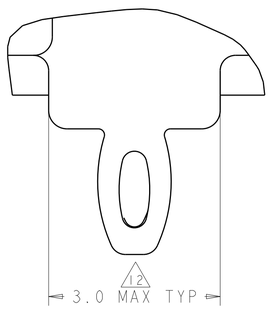
THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION 2012
© COPYRIGHT copyright, dd&eConnectivity ALL RIGHTS RESERVED.

LOC	DIST
GP	00

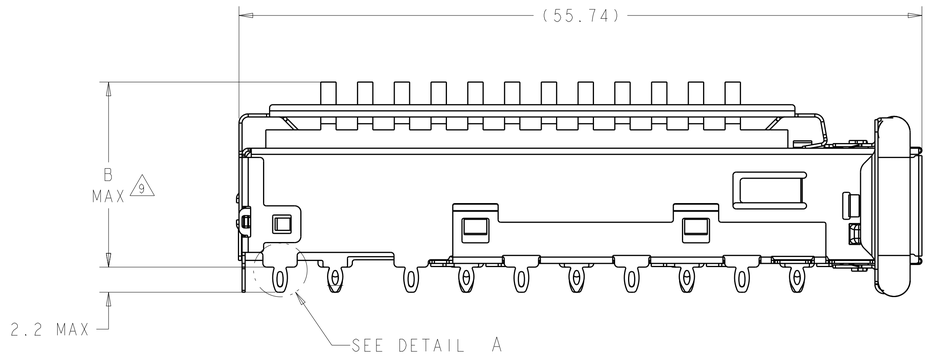
REVISIONS

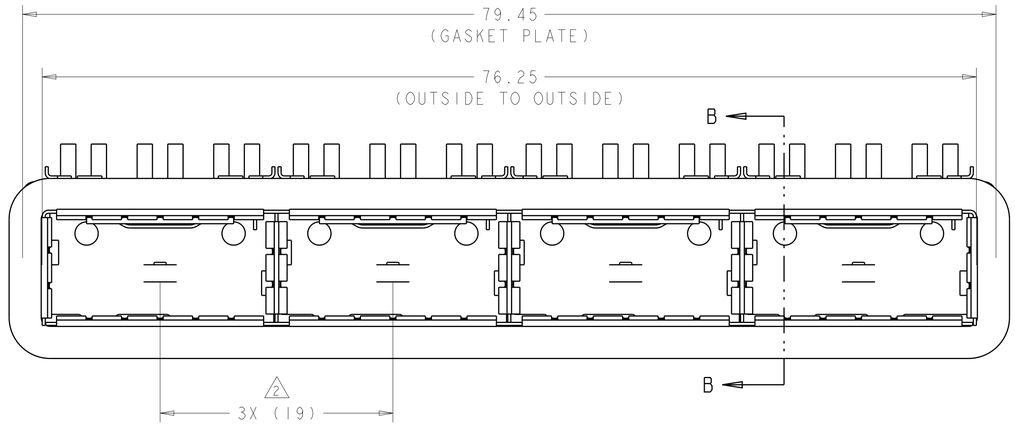
P	LTR	DESCRIPTION	DATE	DWN	APVD
	A	RELEASE PER ECO-16-002978	3MAR2016	RG	SH

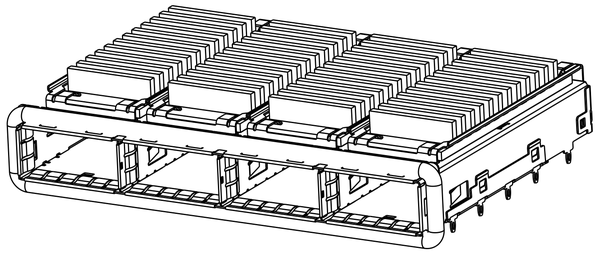
1. CAGE ASSEMBLY MATERIAL: NICKEL SILVER, 0.25 THICK
   HEAT SINK MATERIAL: ALUMINUM
   HEAT SINK CLIP MATERIAL: STAINLESS STEEL
   EMI SPRING MATERIAL: COPPER ALLOY
   EMI GASKET MATERIAL: CONDUCTIVE RUBBER,UL 94V-0 RATED
   EMI GASKET PLATE MATERIAL: STAINLESS STEEL
2. PITCH BETWEEN PORTS OF ONE 1X4 CAGE ASSEMBLY.
3. SPACING BETWEEN CAGES ON THE SAME PC BOARD, TO BE SPECIFIED BY CUSTOMER, MUST COMPLY WITH MINIMUM DIMENSIONS SHOWN.
4. REFERENCE APPLICATION SPEC 114-13217 FOR RECOMMENDED DRILL HOLE DIAMETER AND PLATING THICKNESS.
5. DATUMS AND BASIC DIMENSIONS ESTABLISHED BY CUSTOMER.
6. DIMENSION F IS THE NOMINAL THICKNESS OF CUSTOMER SUPPLIED PC BOARD,
   SINGLE SIDED PC BOARD MINIMUM THICKNESS = 1.45mm
   DOUBLE SIDED PC BOARD MINIMUM THICKNESS = 5.0mm PER CUSTOM.
7. HEAT SINKS, LIGHT PIPES, AND HEAT SINK CLIPS SHIPPED ASSEMBLED TO CAGE ASSEMBLY. CAGE ASSEMBLY MAY BE PRESSED INTO THE PCB AS SHIPPED.
8. DATUM -A- IS TOP SURFACE OF PC BOARD.
9. DIMENSION APPLIES WITH MODULE INSERTED IN CAGE.
10. UNPLATED THRU HOLE.
11. MATES WITH QSFP MSA COMPATIBLE TRANSCEIVER.
12. SURFACE TRACES PERMITTED WITHIN THIS AREA EXCEPT WHERE CAGE STANDOFFS, SHOWN IN DETAIL A, CONTACT PC BOARD.
13. BASELINE FOR THESE DIMENSIONS IS THE CENTER OF COMPLIANT PIN HOLE.
14. DATE CODE (YYWWD) MARKED ON TOP OF CAGE AND CONCEALED BY HEAT SINKS APPLIES TO CAGE ASSEMBLY ONLY.
15. REFERENCE APP SPEC 114-13217 FOR GASKET THICKNESS CALCULATION.
16. EMI SPRING FINISH: TIN PLATING OVER NICKEL
    HEAT SINK FINISH: ANODIZED OR NICKEL PLATING.



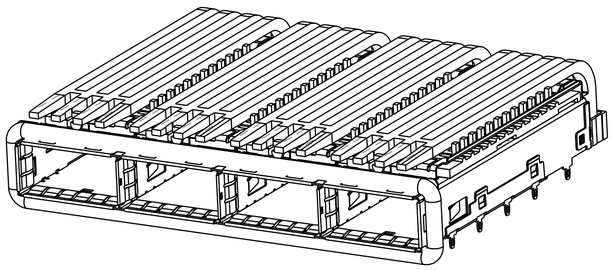
DETAIL A
SCALE 20:1



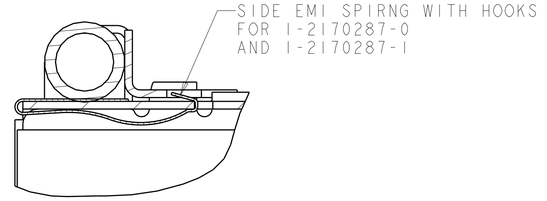




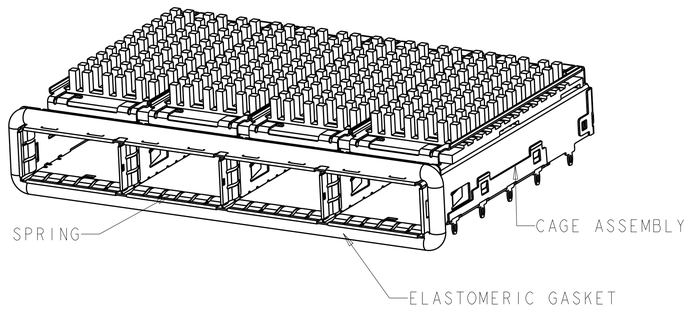
2170287-4,2170287-5,2170287-6
SCALE 2:1



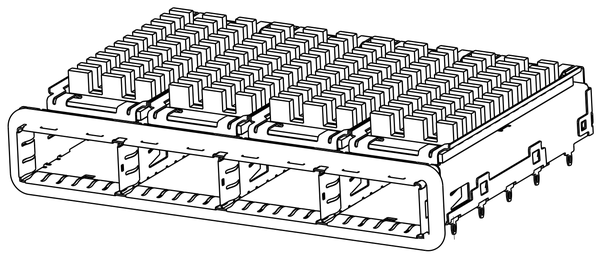
1-2170287-0
SCALE 2:1



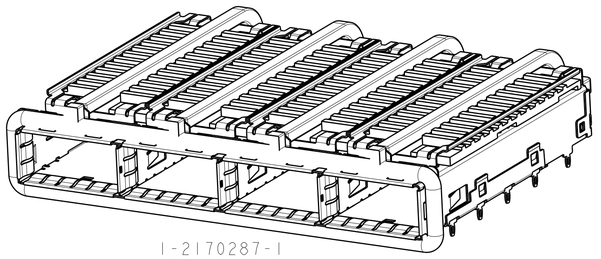
SECTION B-B
SCALE 10:1



2170287-1,2170287-2,2170287-3
SCALE 2:1



2170287-7, 2170287-8, 2170287-9
SCALE 2:1



1-2170287-1
SCALE 2:1

7

13.7	PCI(FIN TYPE)	1-2170287-1
15.0	CUSTOMIZED HEAT SINK	1-2170287-0
23.0	NETWORKING(FIN TYPE)	2170287-9
16.0	SAN(FIN TYPE)	2170287-8
13.7	PCI(FIN TYPE)	2170287-7
23.0	NETWORKING(FIN TYPE)	2170287-6
16.0	SAN(FIN TYPE)	2170287-5
13.7	PCI(FIN TYPE)	2170287-4
23.0	NETWORKING(PIN TYPE)	2170287-3
16.0	SAN(PIN TYPE)	2170287-2
13.7	PCI(PIN TYPE)	2170287-1
B	HEAT SINK PROFILE	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: mm

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±-
1 PLC ±0.35
2 PLC ±0.25
3 PLC ±-
4 PLC ±
ANGLES ±-

MATERIAL - 1
FINISH 16

DWN KINSEN SUN 29FEB2012
CHK DENNY ZHU 29FEB2012
APVD ALEX CAI 29FEB2012
PRODUCT SPEC 108-2286
APPLICATION SPEC 114-13217
WEIGHT -

TE Connectivity

NAME 1X4 CAGE ASSEMBLY, THRU BEZEL, W/ELASTOMERIC GASKET AND HEAT SINKS, QSFP

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A1	00779	C-2170287	-

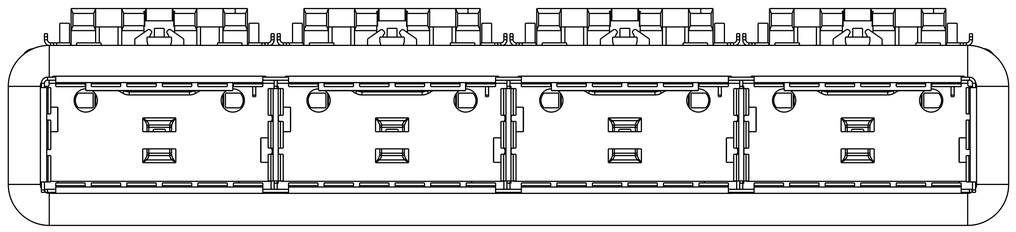
CUSTOMER DRAWING | SCALE 4:1 | SHEET 1 OF 8 | REV A

THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION 2012
© COPYRIGHT copyright, dBEeConnectivity ALL RIGHTS RESERVED.

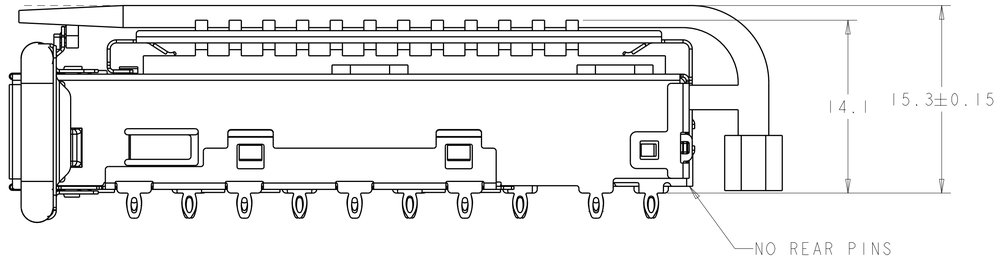
LOC	DIST
GP	00

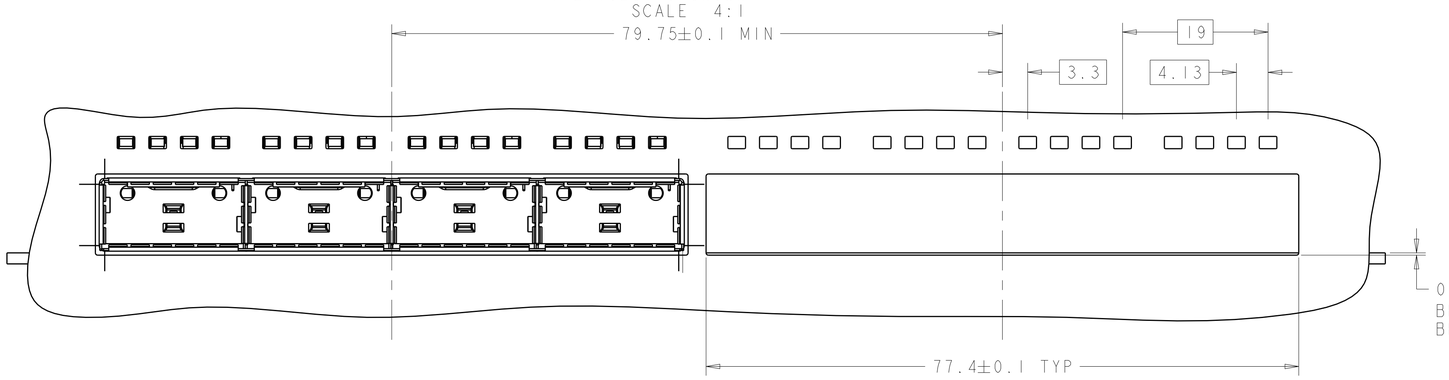
REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	-	SEE SHEET 1	-	-	-

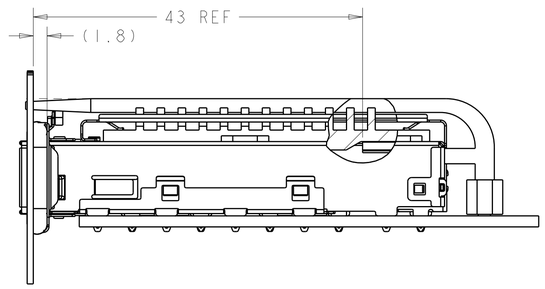


1-2170287-0 shown
SCALE 4:1

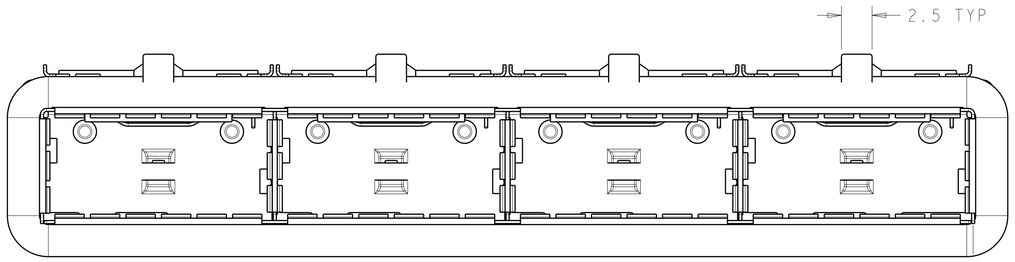




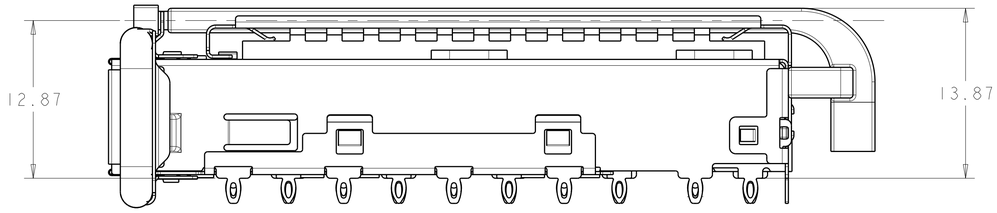
1-2170287-0
ONE SIDED CONFIGURATION
SCALE 5:2

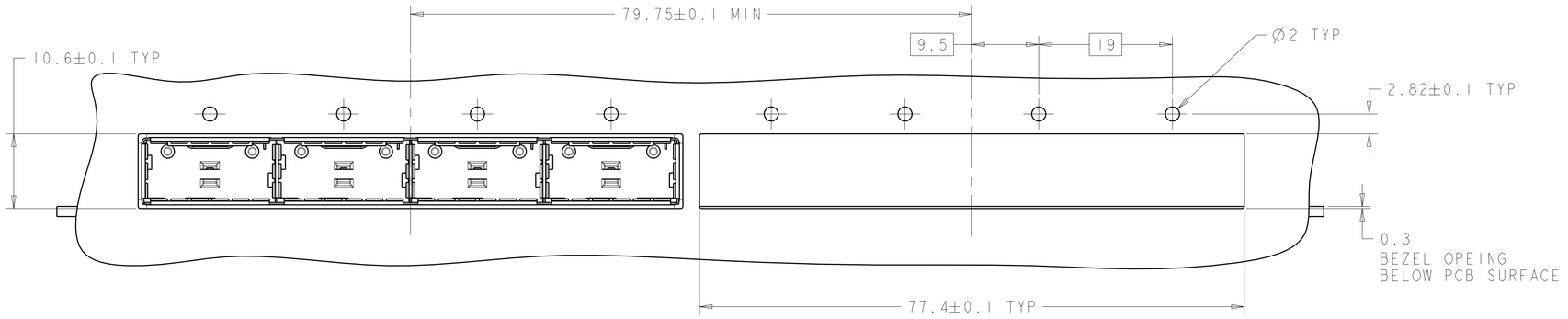


SECTION B-B

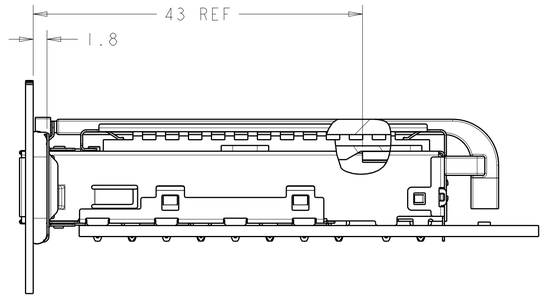


1-2170287-1 SHOWN
SCALE 4:1





1-2170287-1
ONE SIDED CONFIGURATION
SCALE 5:2



SECTION B-B

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: mm

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±-
1 PLC ±0.35
2 PLC ±0.25
3 PLC ±
4 PLC ±
ANGLES ±-

MATERIAL - -
FINISH - -

DWN KINSEN SUN 29FEB2012
CHK DENNY ZHU 29FEB2012
APVD ALEX CAI 29FEB2012
PRODUCT SPEC 108-2286
APPLICATION SPEC 114-13217
WEIGHT -

TE Connectivity

NAME 1X4 CAGE ASSEMBLY, THRU BEZEL, W/ELASTOMERIC GASKET AND HEAT SINKS, QSFP

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A1	00779	C-2170287	-

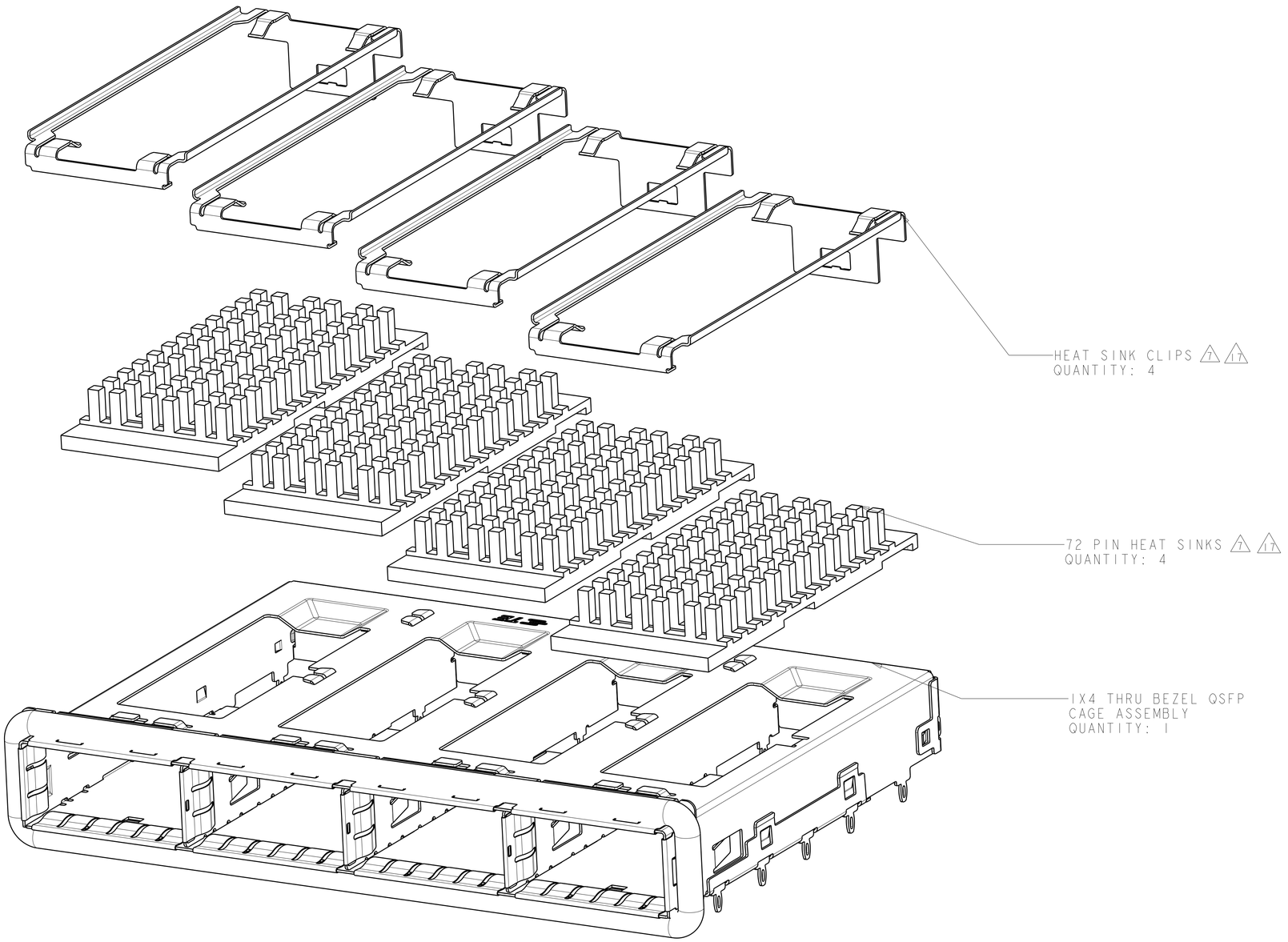
CUSTOMER DRAWING | SCALE 1:1 | SHEET 2 OF 8 | REV A

THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION 2012
© COPYRIGHT copyright, dd Ee Connectivity ALL RIGHTS RESERVED.

LOC	DIST
GP	00

REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	-	SEE SHEET 1	-	-	-



THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: mm

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±
1 PLC ±0.35
2 PLC ±0.25
3 PLC ±
4 PLC ±
ANGLES ±

MATERIAL -
-

FINISH -
-

DWN KINSEN SUN 29FEB2012
CHK DENNY ZHU 29FEB2012
APVD ALEX CAI 29FEB2012
PRODUCT SPEC 108-2286
APPLICATION SPEC 114-13217
WEIGHT -

TE Connectivity

NAME 1X4 CAGE ASSEMBLY, THRU BEZEL, W/ELASTOMERIC GASKET AND HEAT SINKS, QSFP

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A1	00779	C-2170287	-

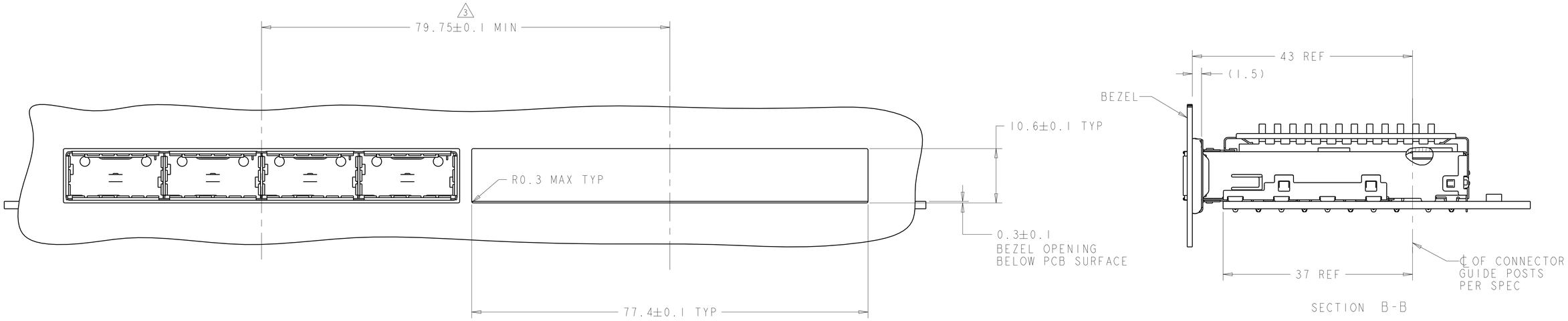
CUSTOMER DRAWING | SCALE 1:1 | SHEET 3 OF 8 | REV A

THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION 2012
© COPYRIGHT copyright, d&e Connectivity ALL RIGHTS RESERVED.

LOC	DIST
GP	00

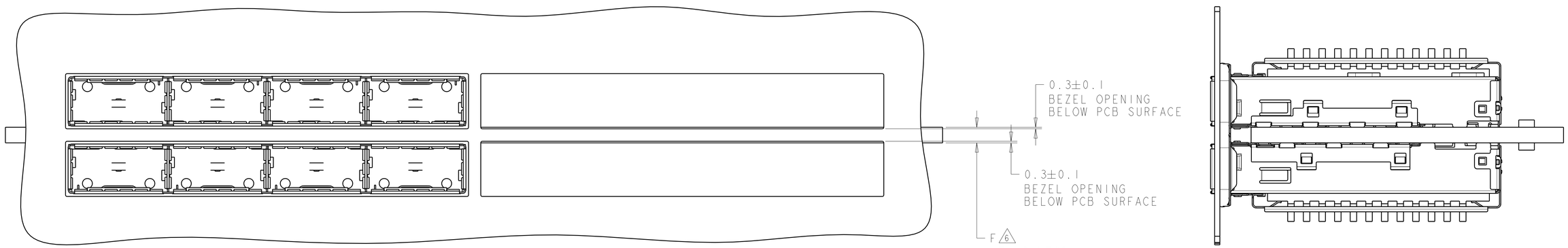
REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	-	SEE SHEET 1	-	-	-



ONE SIDED CONFIGURATION
SCALE 5:2

SECTION B-B



BELLY TO BELLY CONFIGURATION
SIMILAR TO ONE SIDED
EXCEPT WHERE NOTED
SCALE 5:2

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: mm

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±-
1 PLC ±0.35
2 PLC ±0.25
3 PLC ±
4 PLC ±
ANGLES ±-

MATERIAL - -
FINISH - -

DWN KINSEN SUN 29FEB2012
CHK DENNY ZHU 29FEB2012
APVD ALEX CAI 29FEB2012
PRODUCT SPEC 108-2286
APPLICATION SPEC 114-13217
WEIGHT -

TE Connectivity

NAME 1X4 CAGE ASSEMBLY, THRU BEZEL, W/ELASTOMERIC GASKET AND HEAT SINKS, QSFP

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A1	00779	C-2170287	-

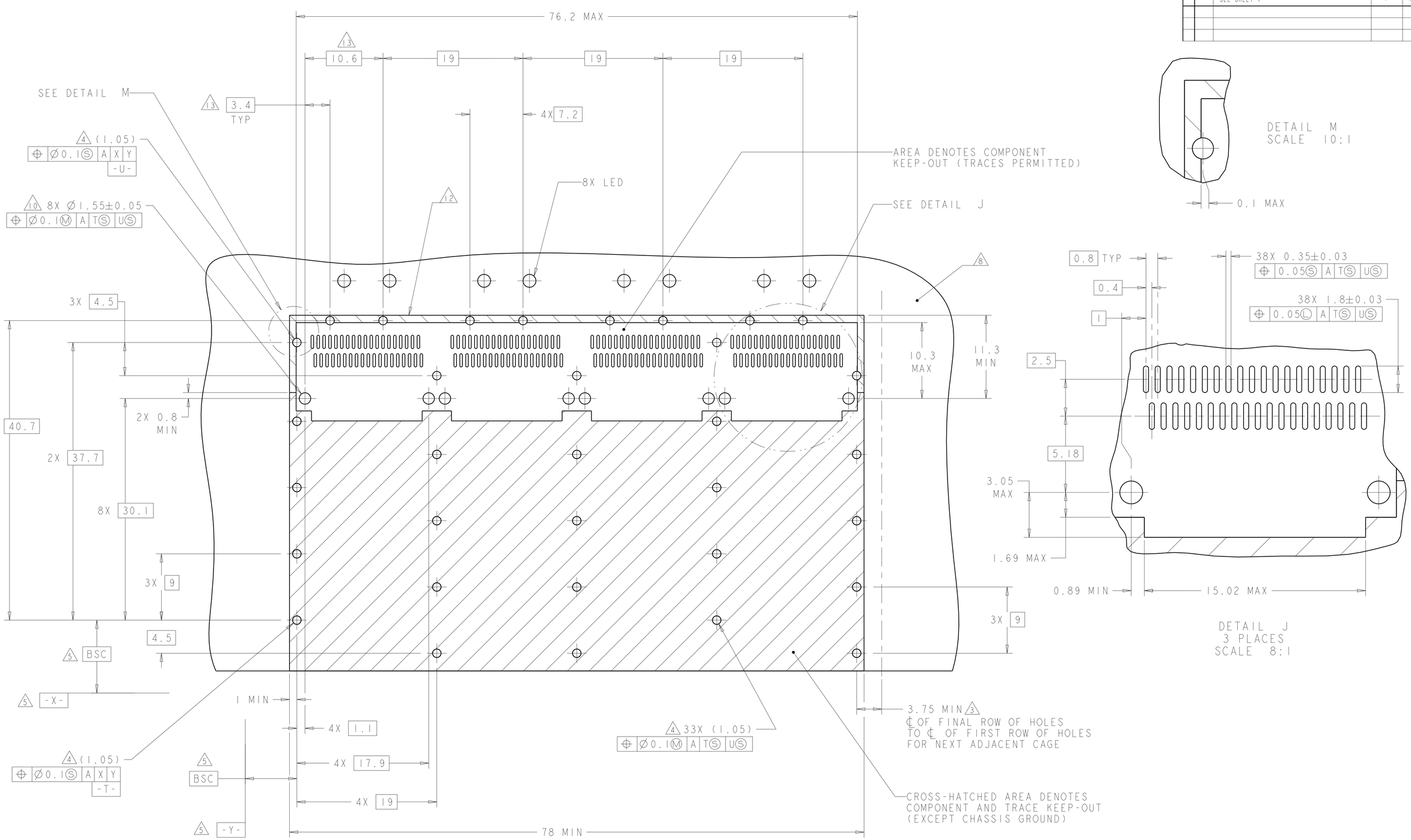
CUSTOMER DRAWING | SCALE 1:1 | SHEET 4 OF 8 | REV A

THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION 2012
© COPYRIGHT copyright_dd&eConnectivity ALL RIGHTS RESERVED.

LOC	DIST
GP	00

REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	-	SEE SHEET 1	-	-	-



RECOMMENDED PC BOARD LAYOUT
SINGLE SIDE MOUNT CONFIGURATION
SCALE 4:1

DETAIL M
SCALE 10:1

DETAIL J
3 PLACES
SCALE 8:1

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: mm

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±-
1 PLC ±0.35
2 PLC ±0.25
3 PLC ±
4 PLC ±
ANGLES ±-

MATERIAL -
FINISH -

DWN KINSEN SUN 29FEB2012
CHK DENNY ZHU 29FEB2012
APVD ALEX CAI 29FEB2012
PRODUCT SPEC 108-2286
APPLICATION SPEC 114-13217
WEIGHT -

TE Connectivity

NAME 1X4 CAGE ASSEMBLY, THRU BEZEL, W/ELASTOMERIC GASKET AND HEAT SINKS, QSFP

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A1	00779	C-2170287	-

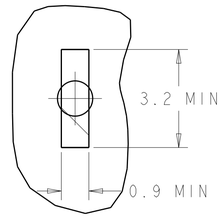
CUSTOMER DRAWING | SCALE 1:1 | SHEET 5 OF 8 | REV A

THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION 2012
© COPYRIGHT copyright, dBEeConnectivity ALL RIGHTS RESERVED.

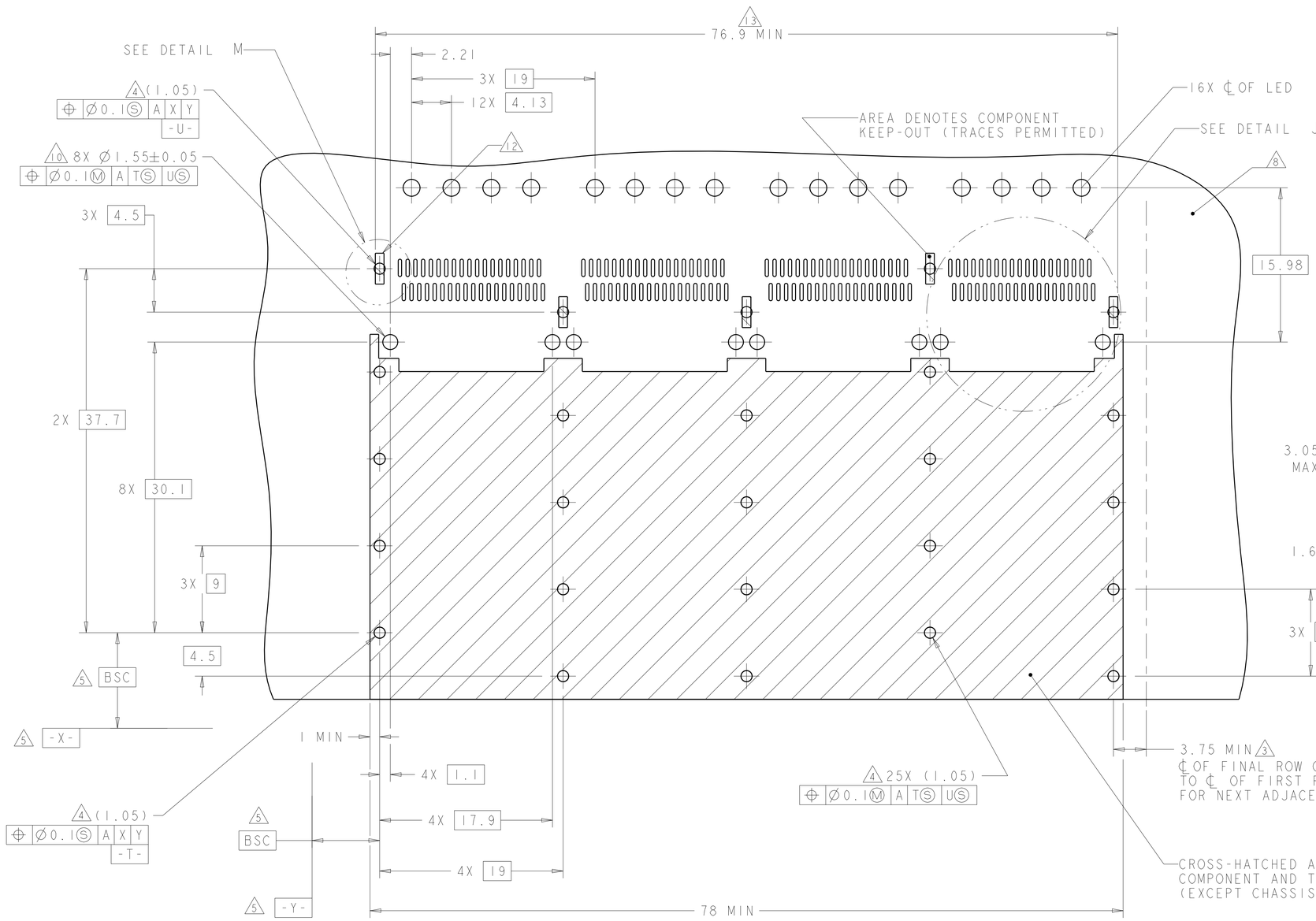
LOC	DIST
GP	00

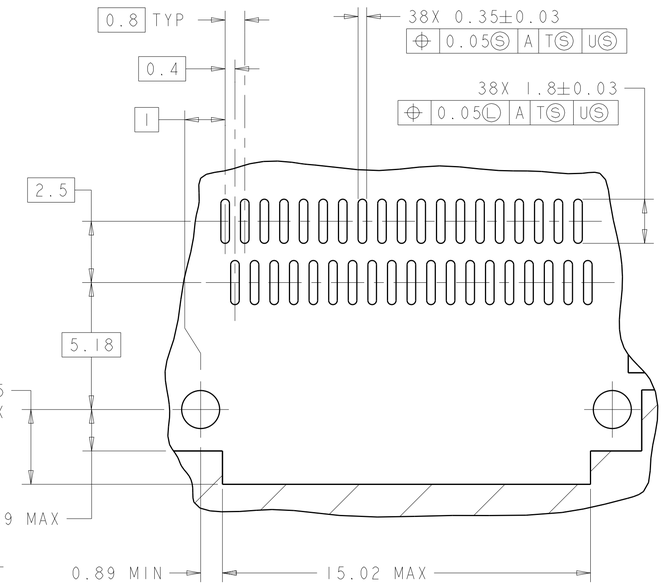
REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	-	SEE SHEET 1	-	-	-



DETAIL M
SCALE 10:1





DETAIL J
3 PLACES
SCALE 8:1

RECOMMENDED PC BOARD LAYOUT FOR 1-2170287-0
SINGLE SIDE MOUNT CONFIGURATION
SCALE 4:1

THIS PRODUCT HAS NOT COMPLETED VALIDATION/QUALIFICATION TESTING

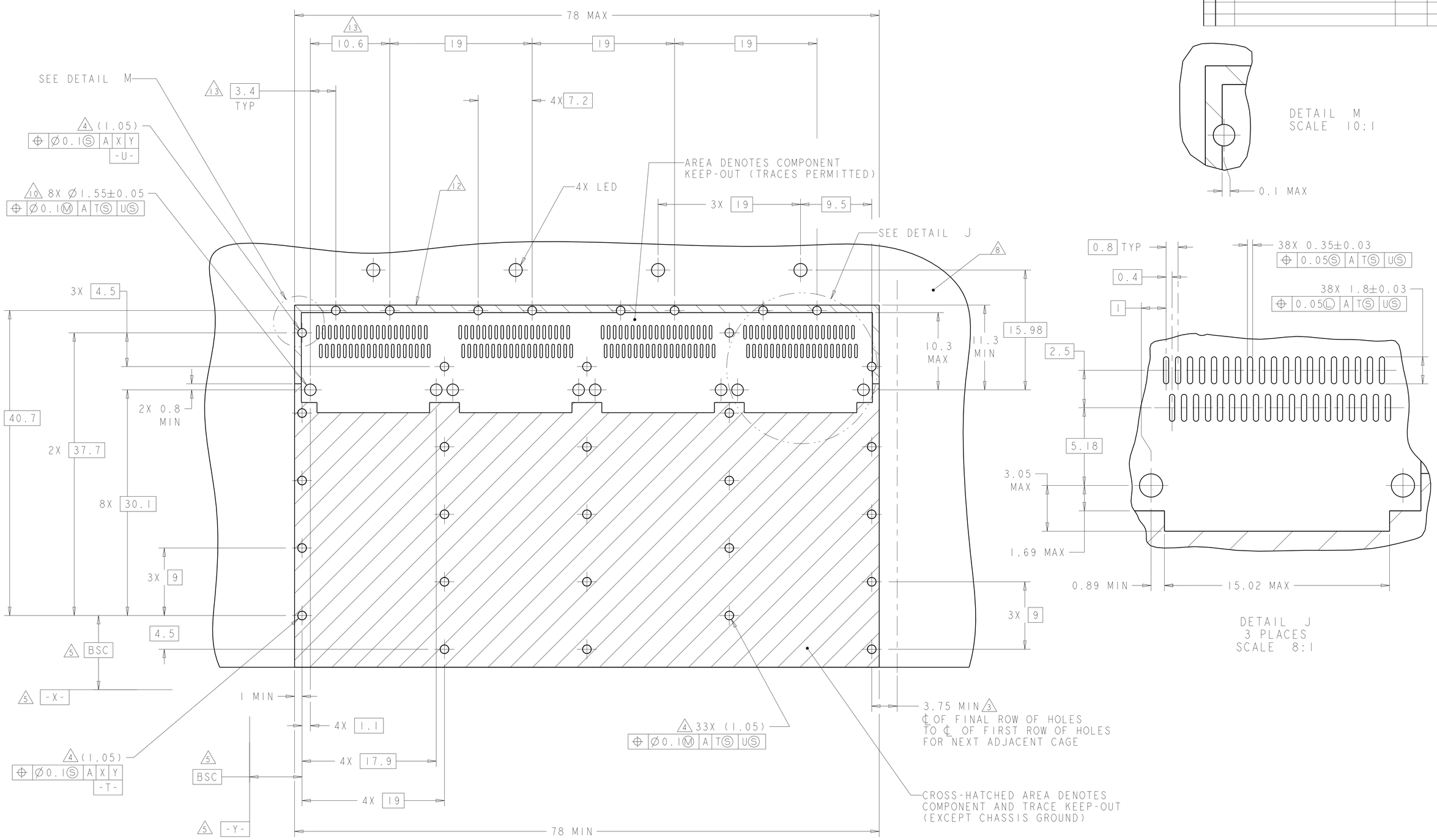
THIS DRAWING IS A CONTROLLED DOCUMENT.	DWN KINSEN SUN 29FEB2012	TE Connectivity	
DIMENSIONS: mm	CHK DENNY ZHU 29FEB2012	NAME	1X4 CAGE ASSEMBLY, THRU BEZEL, W/ELASTOMERIC GASKET AND HEAT SINKS, QSFP
TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±- 1 PLC ±0.35 2 PLC ±0.25 3 PLC ± 4 PLC ± ANGLES ±-	APVD ALEX CAI 29FEB2012	PRODUCT SPEC 108-2286	
		APPLICATION SPEC 114-13217	
MATERIAL - -	FINISH - -	WEIGHT -	SIZE A1 · CAGE CODE 00779 · DRAWING NO C-2170287 · RESTRICTED TO -
		CUSTOMER DRAWING	SCALE 1:1 · SHEET 6 OF 8 · REV A

THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION 2012
© COPYRIGHT copyright_date ALL RIGHTS RESERVED.

LOC	DIST
GP	00

REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	-	SEE SHEET 1	-	-	-



DETAIL M
SCALE 10:1

DETAIL J
3 PLACES
SCALE 8:1

RECOMMENDED PC BOARD LAYOUT
SINGLE SIDE MOUNT CONFIGURATION FOR 1-2170287-1
SCALE 4:1

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: mm

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±-
1 PLC ±0.35
2 PLC ±0.25
3 PLC ±
4 PLC ±
ANGLES ±-

MATERIAL - -
FINISH - -

DWN KINSEN SUN 29FEB2012
CHK DENNY ZHU 29FEB2012
APVD ALEX CAI 29FEB2012
PRODUCT SPEC 108-2286
APPLICATION SPEC 114-13217
WEIGHT -

TE Connectivity

NAME 1X4 CAGE ASSEMBLY, THRU BEZEL, W/ELASTOMERIC GASKET AND HEAT SINKS, QSFP

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A1	00779	C-2170287	-

CUSTOMER DRAWING | SCALE 1:1 | SHEET 7 OF 8 | REV A

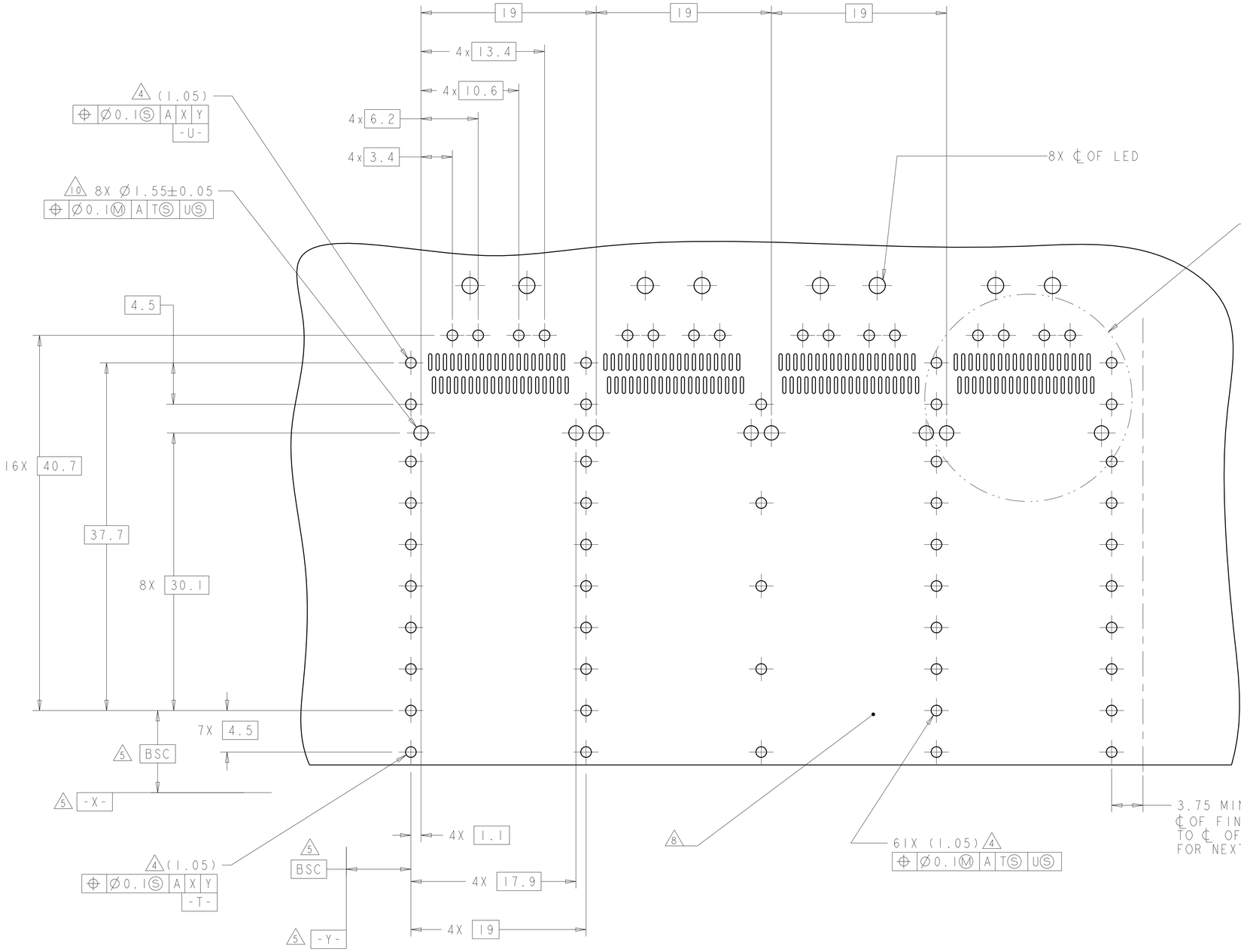
4805 (3/11)

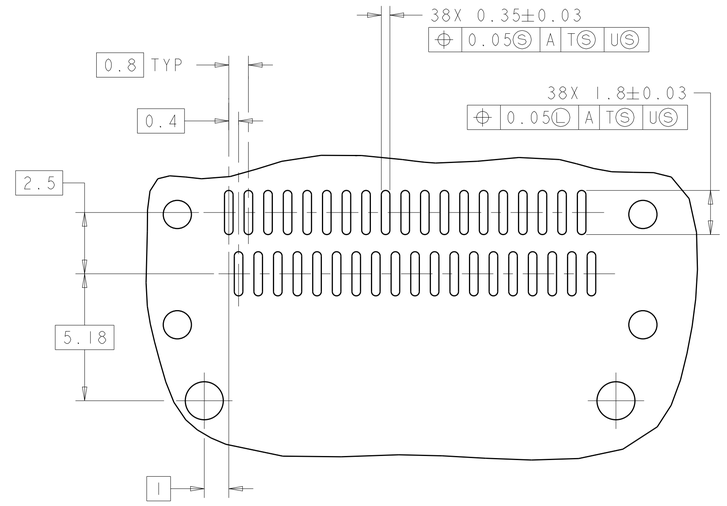
THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION 2012
© COPYRIGHT copyright, dd&e Connectivity ALL RIGHTS RESERVED.

LOC	DIST
GP	00

REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	-	SEE SHEET 1	-	-	-





DETAIL K
SCALE 8:1

RECOMMENDED PC BOARD LAYOUT
BELLY TO BELLY CONFIGURATION
SEE SHEET 4 FOR COMPONENT AND TRACE KEEP-OUTS
SCALE 4:1

THIS PRODUCT HAS NOT COMPLETED VALIDATION/QUALIFICATION TESTING

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN KINSEN SUN 29FEB2012	TE Connectivity
DIMENSIONS: mm	TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±- 1 PLC ±0.35 2 PLC ±0.25 3 PLC ± 4 PLC ± ANGLES ±-	CHK DENNY ZHU 29FEB2012	NAME 1X4 CAGE ASSEMBLY, THRU BEZEL, W/ELASTOMERIC GASKET AND HEAT SINKS, QSFP
		APVD ALEX CAI 29FEB2012	
		PRODUCT SPEC 108-2286	
		APPLICATION SPEC 114-13217	SIZE A1 · CAGE CODE 00779 · DRAWING NO C-2170287 · RESTRICTED TO -
MATERIAL - -	FINISH - -	WEIGHT -	CUSTOMER DRAWING · SCALE 1:1 · SHEET 8 OF 8 · REV A