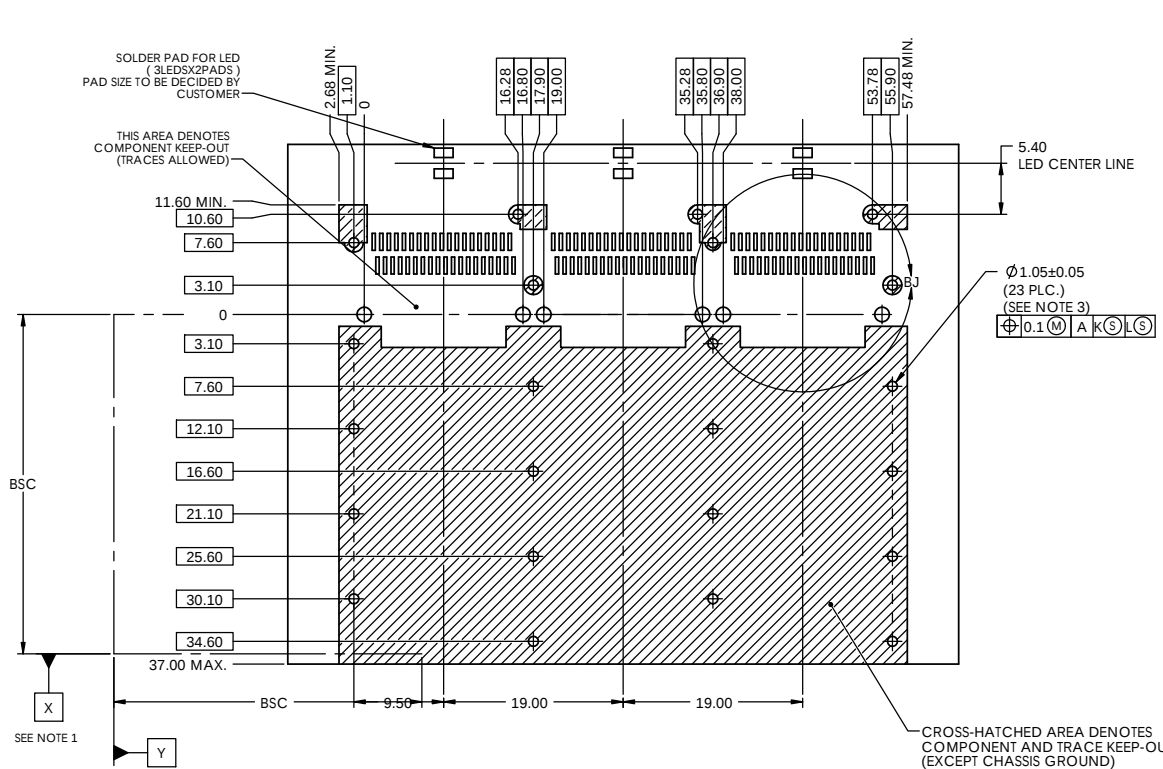
NOTES:

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

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETER TOLERANCES ARE:		APPROVALS	DATE	Amphenol High Speed Interconnects A Division of Amphenol Corp. www.amphenol-highspeed.com	
DECIMALS	ANGLES	DRAWN Z.LJ	MAY 23/08		
.XX $\pm$.10	$\pm 1^\circ$	DESIGNED ZLJ	MAY 23/08	TITLE QSFP 1x3 CAGE BEHIND BEZEL WITH HEATSINK, CLIP AND LIGHT PIPE	
.X $\pm$.25		CHECKED		SIZE C	DWG. NO. P-U90-G3X1-1XXX
MATERIAL AND FINISH		QA APP'D		SCALE 2:1	PROJECT PROJECT
REF.		IE APP'D			REV. Y
CODE IDENT. NO.		DWG APP'D A.GREEN	DEC.5/07		SHEET 6 OF 11

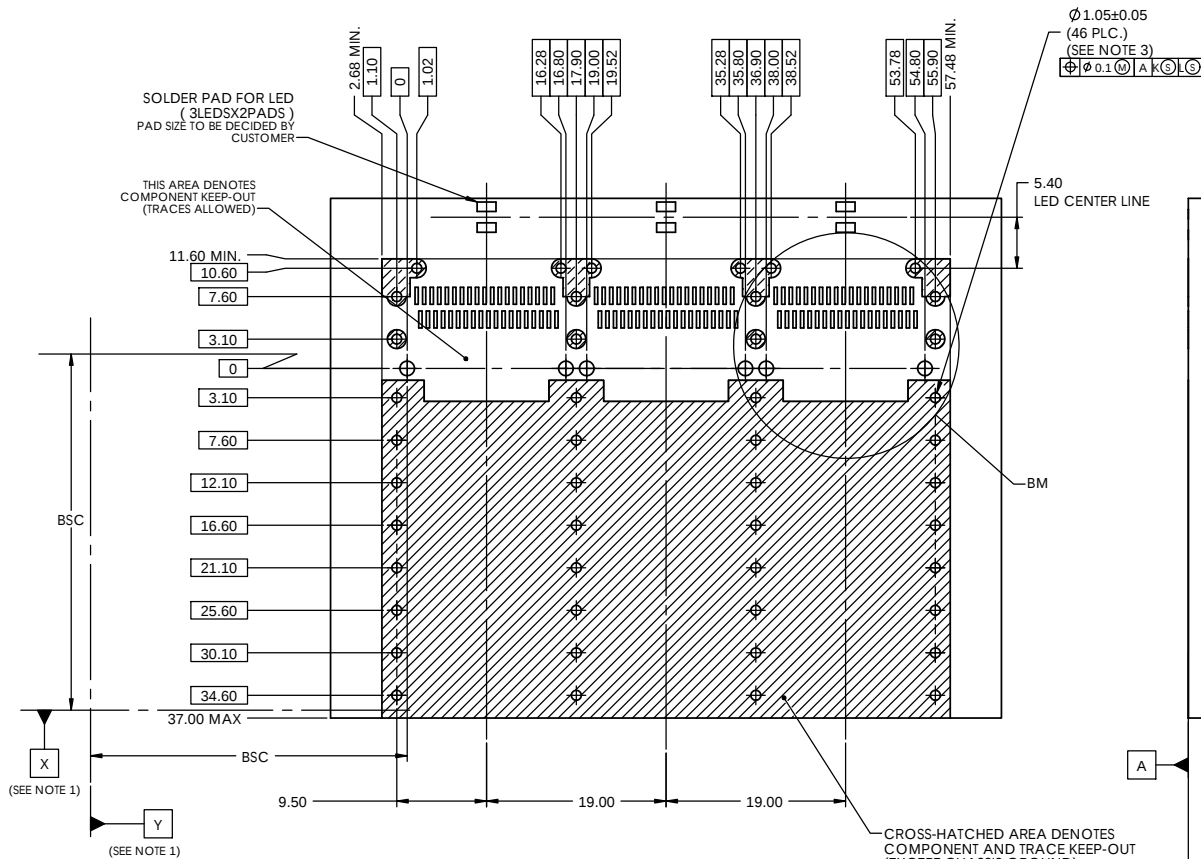


**RECOMMENDED HOST PCB BOARD
SINGLE LEVEL MOUNTING LAYOUT
FOR SINGLE BARREL LIGHT PIPE
(COMPONENT SIDE OF BOARD)**

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



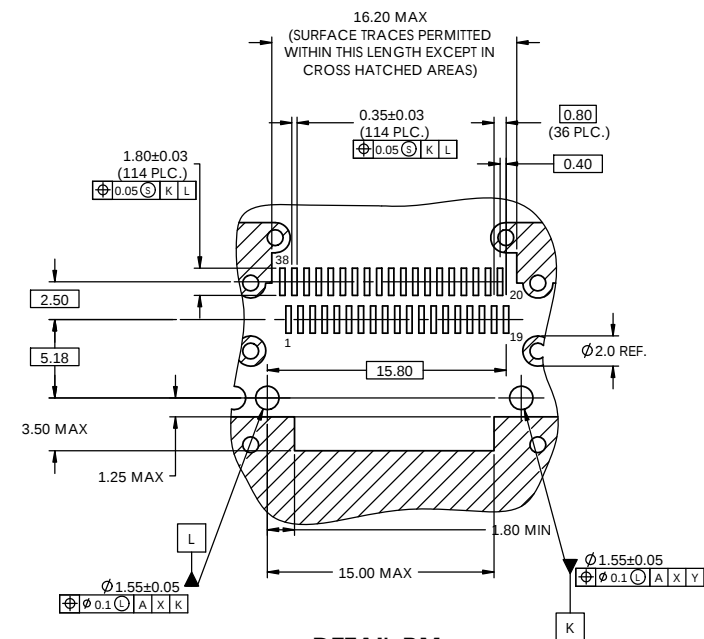
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETER TOLERANCES ARE:		APPROVALS	DATE	Amphenol High Speed Interconnects A Division of Amphenol Corp. www.amphenol-highspeed.com		
DECIMALS	ANGLES	DRAWN Z.LJ	MAY 23/08			
.XX ±.10	±1°	DESIGNED Z.LJ	MAY 23/08	TITLE QSFP 1x3 CAGE BEHIND BEZEL WITH HEATSINK, CLIP AND LIGHT PIPE		
.X ±.25		CHECKED				
MATERIAL AND FINISH		QA APP'D		SIZE C	DWG. NO. P-U90-G3X1-1XXX	REV. Y
REF.		IE APP'D		SCALE 2:1	PROJECT PROJECT	SHEET 7 OF 11
CODE IDENT. NO.		DWG APP'D A.GREEN	DEC.5/07			



RECOMMENDED HOST PCB BOARD
BEHIND BEZEL BELLY TO BELLY LAYOUT
FOR SINGLE 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.

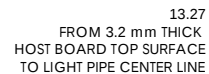


DETAIL BM
SCALE 4 : 1

3.20±0.32
FOR BELLY TO BELLY APPLICATION



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

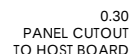


4.93
FROM 3.2mm HOST BOARD
TO CENTER LINE OF PANEL OPENING

— HOST BOARD TOP SURFACE

3.81
FOR 3.2 mm THICK
HOST BOARD

~ R0.3 MAXTYP.



62.41

0.55

6.00

0.63

1.70

3.20±0.32
HOST BOARD
THICKNESS

DIALIGHT 0805 SMT LED
597 SERIES

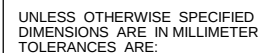
1.40 MAX LED HEIGHT

QSFP CONNECTOR
P-FS1-R38-2000
SHOWN AS REFERENCE

(43.80)

SECTION F-F
SCALE 2.5:1

SECTION E-E
SCALE 2.5 : 1



DECIMALS	
.XX	± .10
.X	± .25

ANGLES
 $\pm 1^\circ$

MATERIAL AND FINISH

REF.

CODE IDENT. NO.

APPROVALS

DRAWN
71.1

DESIGN
71.1

CHECKE

[illegible]

Keywords:

IE APP'D

DWG AP

DATE _____

MAY 22/09

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

08	TITLE	QSFP 1x3 CAGE BEHIND BEZEL WITH HEATSINK CLIP AND LIGHT PIPE
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	SIZE
--	------

C

7	SCALE	1
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/G. NO.

P-U90-G3X

PROJECT
PROJECT

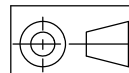
REV

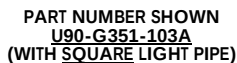
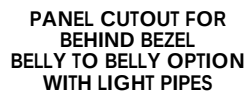
	Y
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SHEET
9 OF 11

DO NOT SCALE DRAWING

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U90-G3X1-1X 3 X	2.20
U90-G3X1-1X B X	1.45

A Division of Amphenol Corp. www.amphenol-highspeed.com

08	TITLE	QSFP 1x3 CAGE BEHIND BEZEL
		WITH HEATSINK CLIP AND LIGHT PIPE

SIZE C	DWG. NO. P-U90-G3X1-1XXX	REV. Y
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7	SCALE 1:1	PROJECT PROJECT	SHEET 10 OF 11
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MATERIAL AND FINISH

CODE IDENT. NO.

DRAWN

ZLJ

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OWG APP'D

MAY 22/

DEC 5 0

SIZE	C
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7	SCALE	1
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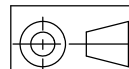
U90-G3

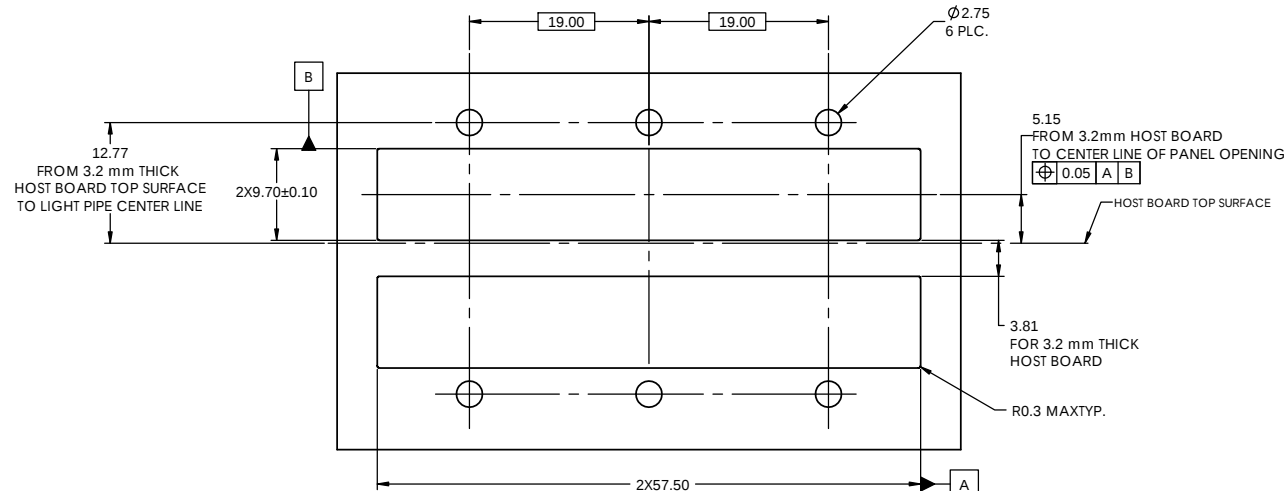
PROJECT	
PROJECT	

	REV. Y
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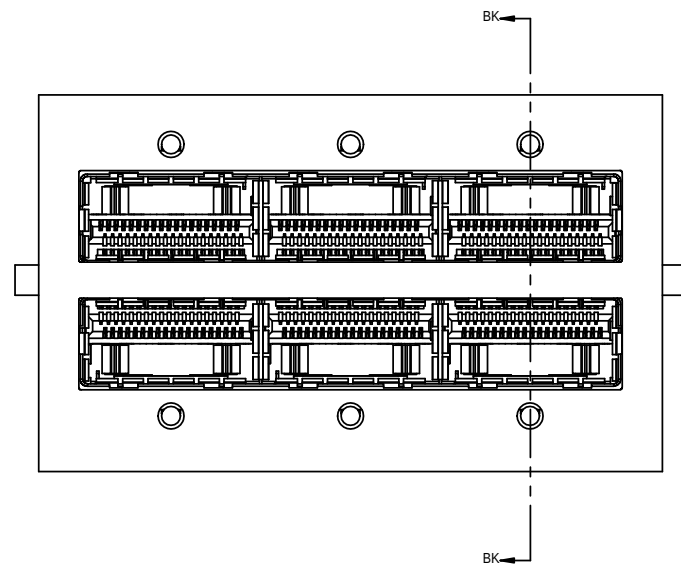
SHEET
10 OF 11

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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)



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