BASE CAGE DETAILS

2033701244 SHOWN

76.85 REF.

71.57 REF.

INNER WALL TABS ARE COINED OVER COVER AND BASE FOR RIGIDITY.

CLOSE TOP

SPRING FINGER

WITHOUT RAISED BASE

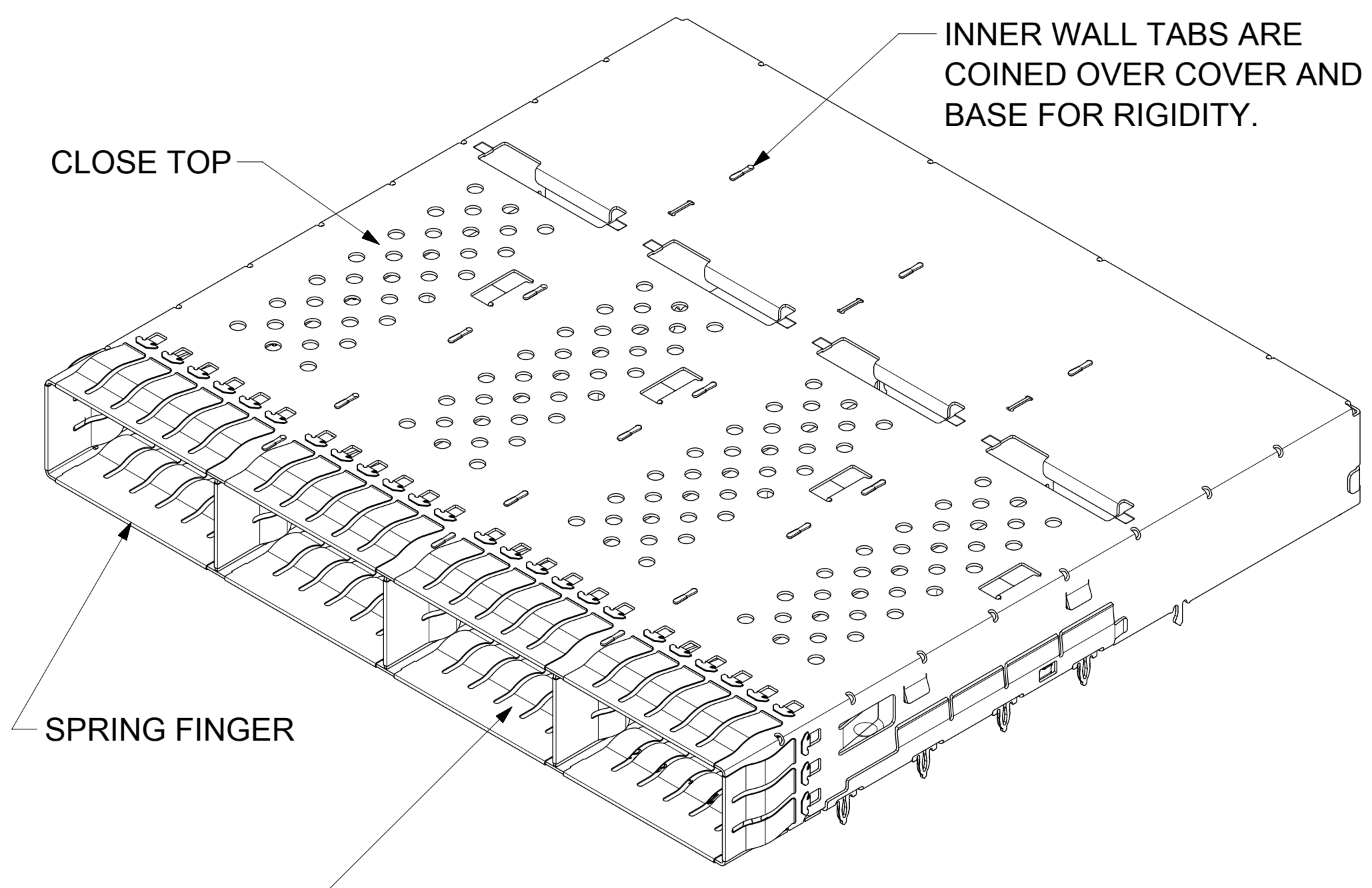REAR LEGS(OPTIONAL)
(SEE TABLE ON SHEET 3)

77.59 REF.
(UNCOMPRESSED)

FROM THE EDGE OF CAGE COVER
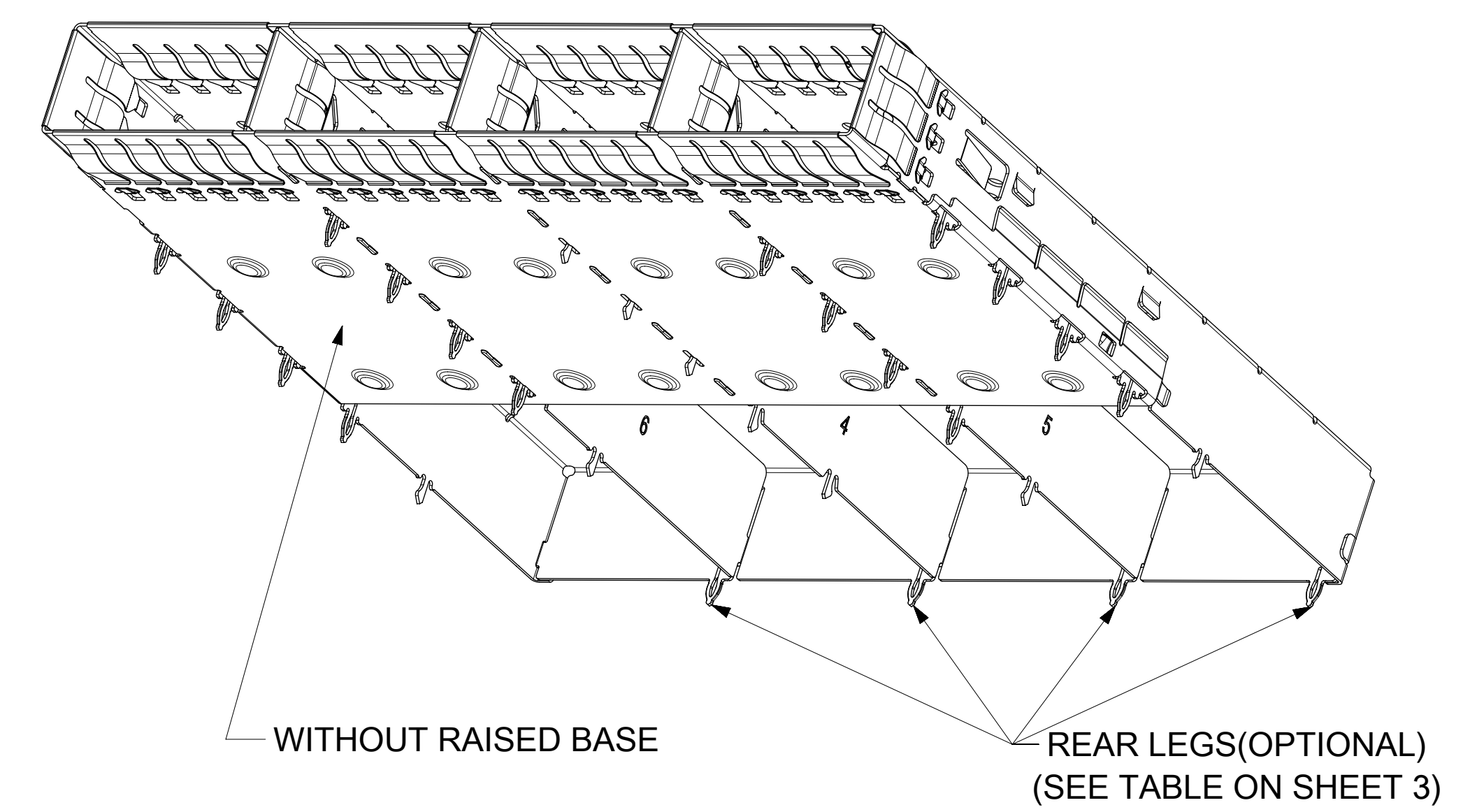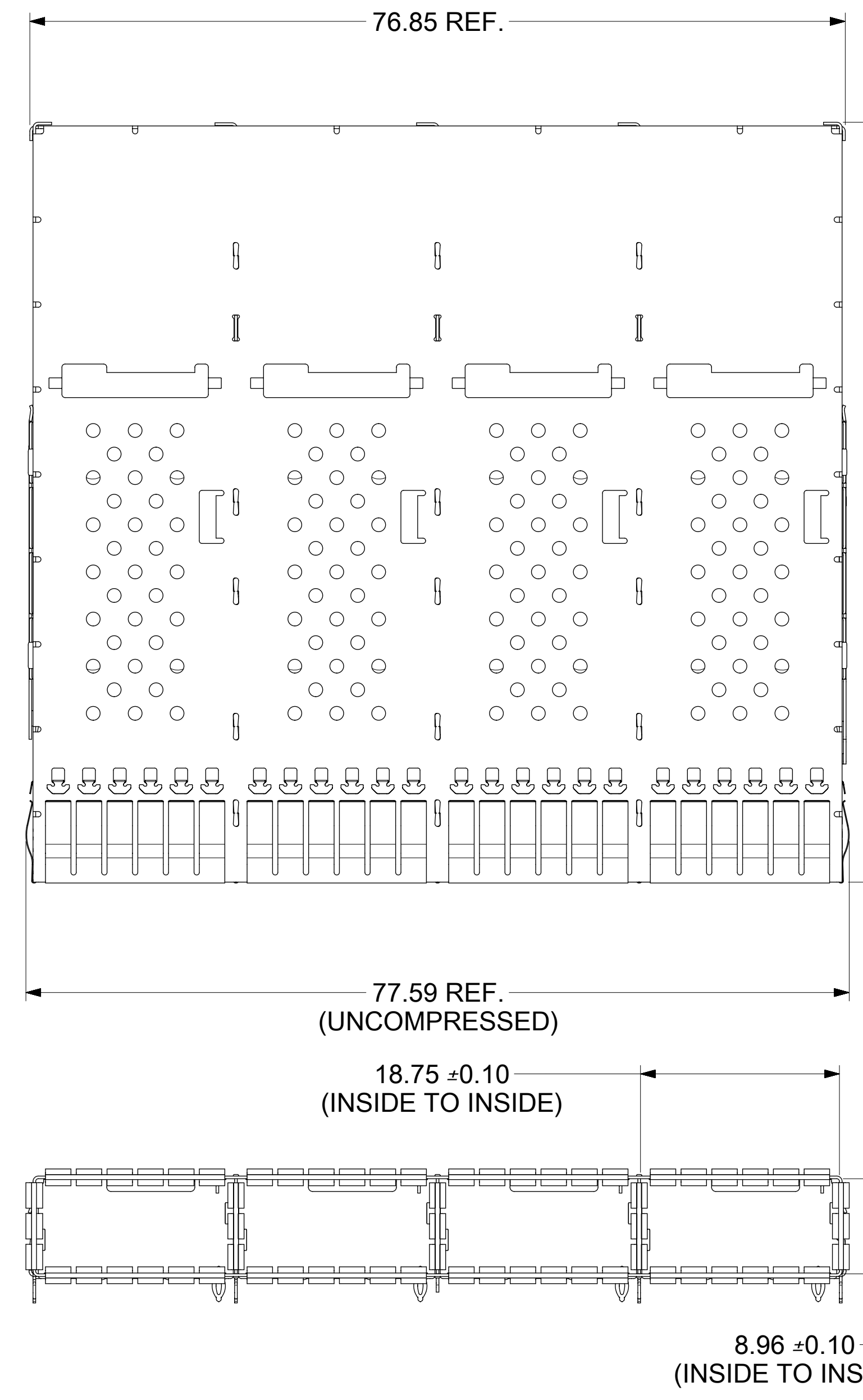
DIMENSIONS OF EACH INNER CAGE DESIGNED TO FUNCTION WITH QUAD SMALL FORM-FACTOR (zQSFP+& QSFP-DD) TRANSCEIVER

18.75 ±0.10
(INSIDE TO INSIDE)
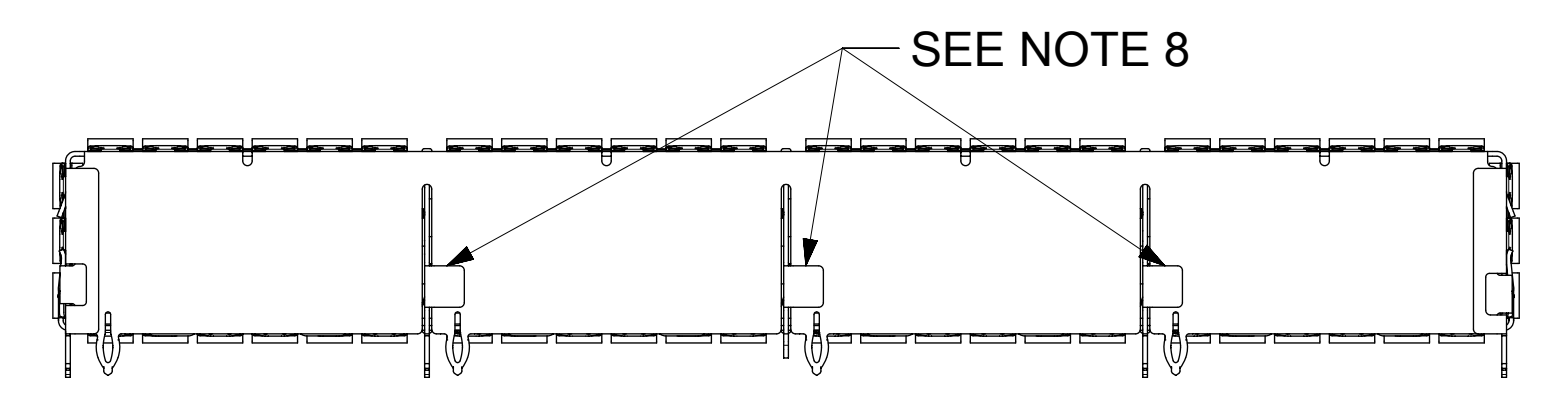
SEE NOTE 8

10.80 REF.
(UNCOMPRESSED)

9.75 REF.

203370XXXX
WKYR

8.96 ±0.10
(INSIDE TO INSIDE)

13.40 REF.
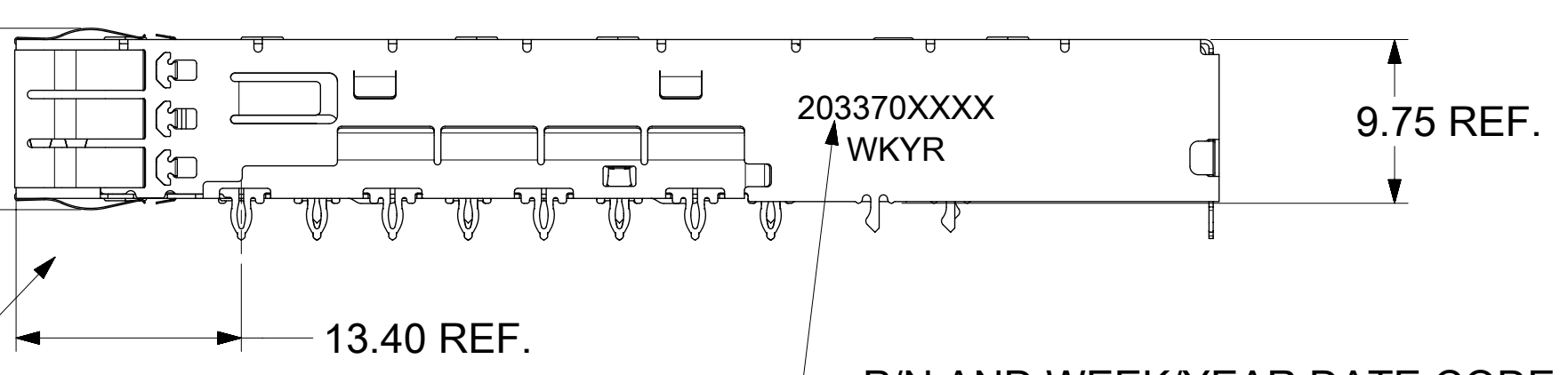
FROM THE EDGE OF CAGE COVER

P/N AND WEEK/YEAR DATE CODE TO BE PRINTED ON SIDE OF COMPLETED CAGE ASSEMBLY APPROXIMATELY AS SHOWN. SEE TABLE BELOW FOR DATE CODE INFORMATION.

WEEK/YEAR DATE CODE TABLE	
WK	WEEK OF THE YEAR 01 THRU 52 OR 53 (EXAMPLE: 01= FIRST WEEK OF YEAR, 52 OR 53 = LAST WEEK OF YEAR
YR	17, 18, 19 ETC.. (EXAMPLE: YEAR 2017= 17)

NOTES:
1. MATERIAL: CAGE: STAINLESS STEEL
   CENTER WALLS: STAINLESS STEEL
   SPRING FINGERS: STAINLESS STEEL
   HEAT SINK: ALUMINUM(BLACK ANODIZATION)
   HEAT SINK CLIP: STAINLESS STEEL
2. DRAWING APPLIES TO ALL P/N'S SHOWN ON SHEET 3
3. DURING FINAL INSPECTION, CAGE LEG LOCATIONS AND STRAIGHTNESS MUST BE CHECKED USING APPROPRIATE GO - NO GO GAGE
4. DURING FINAL INSPECTION, CAGE MUST BE INSPECTED TO MAKE SURE LEG CONFIGURATIONS AND PART NUMBERS ARE CORRECT, REFER TO SHEETS 3.
5. PARTS TO BE INSPECTED PER MOLEX COSMETIC SPEC WI-HP-7-2774 (CLASS B UNLESS OTHERWISE SPECIFIED)
6. PRESS-FIT LEGS 2.20mm LONG -
   1.57mm MINIMUM PCB THICKNESS FOR SINGLE SIDED USE.
   2.70mm MINIMUM PCB THICKNESS FOR BELLY TO BELLY USE.
7. NO RoHS EXEMPTIONS.
8. WELD SPOT MAY SHOW SLIGHT MATERIAL DISCOLORATION.

SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
▽ = 0	DIMENSION UNITS: mm	SCALE 2.5:1	CURRENT REV DESC: SEE REVISION TABLE
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		**molex**
▽ = 0	ANGULAR TOL ± 2.0°	EC NO: 629406	
▽ = 0	4 PLACES ±	DRWN: JYEN01 2019/12/13	QSFP-DD 1X4 GANGED CAGE ASSY SF WITH FIN H/S OPTIONS
▼ = 0	3 PLACES ±	CHK'D: SCHIEN 2019/12/20	
▽ = 0	2 PLACES ± 0.13	APPR: JCHIANG 2019/12/20	PRODUCT CUSTOMER DRAWING
⊠ = 0	1 PLACE ± 0.25	INITIAL REVISION: DRWN: MKEMPEGOWDA 2017/07/21	DOCUMENT NUMBER 2033701201
■ = 0	0 PLACES ±	APPR: RCHEN08 2017/08/15	DOC TYPE PSD DOC PART ASY REVISION D3
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	THIRD ANGLE PROJECTION ⊕ ⊏⊐	D-SIZE	DRAWING 203370	SERIES SEE P/N TABLE	MATERIAL NUMBER	CUSTOMER GENERAL MARKET	SHEET NUMBER 1 OF 7

CAGE ASSEMBLY OPTIONS

2033702346 SHOWN

HEAT SINK CLIP

HEAT SINK

SPRING FINGER

WITH RAISED BASE

DIM "A" MAX.
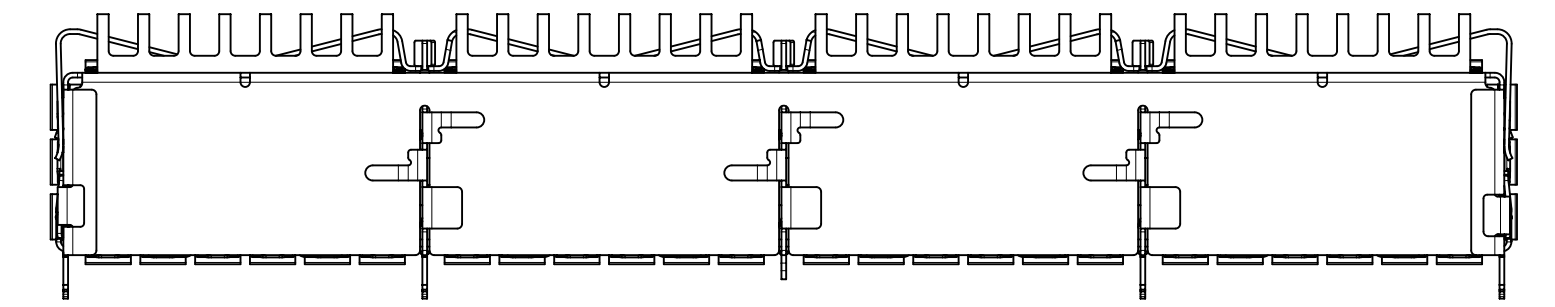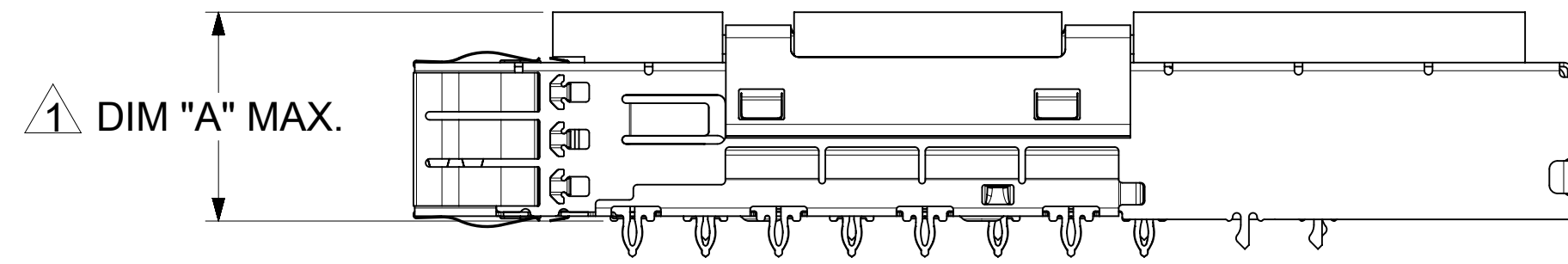
REAR LEG OPTIONS

0 REAR LEG

1 REAR LEG

HEAT SINK HEIGHT OPTIONS

OVERALL HEAT SINK HEIGHT	DIM "A"
PCI	13.7
SAN	16.0
NET	23.0

HEIGHT OF HEAT SINK WITH MODULE INSERTED.
DIMENSION MAY BE LESS DUE TO MODULE AND HEAT SINK VARIATIONS.

SYMBOLS		
▽ = 0		
▽ = 0		
▽ = 0		
◁ = 0		
▼ = 0		
▽ = 0		
⊠ = 0		
■ = 0		
▽ = 0		

DIMENSION UNITS: mm
SCALE: 2.5:1

GENERAL TOLERANCES
(UNLESS SPECIFIED)

ANGULAR TOL	±	2.0 °
4 PLACES	±	
3 PLACES	±	
2 PLACES	±	0.13
1 PLACE	±	0.25
0 PLACES	±	

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

CURRENT REV DESC: SEE REVISION TABLE

EC NO: 629406
DRWN: JYEN01   2019/12/13
CHK'D: SCHIEN   2019/12/20
APPR: JCHIANG   2019/12/20

INITIAL REVISION:
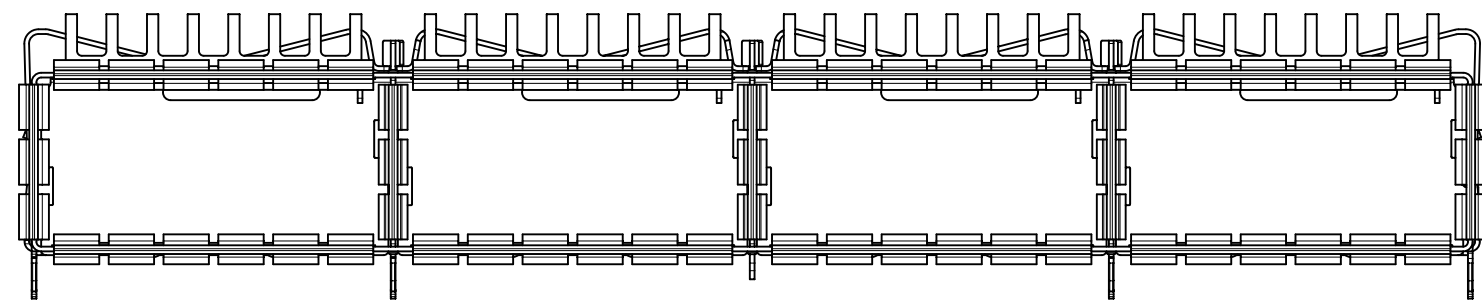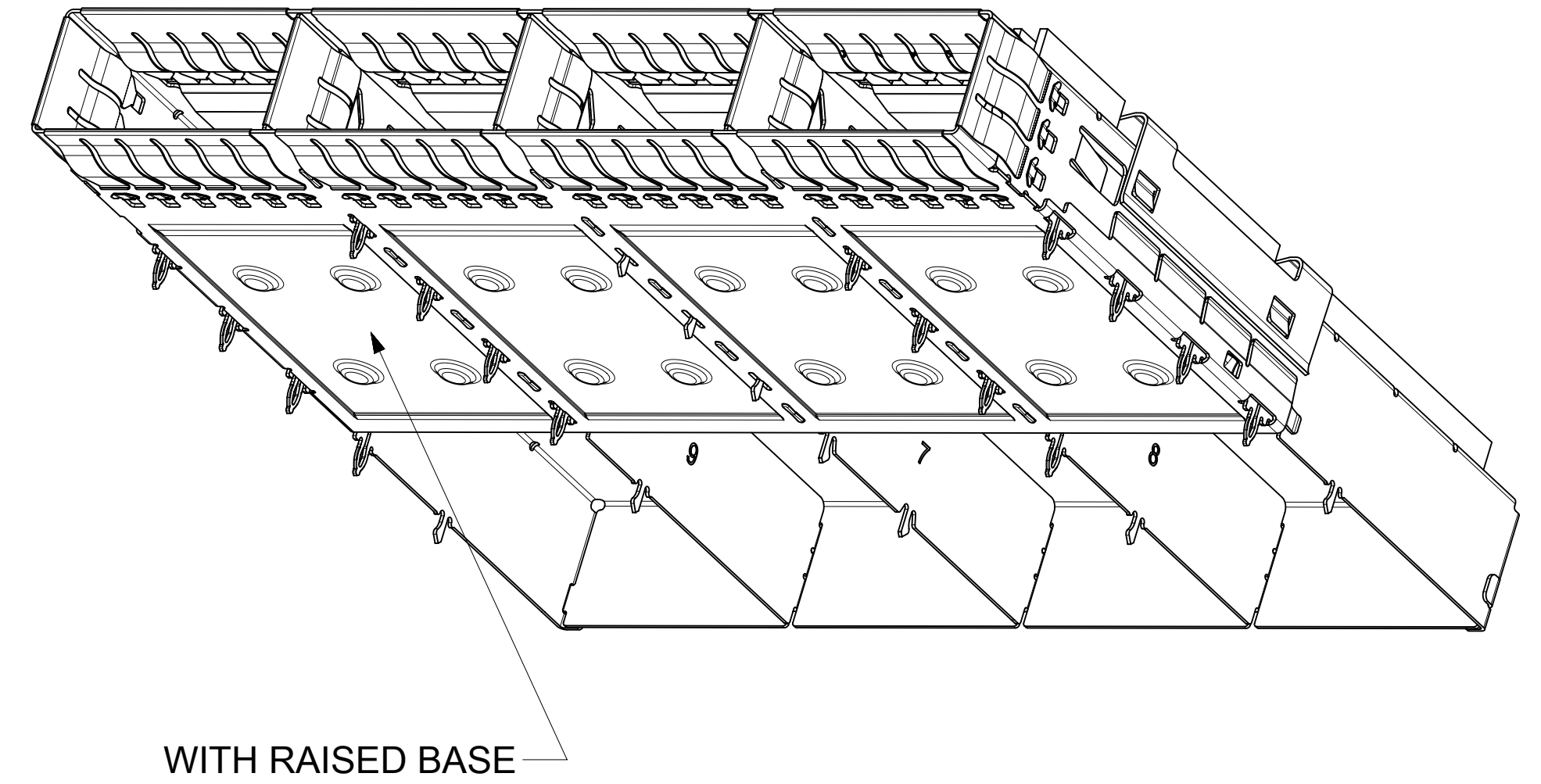DRWN: MKEMPEGOWDA   2017/07/21
APPR: RCHEN08   2017/08/15

molex
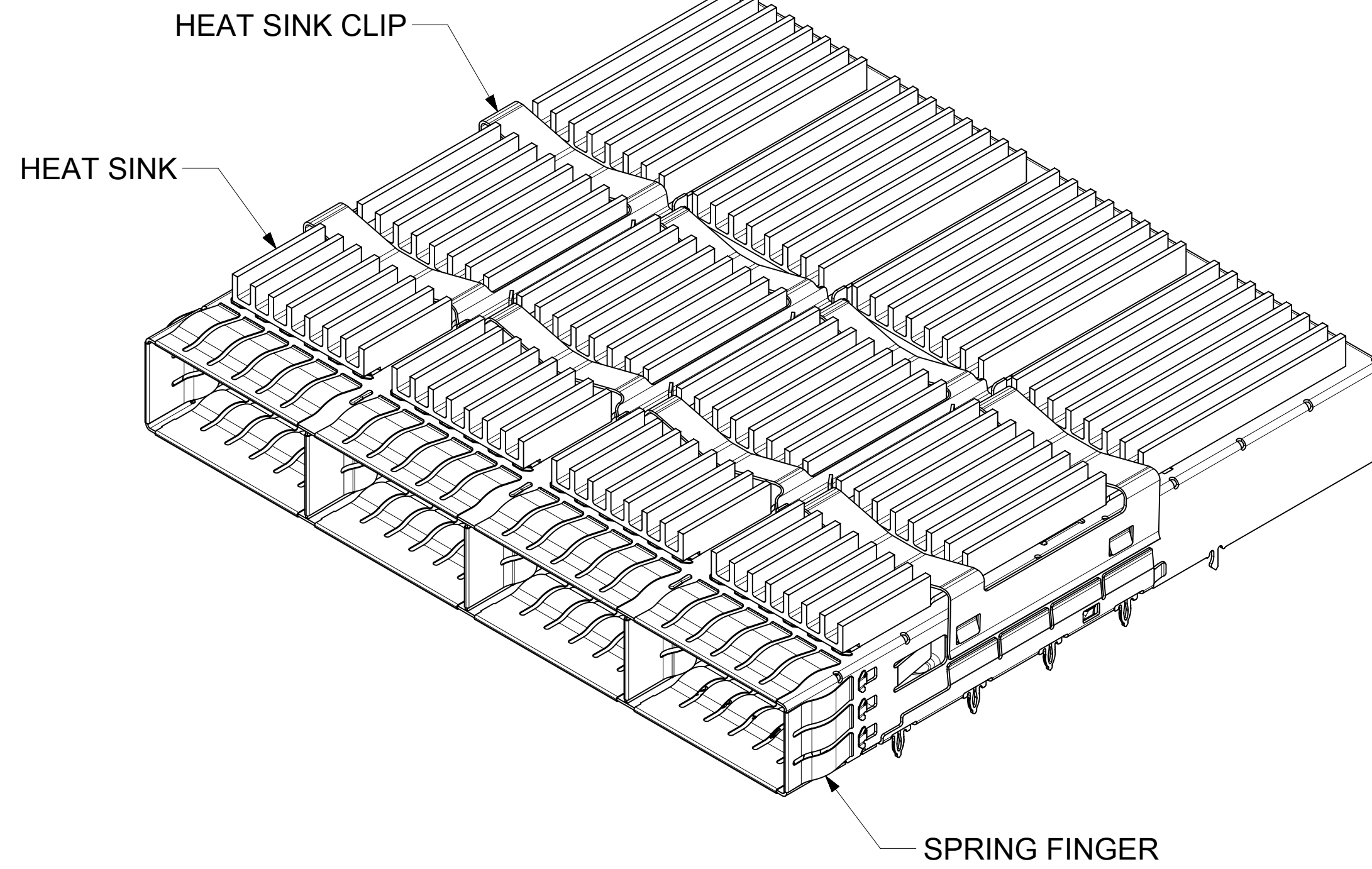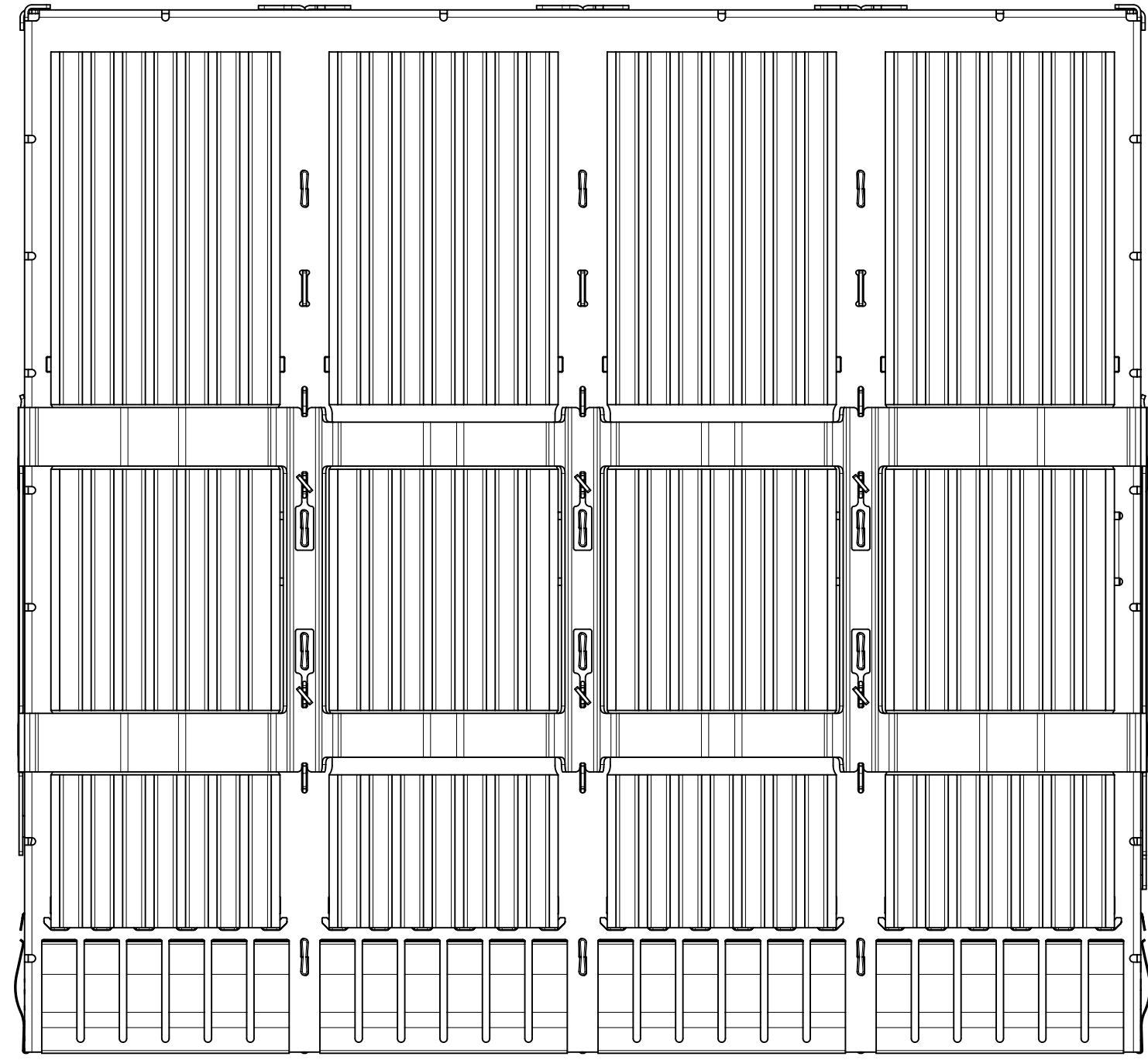
QSFP-DD 1X4 GANGED CAGE ASSY
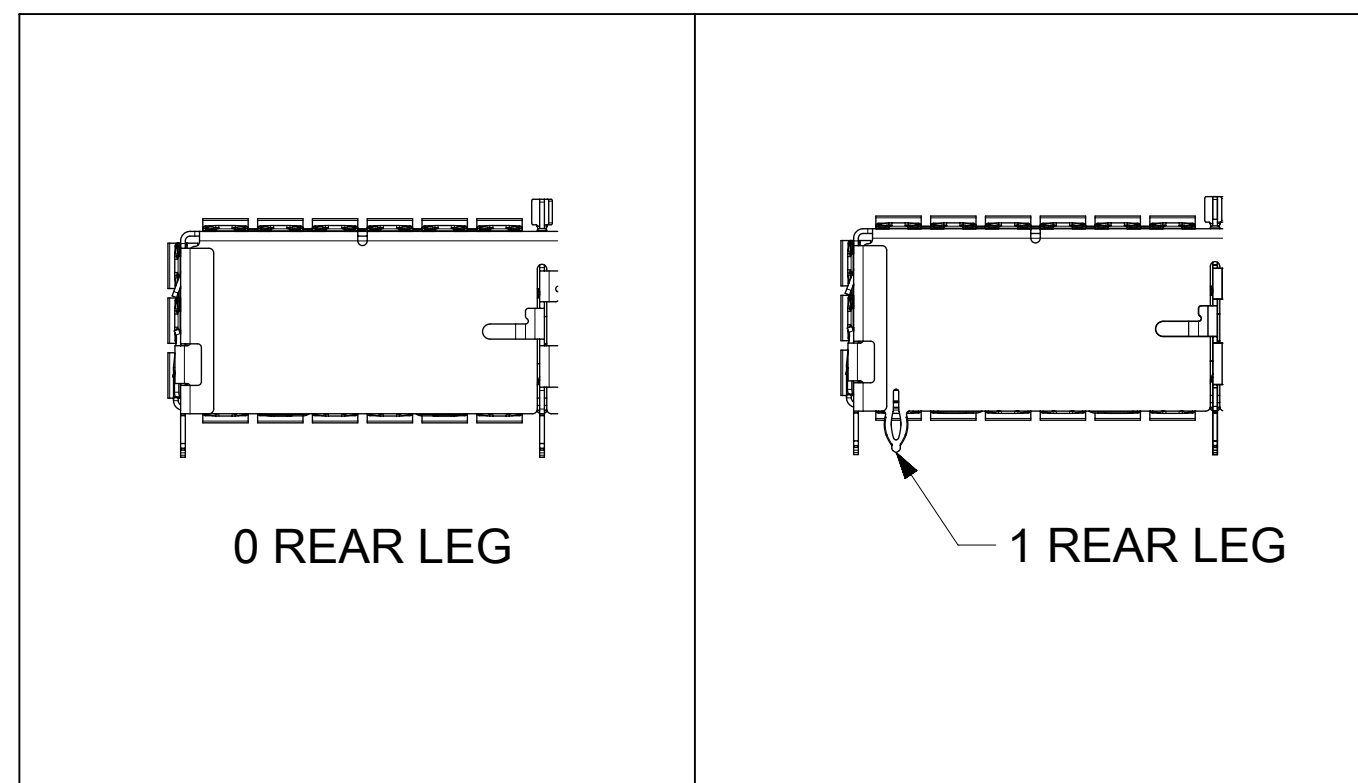SF WITH FIN H/S OPTIONS

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION
2033701201	PSD	ASY	D3

THIRD ANGLE PROJECTION
⊕ ⊏

D-SIZE | 203370 | SEE P/N TABLE | GENERAL MARKET

DRAWING: 203370
SERIES
MATERIAL NUMBER
CUSTOMER
SHEET NUMBER: 2 OF 7

PART NUMBER SELECTION

CLOSED TOP
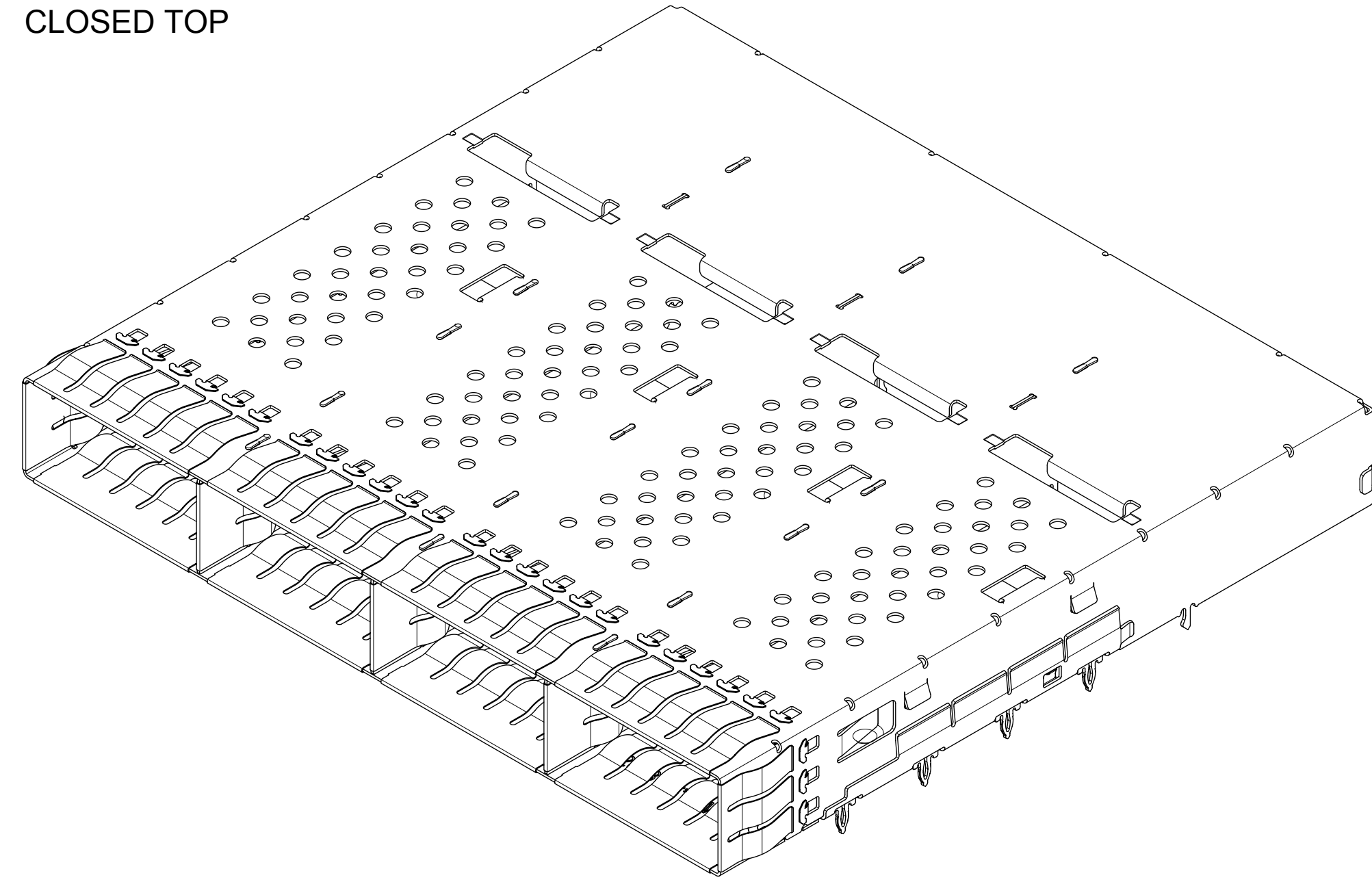
OPEN TOP
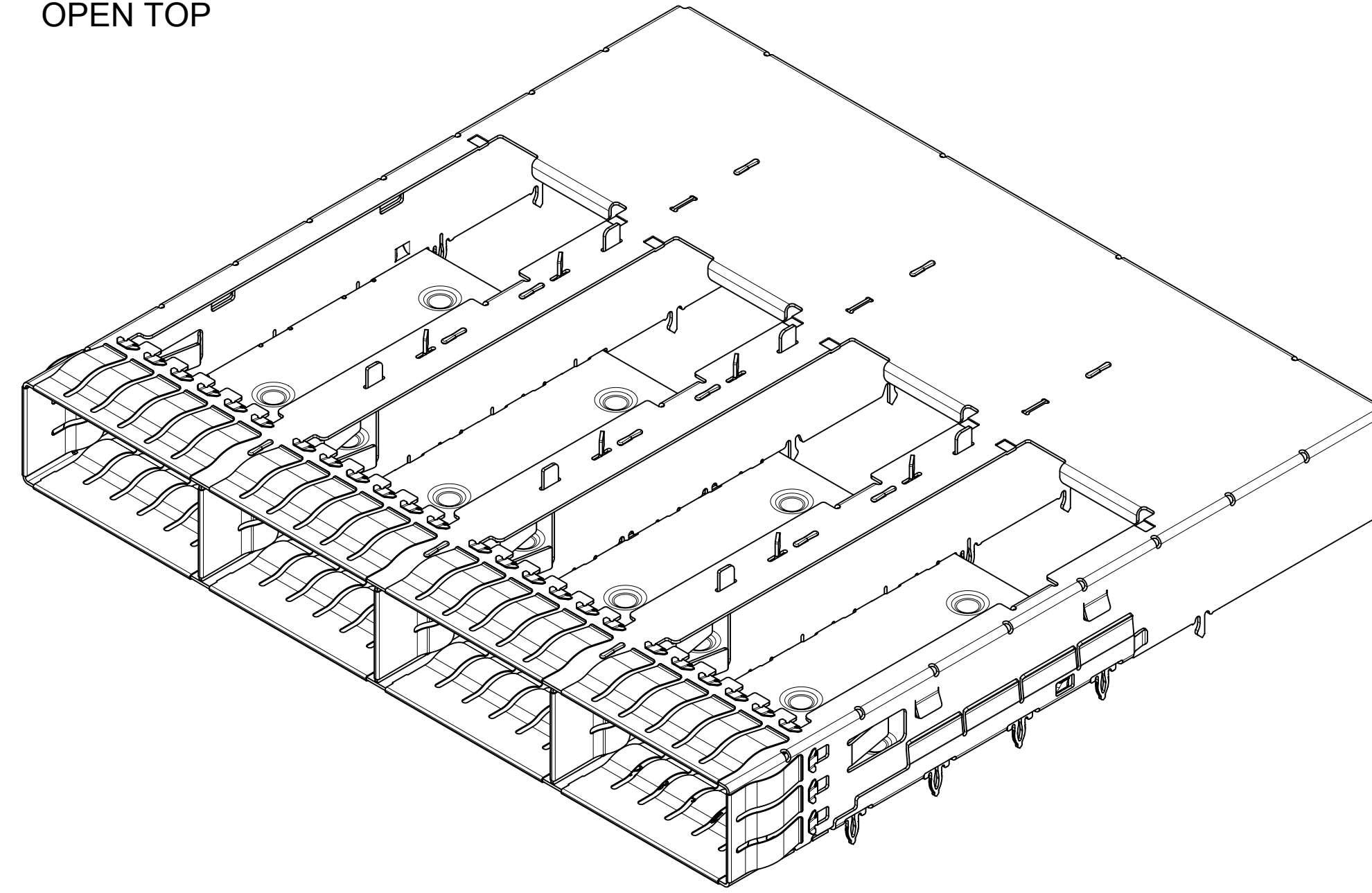
WITH HEAT SINK
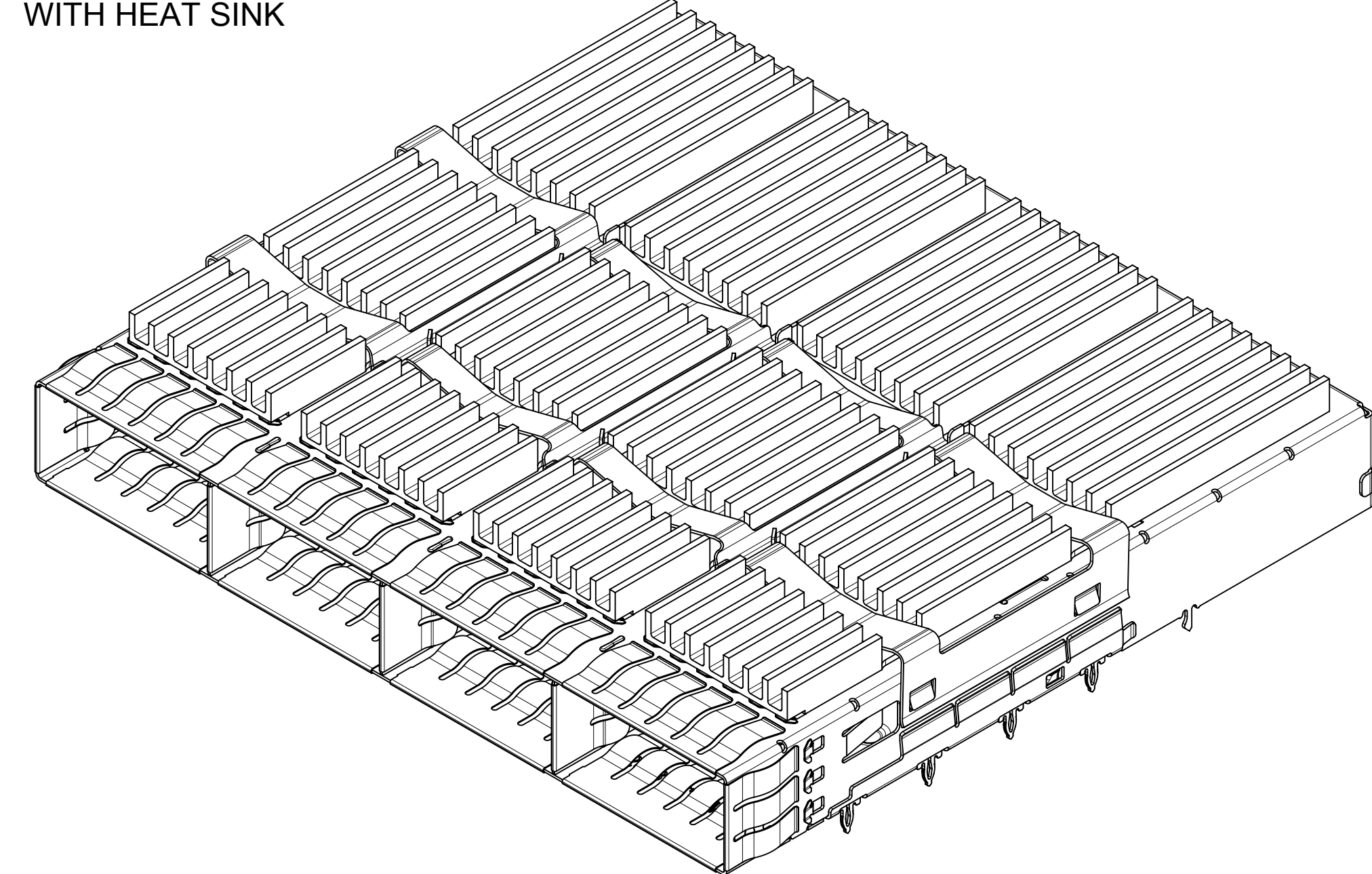
MOLEX P/N	# OF REAR LEGS PER PORT	WITH RAISED BASE
2033701243	0	NO
2033701244	1	NO

MOLEX P/N	# OF REAR LEGS PER PORT	WITH RAISED BASE
2033701253	0	NO
2033701254	1	NO
2033702253	0	YES
2033702254	1	YES

MOLEX P/N	HEAT SINK	# OF REAR LEGS PER PORT	WITH RAISED BASE
2033701346	PCI	0	NO
2033701347	SAN	0	NO
2033701348	NET	0	NO
2033701349	PCI	1	NO
2033701350	SAN	1	NO
2033701351	NET	1	NO
2033702346	PCI	0	YES
2033702347	SAN	0	YES
2033702348	NET	0	YES
2033702349	PCI	1	YES
2033702350	SAN	1	YES
2033702351	NET	1	YES

RAISED BASE OPTIONS

SCALE 2:1

WITHOUT RAISED BASE

WITH RAISED BASE

SYMBOLS		
▽ = 0		
▽ = 0		
▽ = 0		
▽ = 0		
▼ = 0		
▽ = 0		
⊠ = 0		
■ = 0		
▽ = 0		

DIMENSION UNITS: mm
SCALE: 2.5:1

GENERAL TOLERANCES (UNLESS SPECIFIED)
ANGULAR TOL ± 2.0°
4 PLACES ±
3 PLACES ±
2 PLACES ± 0.13
1 PLACE ± 0.25
0 PLACES ±
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

CURRENT REV DESC: SEE REVISION TABLE

EC NO: 629406
DRWN: JYEN01   2019/12/13
CHK'D: SCHIEN   2019/12/20
APPR: JCHIANG   2019/12/20

INITIAL REVISION:
DRWN: MKEMPEGOWDA   2017/07/21
APPR: RCHEN08   2017/08/15

THIRD ANGLE PROJECTION

DRAWING: D-SIZE
SERIES: 203370

molex

QSFP-DD 1X4 GANGED CAGE ASSY
SF WITH FIN H/S OPTIONS

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION
2033701201	PSD	ASY	D3

MATERIAL NUMBER
CUSTOMER: GENERAL MARKET
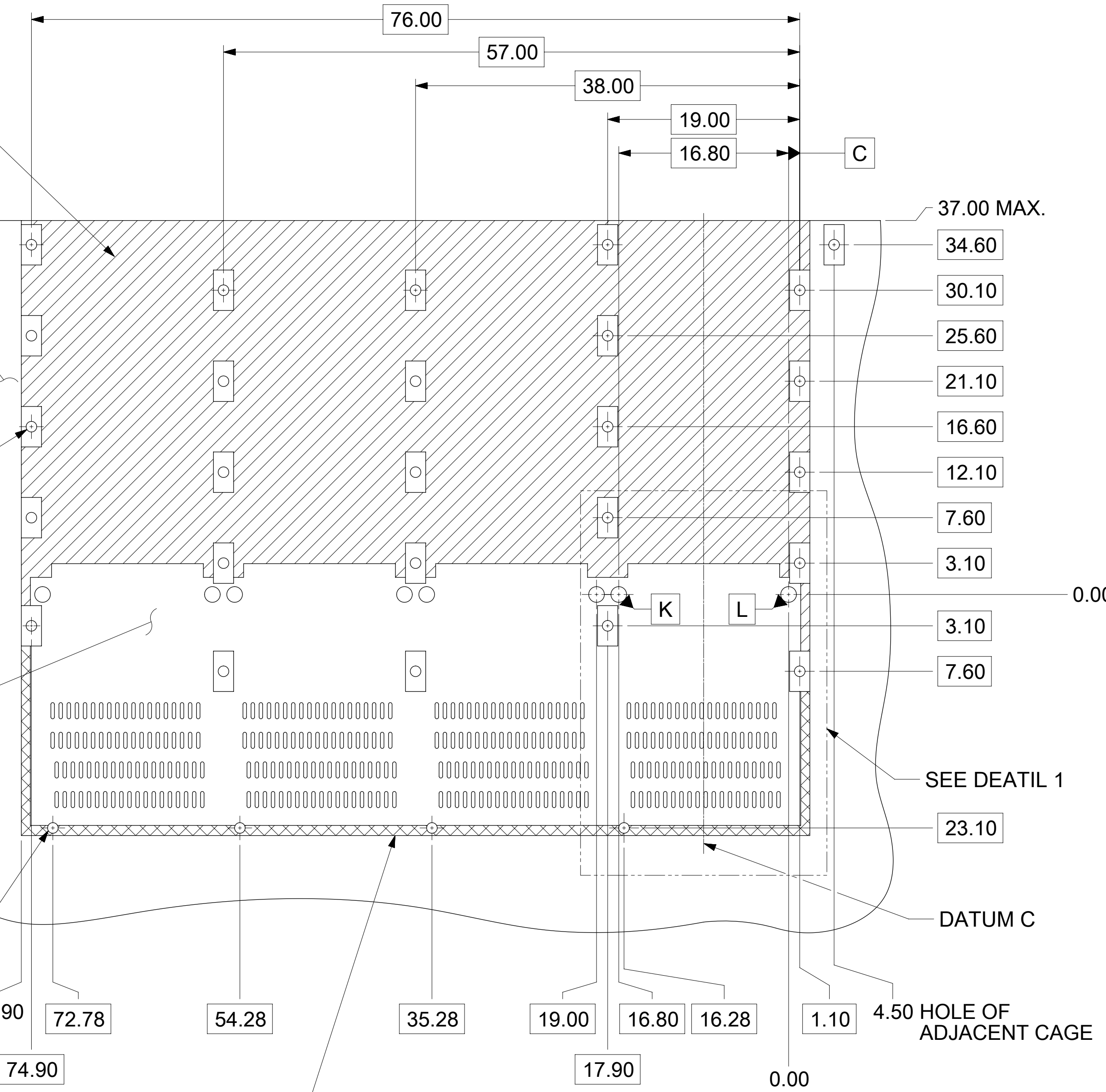SHEET NUMBER: 3 OF 7

PCB LAYOUT FOR SINGLE SIDED MOUNTING

HATCHED AREA DENOTES
COMPONENT KEEP-OUT AND
NO SURFACE TRACES.
(EXCEPT CHASSIS GROUND)

-A-

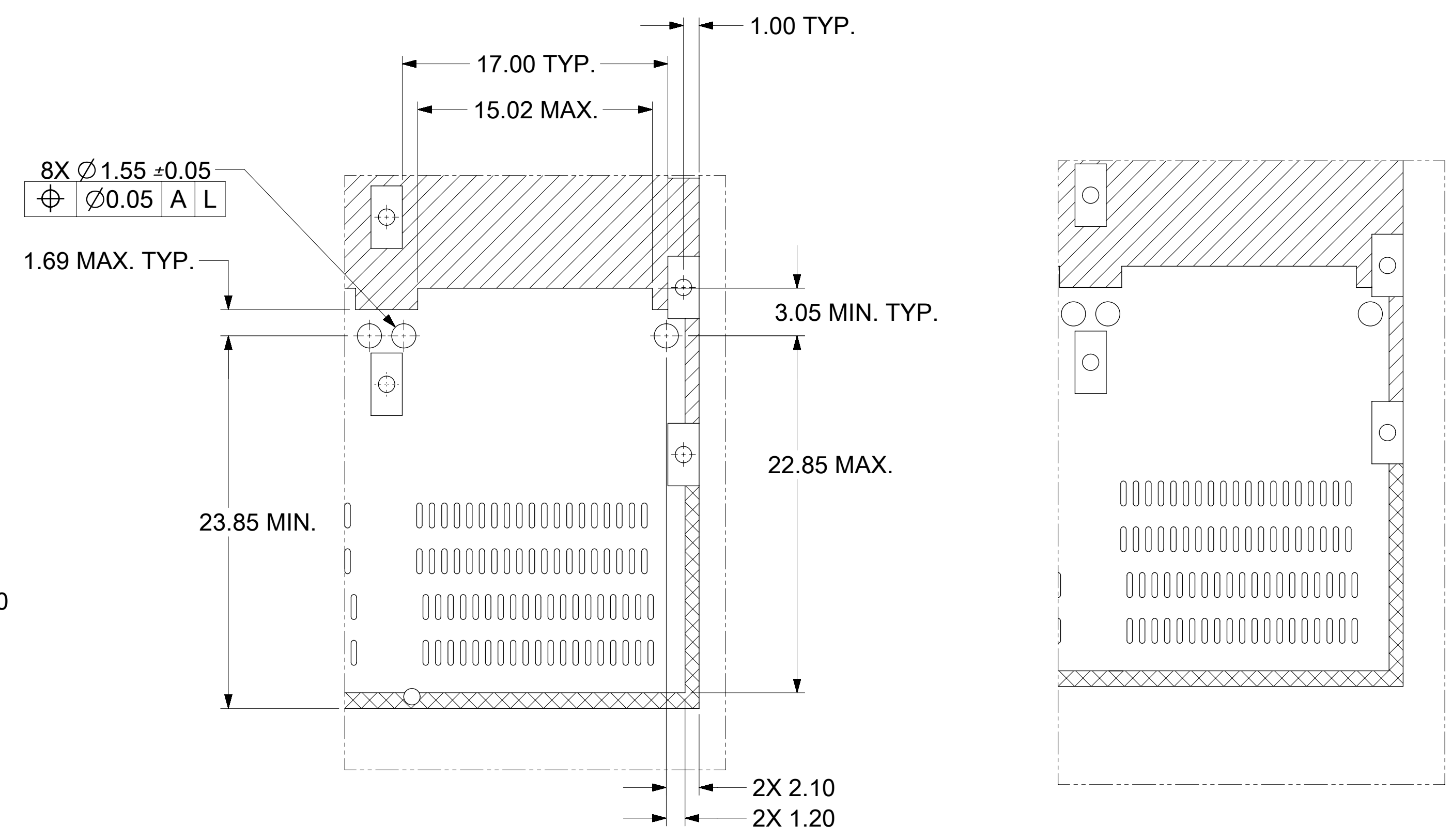DATUM -A- IS THE TOP
SURFACE OF HOST BOARD

29X ⌀1.05 ±0.05
⌖ ⌀0.05(M) A L-K C

AREA DENOTES COMPONENT
KEEP-OUT AND NO SURFACE
TRACES.(EXCEPT CHASSIS
GROUND)

76.00
57.00
38.00
19.00
16.80
C

37.00 MAX.
34.60
30.10
25.60
21.10
16.60
12.10
7.60
3.10
0.00
3.10
7.60

K   L

SEE DEATIL 1

23.10

DATUM C

HOLES FOR OPTIONAL
REAR LEGS

75.90   72.78   54.28   35.28   19.00   16.80 16.28   1.10   4.50 HOLE OF
                                                                      ADJACENT CAGE
74.90   17.90   0.00

CROSS HATCHED AREA DENOTES
COMPONENT KEEP-OUT AND NO
SURFACE TRACES.
(EXCEPT FOR CHASSIS GROUND)

HOST CONNECTOR DETAIL

8X ⌀1.55 ±0.05
⌖ ⌀0.05 A L

1.69 MAX. TYP.

23.85 MIN.

1.00 TYP.
17.00 TYP.
15.02 MAX.

3.05 MIN. TYP.

22.85 MAX.

2X 2.10
2X 1.20

1 REAR LEGS
DETAIL 1
SCALE 4:1

NO REAR LEGS
PARTIAL 1
SCALE 4:1

NOTES:
1. PADS AND VIAS GO TO CHASSIS GROUND. (RECOMMENDED PADS TO BE 2.00mm X 4.00mm RETANGLE.)
2. RECOMMENDED THRU HOLE PLATING INCLUDES HASL, OSP, OR IMMERSION (GOLD, SILVER, OR TIN).
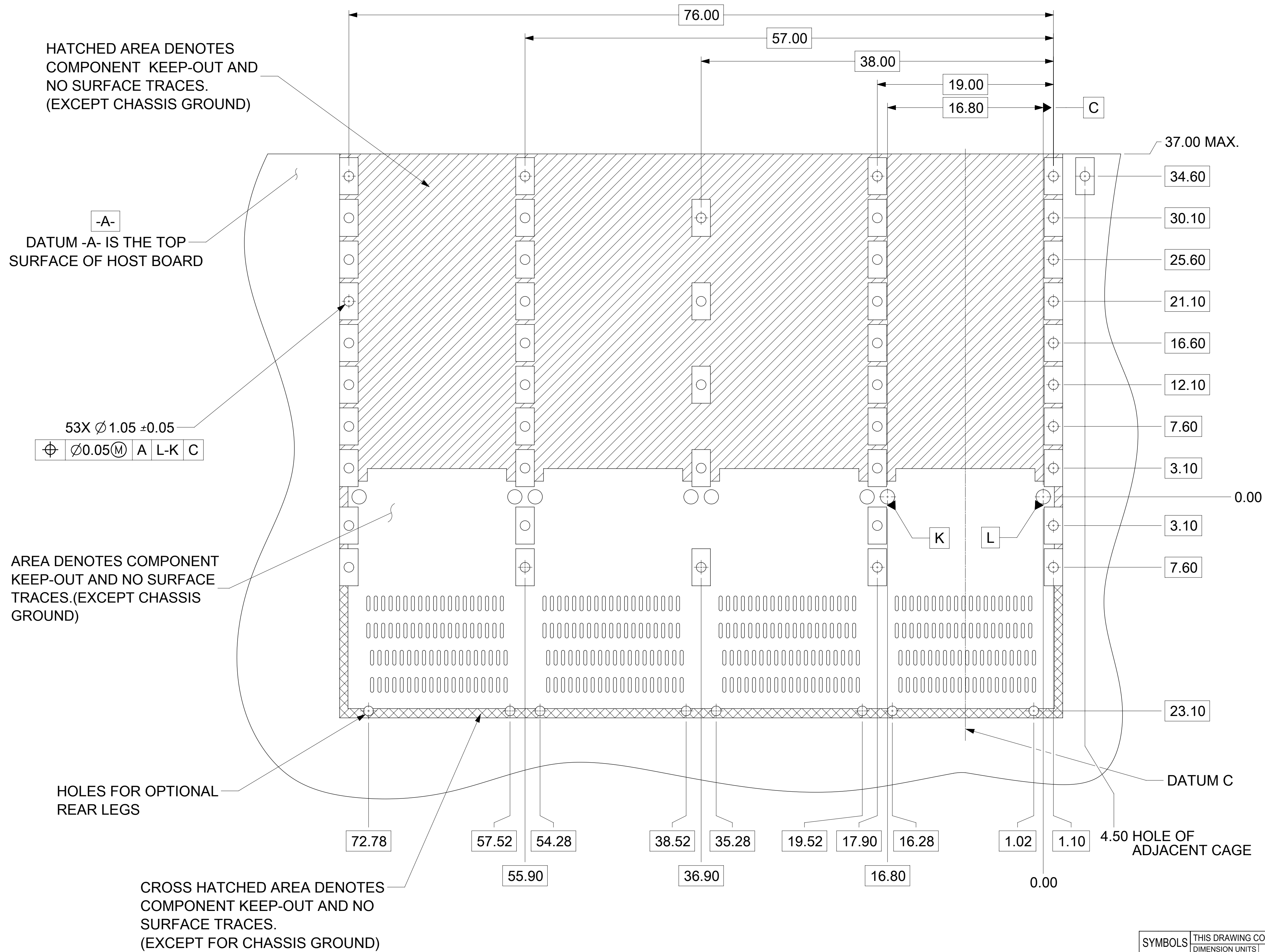3. CONNECTOR PAD LAYOUT PER QSFP-DD MSA WILL ACCOMODATE MOLEX CONNECTOR SERIES 202718.

DOCUMENT STATUS | P1 | RELEASE DATE | 2019/12/20 | 10:48:50

SYMBOLS				
▽ = 0	DIMENSION UNITS	SCALE	CURRENT REV DESC: SEE REVISION TABLE	
▽ = 0	mm	2:1		
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)			**molex**
▽ = 0	ANGULAR TOL ± 2.0°		EC NO: 629406	
▽ = 0	4 PLACES	±	DRWN: JYEN01 2019/12/13	QSFP-DD 1X4 GANGED CAGE ASSY SF WITH FIN H/S OPTIONS
▼ = 0	3 PLACES	±	CHK'D: SCHIEN 2019/12/20	
▽ = 0	2 PLACES	± 0.13	APPR: JCHIANG 2019/12/20	PRODUCT CUSTOMER DRAWING
⊠ = 0	1 PLACE	± 0.25	INITIAL REVISION:	DOCUMENT NUMBER / DOC TYPE / DOC PART / REVISION
■ = 0	0 PLACES	±	DRWN: MKEMPEGOWDA 2017/07/21	2033701201 / PSD / ASY / D3
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPR: RCHEN08 2017/08/15	
			THIRD ANGLE PROJECTION ⊕ ⊏⊟	DRAWING D-SIZE 203370	SERIES	MATERIAL NUMBER SEE P/N TABLE	CUSTOMER GENERAL MARKET	SHEET NUMBER 4 OF 7

PCB LAYOUT FOR BELLY TO BELLY MOUNTING

HATCHED AREA DENOTES
COMPONENT KEEP-OUT AND
NO SURFACE TRACES.
(EXCEPT CHASSIS GROUND)

76.00
57.00
38.00
19.00
16.80
C

37.00 MAX.
34.60
30.10
25.60
21.10
16.60
12.10
7.60
3.10
0.00
3.10
7.60
23.10

-A-
DATUM -A- IS THE TOP
SURFACE OF HOST BOARD

53X ⌀1.05 ±0.05
⌖ ⌀0.05Ⓜ A L-K C

AREA DENOTES COMPONENT
KEEP-OUT AND NO SURFACE
TRACES.(EXCEPT CHASSIS
GROUND)

K
L

HOLES FOR OPTIONAL
REAR LEGS

DATUM C

72.78
57.52
54.28
55.90
38.52
35.28
36.90
19.52
17.90
16.28
16.80
1.02
1.10
0.00
4.50 HOLE OF
ADJACENT CAGE

CROSS HATCHED AREA DENOTES
COMPONENT KEEP-OUT AND NO
SURFACE TRACES.
(EXCEPT FOR CHASSIS GROUND)

NOTE:
SEE SHEET 4 FOR
HOST CONNECTOR DETAIL

NOTES:
1. PADS AND VIAS GO TO CHASSIS GROUND. (RECOMMENDED PADS TO BE 2.00mm X 4.00mm RETANGLE.)
2. RECOMMENDED THRU HOLE PLATING INCLUDES HASL, OSP, OR IMMERSION (GOLD, SILVER, OR TIN).
3. CONNECTOR PAD LAYOUT PER QSFP-DD WILL ACCOMODATE MOLEX CONNECTOR SERRIES 202718.

SYMBOLS		
▽ = 0	DIMENSION UNITS	SCALE
▽ = 0	mm	3:1
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)	
▽ = 0	ANGULAR TOL ± 2.0°	
▽ = 0	4 PLACES ±	
▽ = 0	3 PLACES ±	
▼ = 0	2 PLACES ± 0.13	
▽ = 0	1 PLACE ± 0.25	
⊠ = 0	0 PLACES ±	
■ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	
▽ = 0		

CURRENT REV DESC: SEE REVISION TABLE

EC NO: 629406
DRWN: JYEN01 2019/12/13
CHK'D: SCHIEN 2019/12/20
APPR: JCHIANG 2019/12/20

INITIAL REVISION:
DRWN: MKEMPEGOWDA 2017/07/21
APPR: RCHEN08 2017/08/15

THIRD ANGLE PROJECTION ⊕ ⊏
D-SIZE 203370

molex

QSFP-DD 1X4 GANGED CAGE ASSY
SF WITH FIN H/S OPTIONS

PRODUCT CUSTOMER DRAWING

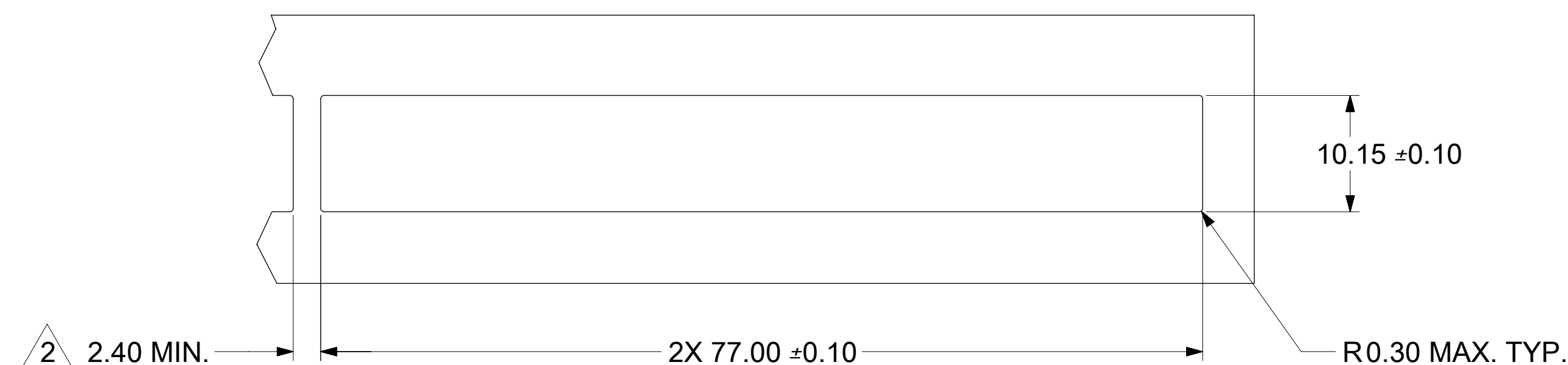| DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION
2033701201	PSD	ASY	D3

DRAWING	SERIES	MATERIAL NUMBER	CUSTOMER	SHEET NUMBER
203370	SEE P/N TABLE		GENERAL MARKET	5 OF 7

BEZEL AND BOARD POSITION DIMENSIONS
FOR BELLY TO BELLY MOUNTING

43.8 REF.
(BEZEL CENTERLINE)

43.3 ±0.3 (BACK OF BEZEL)

CUTAWAY 2

0.15 ±0.10
BEZEL OPENING BELOW
TO PCB PAD SURFACE

2X 9.75 REF.
(TOP OF CAGE TO PAD SURFACE)

0.15 ±0.10
BEZEL OPENING ABOVE
TO PCB PAD SURFACE

CUTAWAY 1

1.00 REF

10.15 ±0.10

SEE NOTE 1

10.15 ±0.10

R0.30 MAX. TYP.

2 2.40 MIN.

2X 77.00 ±0.10
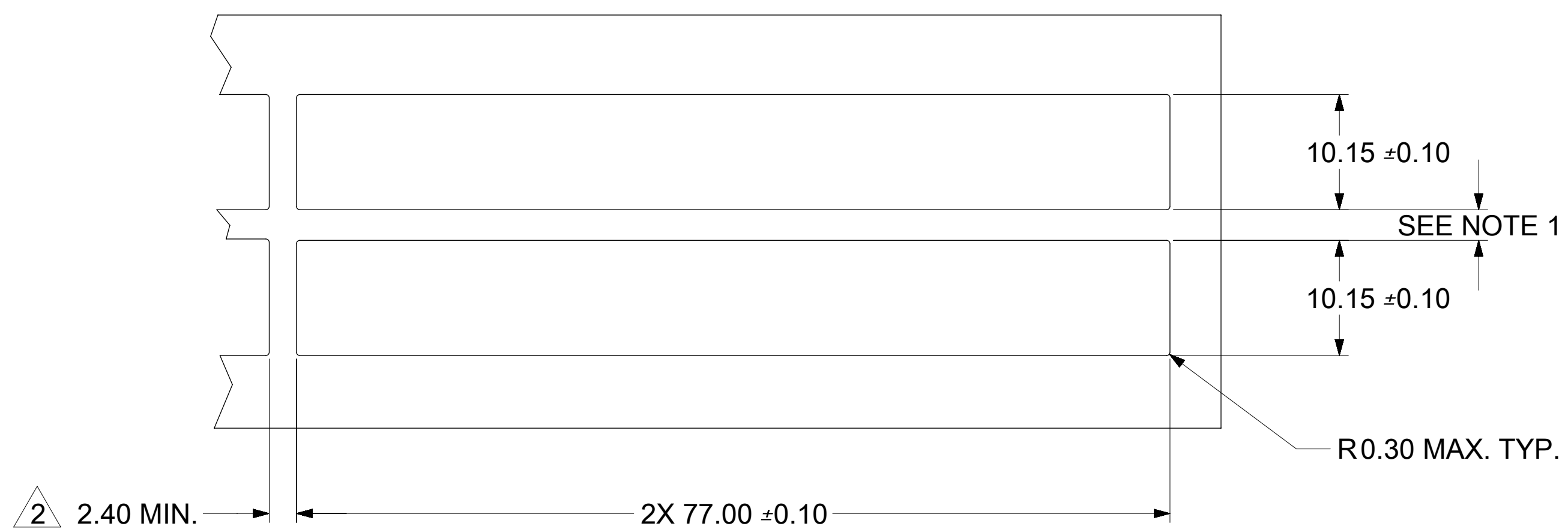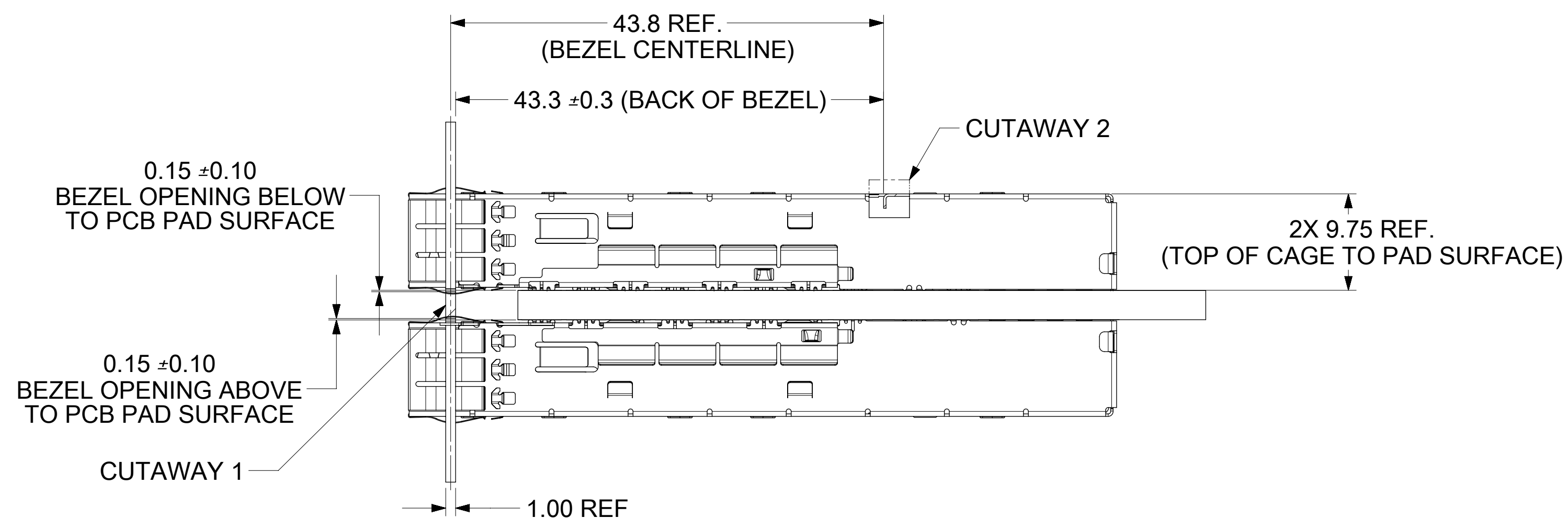
BEZEL AND BOARD POSITION DIMENSIONS
FOR SINGLE SIDE MOUNTING

43.8 REF.
(BEZEL CENTERLINE)

43.3 ±0.3 (BACK OF BEZEL)

CUTAWAY 4

0.15 ±0.10
BEZEL OPENING BELOW
TO PCB PAD SURFACE

9.75 REF.
(TOP OF CAGE TO PAD SURFACE)

CUTAWAY 3

8.70 REF.

1.00 REF.

10.15 ±0.10

2 2.40 MIN.

2X 77.00 ±0.10

R0.30 MAX. TYP.
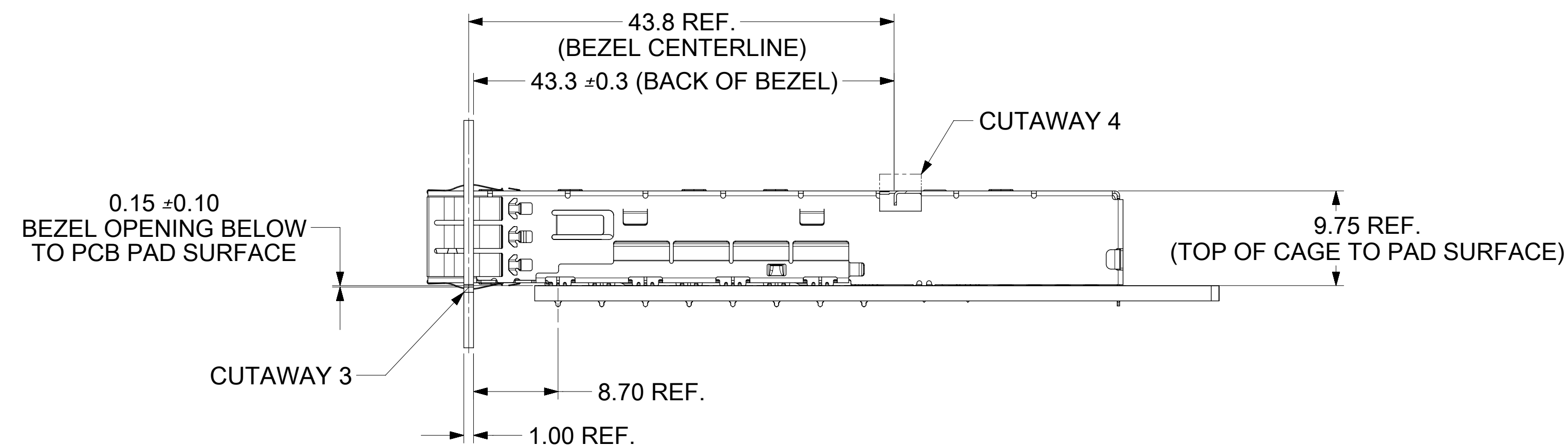
NOTE:
1. PCB THICKNESS VARIATION MUST BE CONSIDERED WHEN DETERMINING
   BEZEL OPENING LOCATION.
2. THIS DIMENSION IS FOR REFERENCE ONLY. USER CAN MODIFY UT DEPENDS ON APPLICATION.
   (THIS DIMENSION VARIES BASED ON DISTANCE OF "HOLE OF ADJACENT CAGE" ON PCB LAYOUT.)

SYMBOLS			
▽ = 0			
▽ = 0			
▽ = 0			
◇ = 0			
▼ = 0			
▽ = 0			
⊠ = 0			
■ = 0			
▽ = 0			

DIMENSION UNITS: mm
SCALE: 2.5:1

CURRENT REV DESC: SEE REVISION TABLE

GENERAL TOLERANCES
(UNLESS SPECIFIED)
ANGULAR TOL ± 2.0 °

4 PLACES	±
3 PLACES	±
2 PLACES	± 0.13
1 PLACE	± 0.25
0 PLACES	±

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

EC NO: 629406
DRWN: JYEN01   2019/12/13
CHK'D: SCHIEN   2019/12/20
APPR: JCHIANG   2019/12/20

INITIAL REVISION:
DRWN: MKEMPEGOWDA 2017/07/21
APPR: RCHEN08   2017/08/15

THIRD ANGLE PROJECTION: ⊕ ⊏⊐

D-SIZE 203370

molex

QSFP-DD 1X4 GANGED CAGE ASSY
SF WITH FIN H/S OPTIONS

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION
2033701201	PSD	ASY	D3

MATERIAL NUMBER: SEE P/N TABLE
CUSTOMER: GENERAL MARKET
SHEET NUMBER: 6 OF 7

REV	DATE	DESCRIPTION
A	2017/07/25	INITIAL RELEASE
A1	2017/08/25	SHEET 3: G11: UPDATED OPEN TOP ISO VIEW.
A2	2017/09/27	MODIFIED THE DOCUMENT TYPE FROM RSD TO SD
B	2017/11/06	SHEET 4: G18: AS PER THE QSFP-DD MSA TO CORRECTED TP TOLERANCE FROM 0.1 TO 0.05mm.
		J09: AS PER THE QSFP-DD MSA TO ADDED TP TOLERANCE AS 0.05mm AND CHANGED 1.55REF. TO 1.55±0.05mm.
		SHEET 5: C18: AS PER THE QSFP-DD MSA TO CORRECTED TP TOLERANCE FROM 0.1 TO 0.05mm.
C	2018/02/27	SHEET 1: K17: ADDED DIMENSION 76.85 REF.
		SHEET 2: D04: ADDED A BACK VIEW.
		SHEET 4: H18: ADDED "29X" INTO DIMENSION 1.05mm.
		J09: CHANGED "TYP." TO "8X" OF DIMENSION 1.55mm.
		K12: AS PER THE QSFP-DD MSA TO ADDED BASIC DIMENSION 16.80 AND DATUM C.
		H17: UPDATED TRUE POSITION DATUM FROM A, K AND L TO A, L-K AND C.
		SHEET 5: G17: CHANGED "TYP." TO "53X" OF DIMENSION 1.05mm.
		K09: AS PER THE QSFP-DD MSA TO ADDED BASIC DIMENSION 16.80 AND DATUM C.
		G17: UPDATED TRUE POSITION DATUM FROM A, K AND L TO A, L-K AND C
D	2019/05/02	OPEN TOP SERIES PRODUCT RELLOCATED TO DRAWING NUMBER 2033702201.
		SHEET 3(D16) & SHEET 4(B16) : UPDATE RECOMMEND PCB LAYOUT OF TRACE KEEP-OUT ZONE.
D1	2019/07/10	SHEET 3: ADDED NEW P/Ns(-2XXX, WITH RAISED BASE).
D2	2019/08/01	SHEET 3 : G5 : ADDED A COLUMN FOR TYPES OF HEAT SINK.
D3	2019/12/13	SHEET 6 : E2 & E12 : CHANGED R0.30 TYP. TO R0.30 MAX. TYP.
		SHEET 6 : H6 & H16 : CHANGED BEZEL THICKNESS FROM 1.60 REF. TO 1.00 REF.
		SHEET 6 : K6 & K16 : CHANGED FROM 43.0 ±0.3 TO 43.3 ±0.3
		SHEET 6 : H6 : CHANGED FROM 8.40 REF. TO 8.70 REF.

SYMBOLS

▽ = 0	
▽ = 0	
▽ = 0	
▽ = 0	
▼ = 0	
▽ = 0	
⊠ = 0	
■ = 0	
▽ = 0	

DIMENSION UNITS: mm
SCALE: 1:1

GENERAL TOLERANCES (UNLESS SPECIFIED)

ANGULAR TOL ± 2.0 °

4 PLACES	±
3 PLACES	±
2 PLACES	± 0.13
1 PLACE	± 0.25
0 PLACES	±

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

CURRENT REV DESC: SEE REVISION TABLE

EC NO: 629406
DRWN: JYEN01 — 2019/12/13
CHK'D: SCHIEN — 2019/12/20
APPR: JCHIANG — 2019/12/20

INITIAL REVISION:
DRWN: MKEMPEGOWDA — 2017/07/21
APPR: RCHEN08 — 2017/08/15

THIRD ANGLE PROJECTION

DRAWING: D-SIZE
SERIES: 203370

molex

QSFP-DD 1X4 GANGED CAGE ASSY
SF WITH FIN H/S OPTIONS

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER: 2033701201
DOC TYPE: PSD
DOC PART: ASY
REVISION: D3

MATERIAL NUMBER: SEE P/N TABLE
CUSTOMER: GENERAL MARKET

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