AMPHENOL PART NUMBER CONFIGURATION
U90 - A 1 X 1 - 1 X 0 X

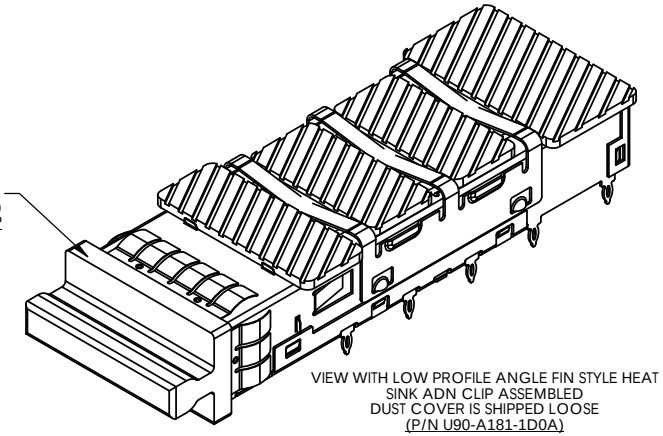
HEAT SINK OPTION
8 = ANODIZED, BLACK
9 = NICKEL PLATED

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

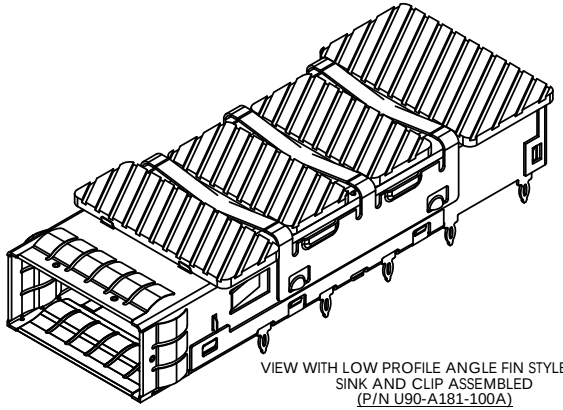
OPTIONAL DUST COVER
0 = WITHOUT DUST COVER
D = WITH DUST COVER SHIPPED AS LOOSE PIECE)

REVISIONS

REV.	ECN	DESCRIPTION	DATE	APPROVED
A		INITIAL RELEASE	NOV 13/10	Z.L.
B		RAISED HEAT SINK POSITION	NOV 24/10	Z.L.
C		2.5 mm DIMENSION ADDED	FEB 06/11	Z.L.
D		HEAT SINK PLATING OPTION ADDED	FEB 22/11	Z.L.
E		HEAT SINK PLATING OPTION MODIFIED	AUG 26/11	Z.L.
F		ADD DIMENSIONS IN PAGE 2	SEP 12/12	Z.L.
G		UPDATED TOLERANCE	AUG 19/15	J.S



VIEW WITH LOW PROFILE ANGLE FIN STYLE HEAT SINK ADN CLIP ASSEMBLED
DUST COVER IS SHIPPED LOOSE
(P/N U90-A181-1D0A)



VIEW WITH LOW PROFILE ANGLE FIN STYLE HEAT SINK AND CLIP ASSEMBLED
(P/N U90-A181-100A)

DO NOT SCALE DRAWING

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS
TOLERANCES ARE:
DECIMALS: X.X ± 0.15, X.XX ± 0.10
ANGLES: ± 0.5°
MATERIAL AND FINISH: SEE NOTE 1
REF.
CODE IDENT. NO. 03554

APPROVALS		DATE
DRAWN	ZLJ	NOV 13/10
DESIGNED	ZLJ	NOV 13/10
CHECKED	J.SI	NOV 13/10
QA APPD		
IE APP'D		
DWG APP'D	A.GREEN	NOV 13/10

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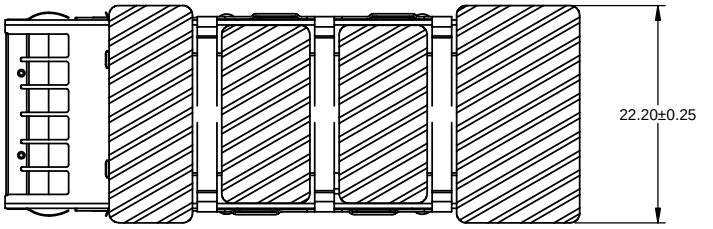
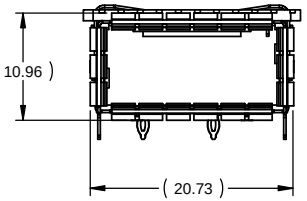
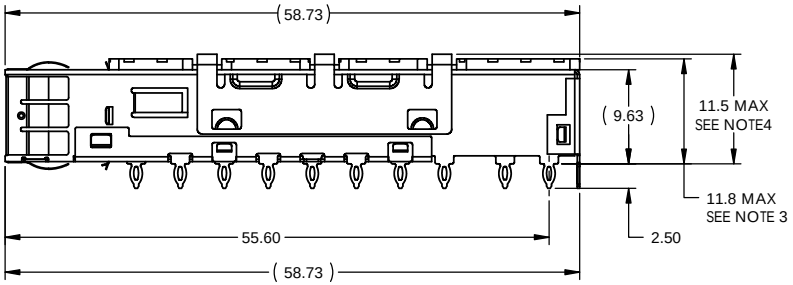
TITLE: QSFP CAGE ASSEMBLY THRU THE BEZEL, WITH LOW PROFILE ANGLE FIN STYLE HEAT SINK

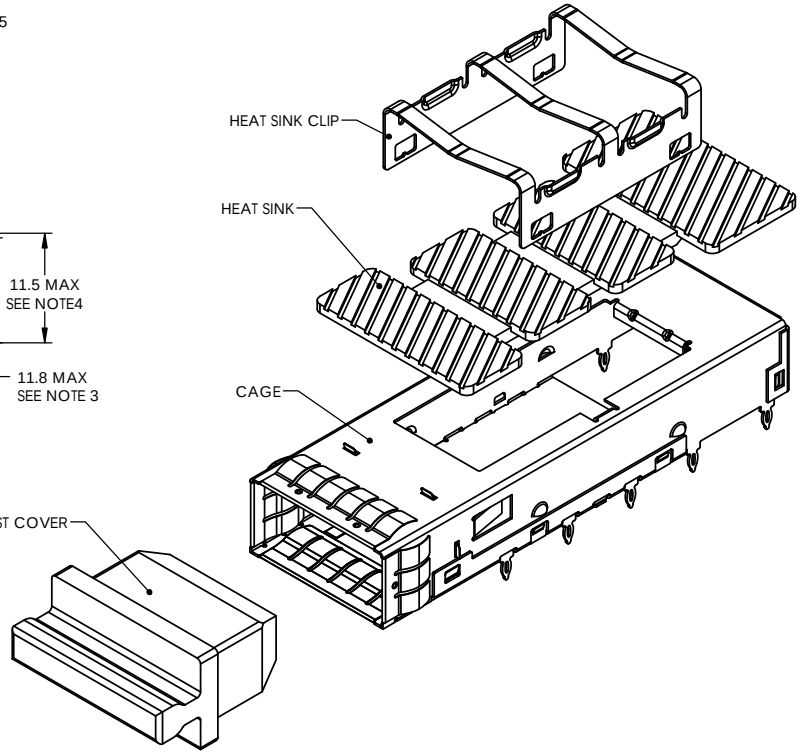
SIZE A3 | DWG. NO. P-U90-A1X1-1X0X | REV. G
SCALE 2:1 | PROJECT | SHEET 1 OF 5

REVISIONS				
REV.	ECN	DESCRIPTION	DATE	APPROVED
A		INITIAL RELEASE	NOV 13/10	Z.L.
B		RAISED HEAT SINK POSITION	NOV 24/10	Z.L.
C		2.5 mm DIMENSION ADDED	FEB 06/11	Z.L.
D		HEAT SINK PLATING OPTION ADDED	FEB 22/11	Z.L.
E		HEAT SINK PLATING OPTION MODIFIED	AUG 26/11	Z.L.
F		ADD DIMENSIONS IN PAGE 2	SEP 12/12	Z.L.
G		UPDATED TOLERANCE	AUG 19/15	J.S









NOTES:

1. CAGE AND EMI SPRINGS MATERIAL: COPPER ALLOY
   CAGE PLATING: 3.81µm [100µ"] MIN. NICKEL.
   HEAT SINK CLIP MATERIAL: STEEL ALLOY
   HEAT SINK MATERIAL: ALUMINUM
   DUST COVER MATERIAL: CONDUCTIVE ELASTOMER
2. CAGE IS INTENDED TO BE COMPLIANT WITH THE QUAD SMALL FORM-FACTOR PLUGGABLE (QSFP)TRANSCEIVER SPECIFICATION REVISION 1.0.
3. DIMENSION 11.8 MAX REPRESENTS THE DISTANCE FROM THE TOP OF THE PCB TO THE TOP OF THE HEAT SINK WHEN QSFP PLUG IS ENGAGED (PLUGGED IN).
4. DIMENSION 11.5 MAX REPRESENTS THE DISTANCE FROM THE TOP OF THE PCB TO THE TOP OF THE HEAT SINK CLIP WHEN QSFP PLUG IS ENGAGED (PLUGGED IN).

DO NOT SCALE DRAWING

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE:
DECIMALS X.X ± 0.25, X.XX ± 0.15
ANGLES ± 0.5°
MATERIAL AND FINISH: SEE NOTE 1
REF.
CODE IDENT. NO. 03554

APPROVALS		DATE
DRAWN	ZLJ	NOV 13/10
DESIGNED	ZLJ	NOV 13/10
CHECKED	J.SI	NOV 13/10
QA APPD		
IE APP'D		
DWG APP'D	A.GREEN	NOV 13/10

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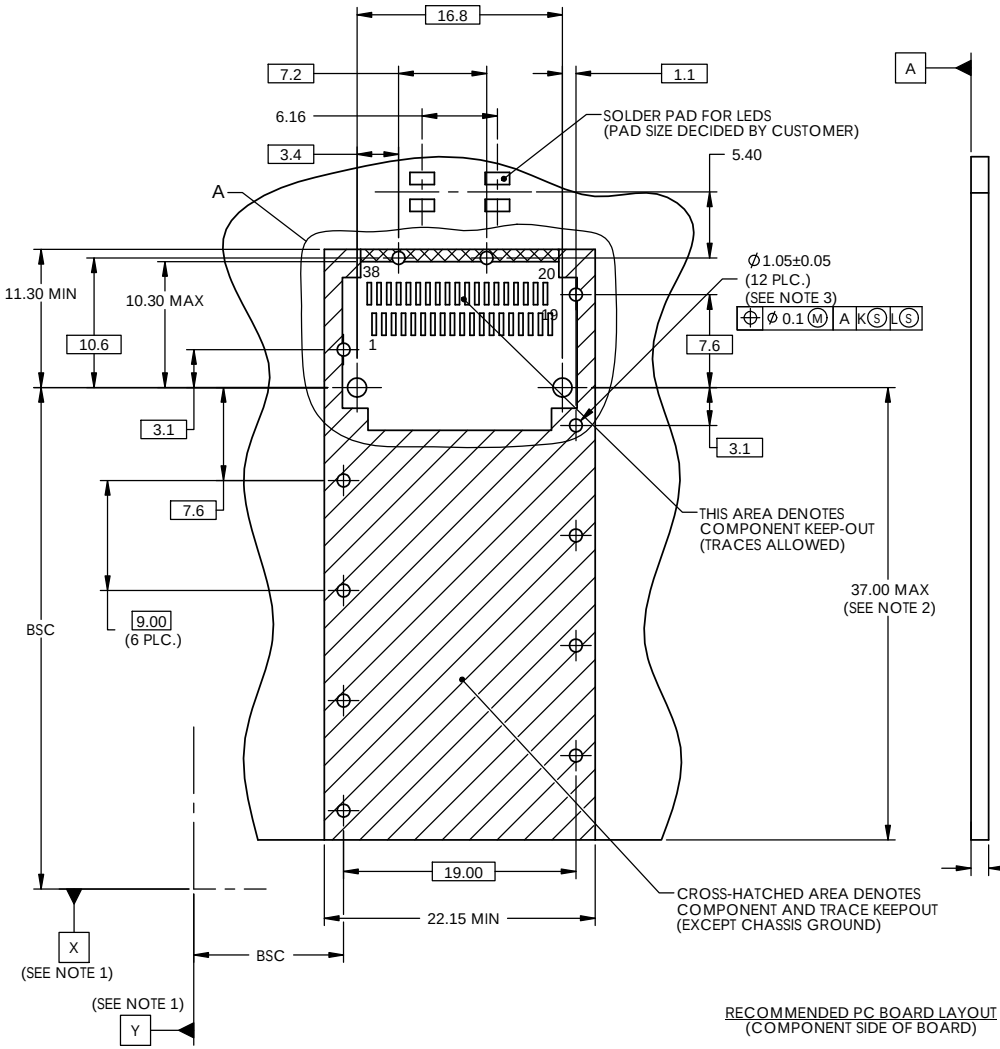
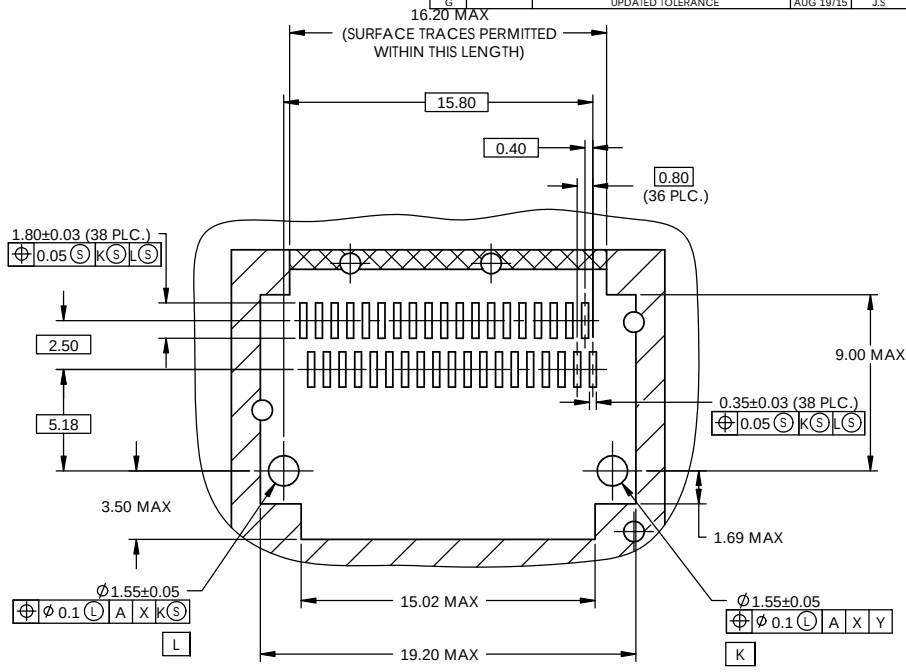
TITLE: QSFP CAGE ASSEMBLY THRU THE BEZEL, WITH LOW PROFILE ANGLE FIN STYLE HEAT SINK

SIZE A3 | DWG. NO. P-U90-A1X1-1X0X | REV. G
SCALE 2:1 | PROJECT | SHEET 2 OF 5

REVISIONS				
REV.	ECN	DESCRIPTION	DATE	APPROVED
A		INITIAL RELEASE	NOV 13/10	Z.L.
B		RAISED HEAT SINK POSITION	NOV 24/10	Z.L.
C		2.5 mm DIMENSION ADDED	FEB 06/11	Z.L.
D		HEAT SINK PLATING OPTION ADDED	FEB 22/11	Z.L.
E		HEAT SINK PLATING OPTION MODIFIED	AUG 26/11	Z.L.
F		ADD DIMENSIONS IN PAGE 2	SEP 12/12	Z.L.
G		UPDATED TOLERANCE	AUG 19/15	J.S





DETAIL A
SCALE 4 : 1

1.44 MIN

RECOMMENDED PC BOARD LAYOUT
(COMPONENT SIDE OF BOARD)

NOTES:

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

DO NOT SCALE DRAWING

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS
TOLERANCES ARE:
DECIMALS X.X ± 0.15, X.XX ± 0.10
ANGLES ± 0.5°
MATERIAL AND FINISH: SEE NOTE 1
REF.
CODE IDENT. NO. 03554

APPROVALS		DATE
DRAWN	ZLJ	NOV 13/10
DESIGNED	ZLJ	NOV 13/10
CHECKED	J.SI	NOV 13/10
Q.A. APP'D		
I.E. APP'D		
DWG APP'D	A.GREEN	NOV 13/10

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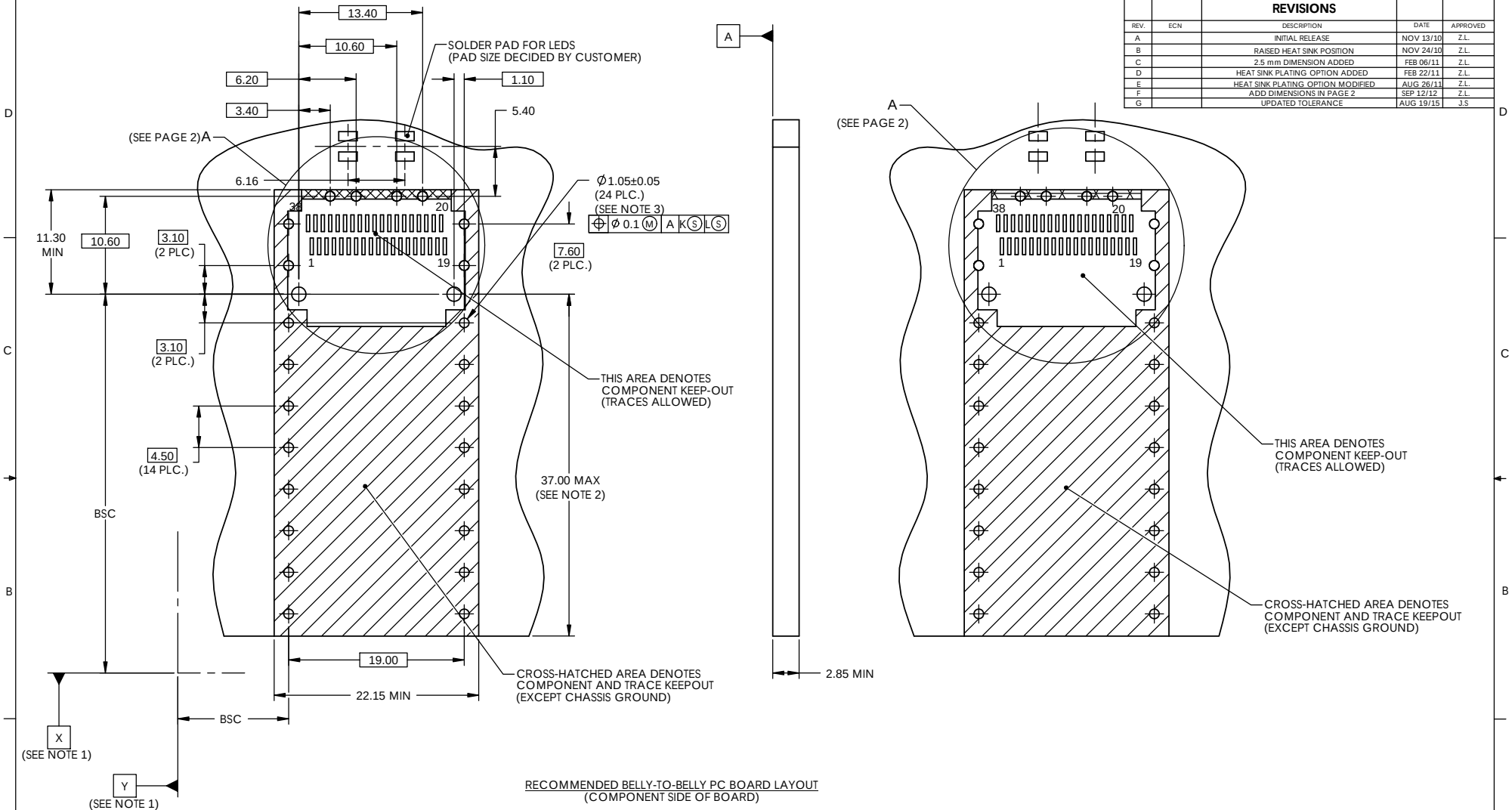
TITLE: QSFP CAGE ASSEMBLY
THRU THE BEZEL, WITH LOW PROFILE
ANGLE FIN STYLE HEAT SINK

SIZE A3 | DWG. NO. P-U90-A1X1-1X0X | REV. G
SCALE 5:2 | PROJECT | SHEET 3 OF 5



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

REVISIONS

REV.	ECN	DESCRIPTION	DATE	APPROVED
A		INITIAL RELEASE	NOV 13/10	Z.L.
B		RAISED HEAT SINK POSITION	NOV 24/10	Z.L.
C		2.5 mm DIMENSION ADDED	FEB 06/11	Z.L.
D		HEAT SINK PLATING OPTION ADDED	FEB 22/11	Z.L.
E		HEAT SINK PLATING OPTION MODIFIED	AUG 26/11	Z.L.
F		ADD DIMENSIONS IN PAGE 2	SEP 12/12	Z.L.
G		UPDATED TOLERANCE	AUG 19/15	J.S

NOTES:

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

DO NOT SCALE DRAWING

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS
TOLERANCES ARE:
DECIMALS: X.X ± 0.15, X.XX ± 0.10
ANGLES: ± 0.5°
MATERIAL AND FINISH: SEE NOTE 1
REF.
CODE IDENT. NO. 03554

APPROVALS		DATE
DRAWN	ZLJ	NOV 13/10
DESIGNED	ZLJ	NOV 13/10
CHECKED	J.SI	NOV 13/10
QA APPD		
IE APP'D		
DWG APP'D	A.GREEN	NOV 13/10

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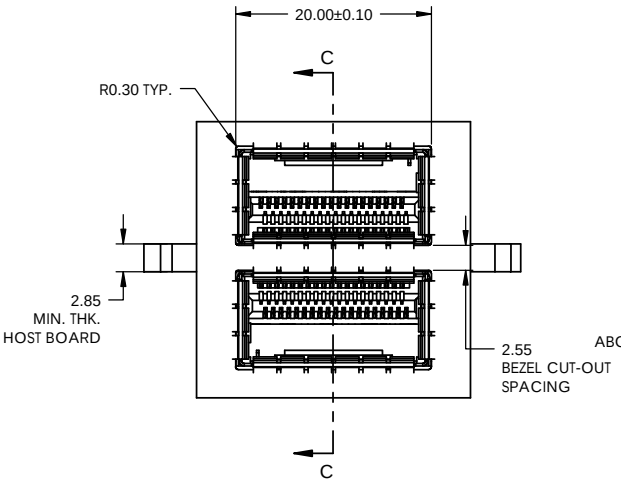
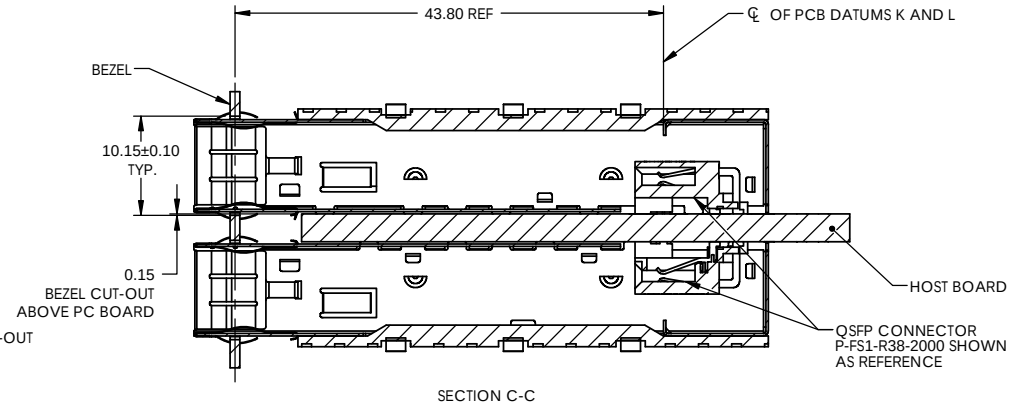
TITLE: QSFP CAGE ASSEMBLY
THRU THE BEZEL, WITH LOW PROFILE
ANGLE FIN STYLE HEAT SINK

SIZE A3 | DWG. NO. P-U90-A1X1-1X0X | REV. G
SCALE 5:2 | PROJECT | SHEET 4 OF 5

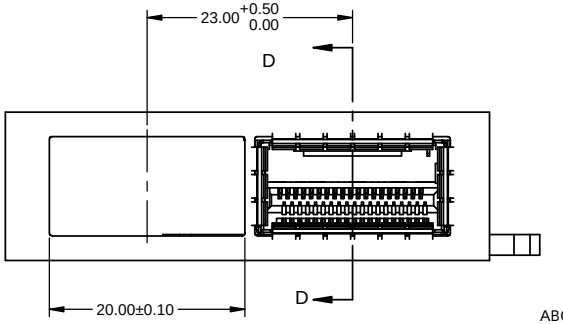
REVISIONS				
REV.	ECN	DESCRIPTION	DATE	APPROVED
A		INITIAL RELEASE	NOV 13/10	Z.L.
B		RAISED HEAT SINK POSITION	NOV 24/10	Z.L.
C		2.5 mm DIMENSION ADDED	FEB 06/11	Z.L.
D		HEAT SINK PLATING OPTION ADDED	FEB 22/11	Z.L.
E		HEAT SINK PLATING OPTION MODIFIED	AUG 26/11	Z.L.
F		ADD DIMENSIONS IN PAGE 2	SEP 12/12	Z.L.
G		UPDATED TOLERANCE	AUG 19/15	J.S

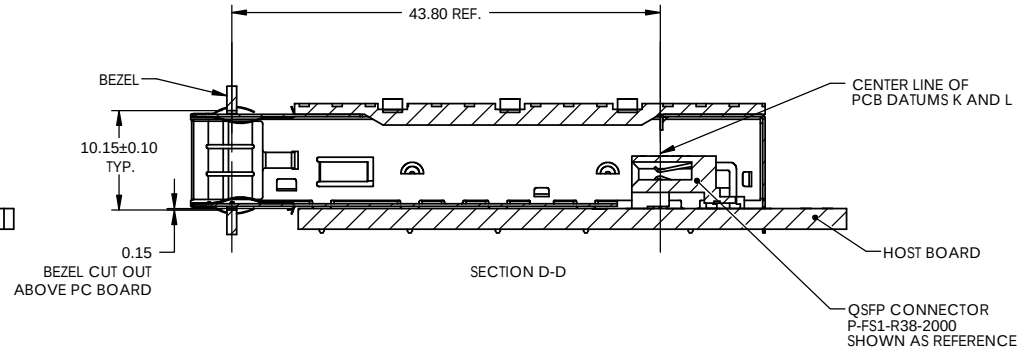




SECTION C-C

RECOMMENDED BELLY-TO-BELLY MOUNTING DESIGN





SECTION D-D

RECOMMENDED SINGLE SIDED MOUNTING DESIGN

DO NOT SCALE DRAWING

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS
TOLERANCES ARE:
DECIMALS X.X ± 0.15, X.XX ± 0.10
ANGLES ± 0.5°
MATERIAL AND FINISH: SEE NOTE 1
REF.
CODE IDENT. NO. 03554

APPROVALS		DATE
DRAWN	ZLJ	NOV 13/10
DESIGNED	ZLJ	NOV 13/10
CHECKED	J.SI	NOV 13/10
QA APP'D		
IE APP'D		
DWG APP'D	A.GREEN	NOV 13/10

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TITLE: QSFP CAGE ASSEMBLY THRU THE BEZEL, WITH LOW PROFILE ANGLE FIN STYLE HEAT SINK

SIZE A3 | DWG. NO. P-U90-A1X1-1X0X | REV. G
SCALE 2:1 | PROJECT | SHEET 5 OF 5