



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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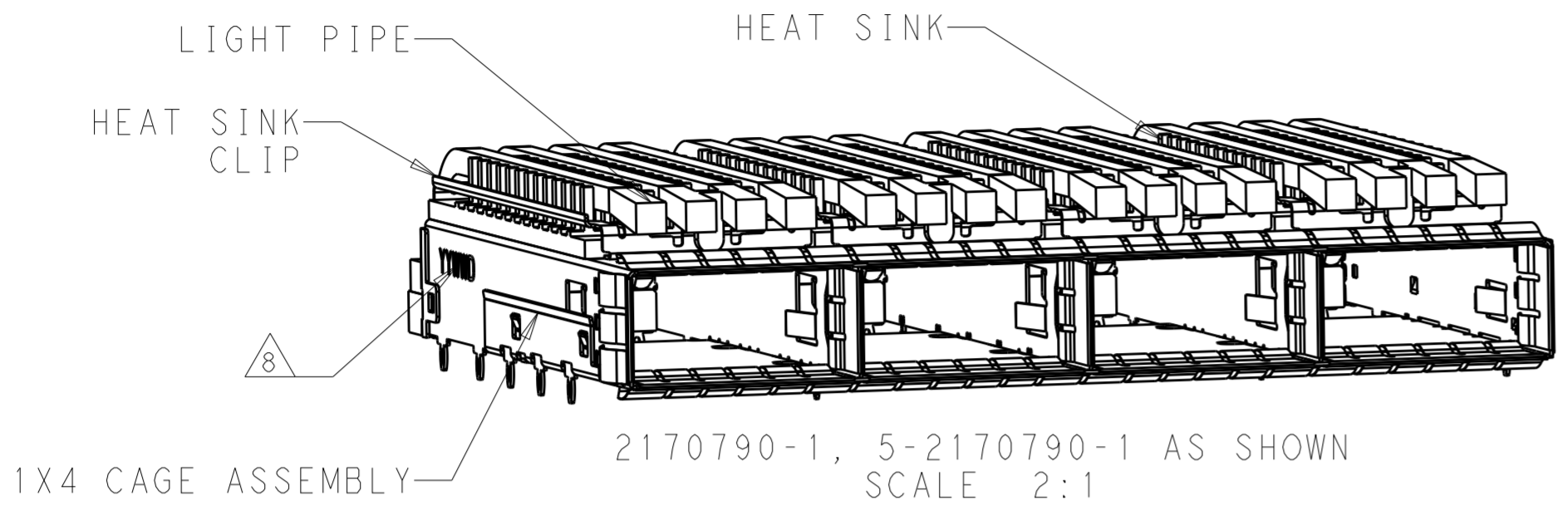
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

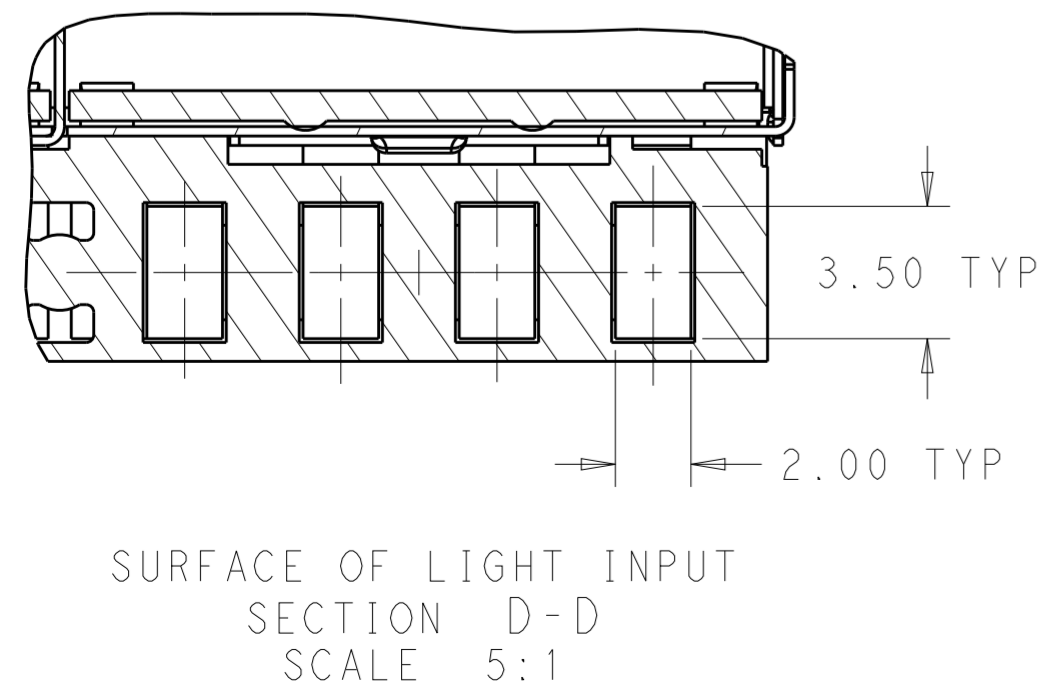
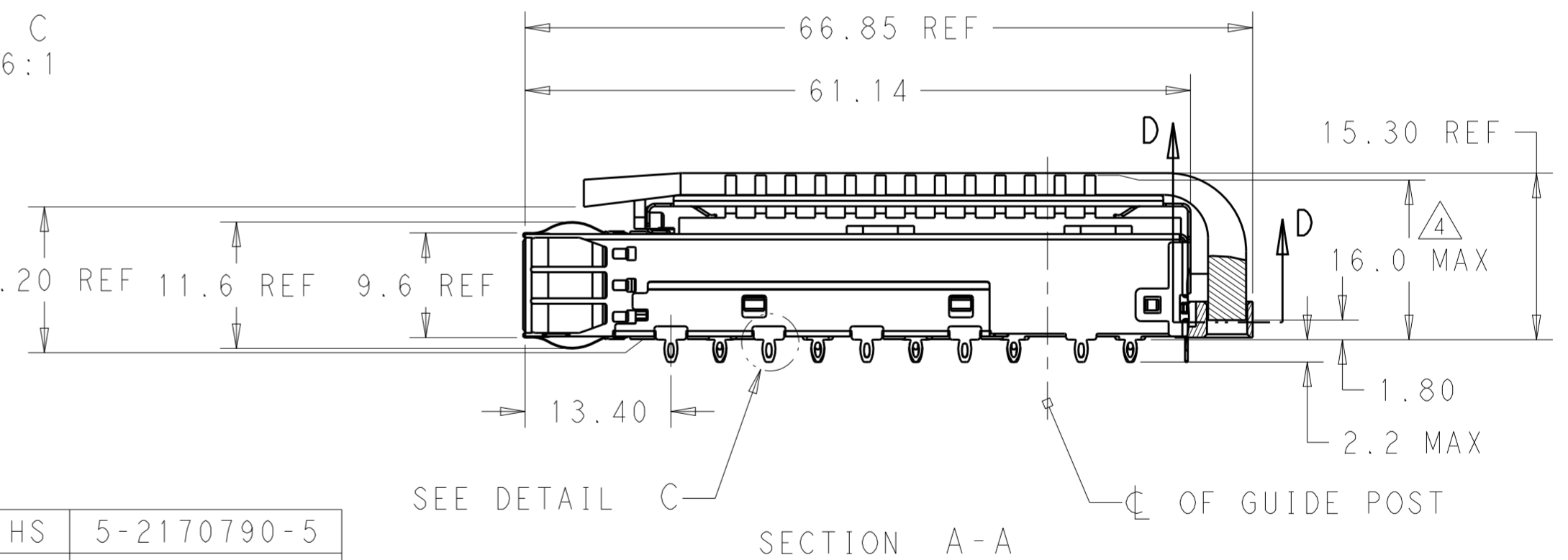
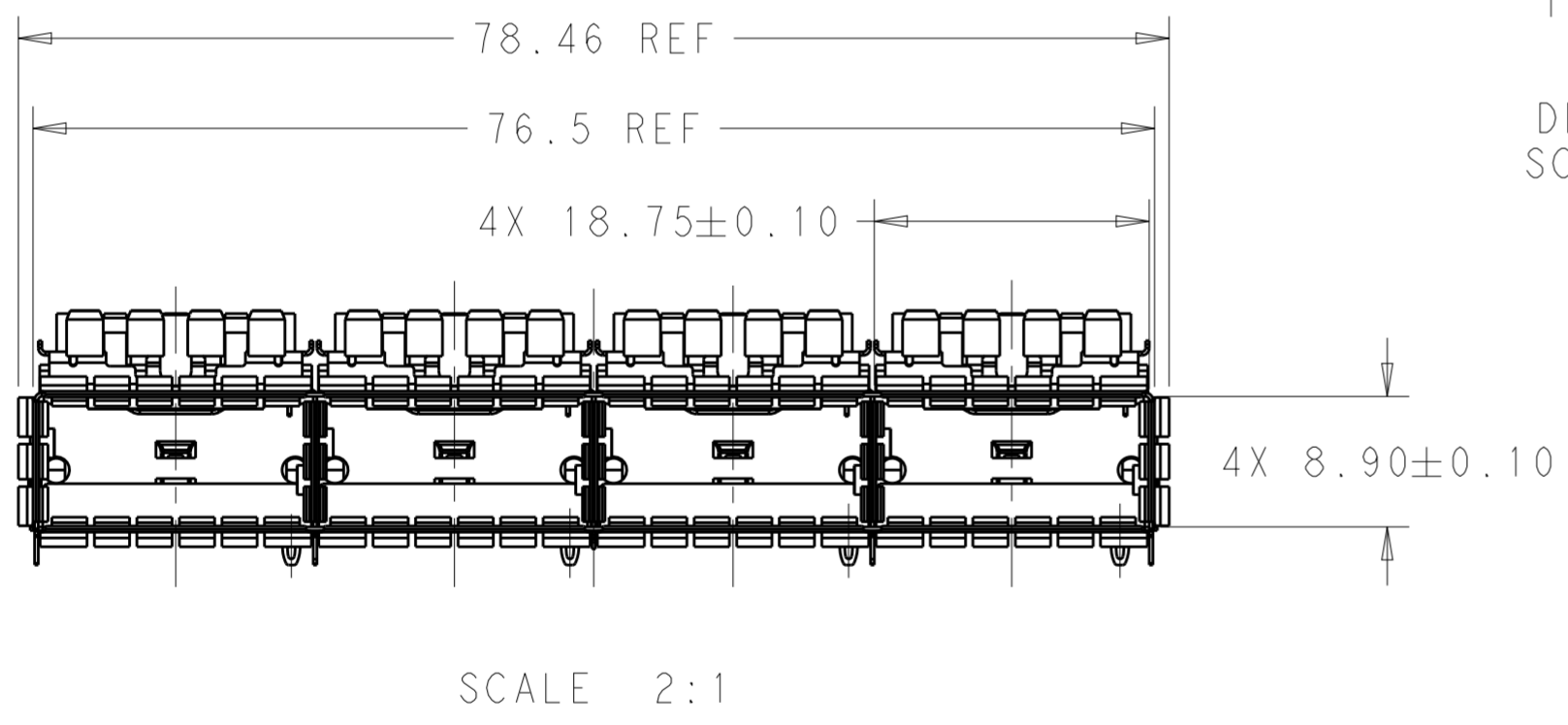
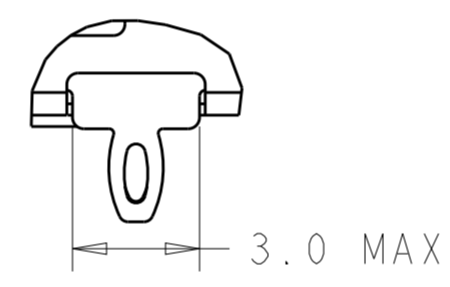


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REVISIONS				
P	LTR	DESCRIPTION	DATE	APVD
A		RELEASE	31OCT2016	JY SH



- COMPONENTS  
 CAGE ASSEMBLY: NICKEL-SILVER ALLOY  
 HEAT SINK: ALUMINUM/BLACK ANODIZE  
 HEAT SINK CLIP: STAINLESS STEEL  
 EMI SPRING: COPPER ALLOY/NICKEL PLATE  
 LIGHT PIPE: CLEAR POLYCARBONATE WITH UL 94 V\_0  
 ORGANIZER: POLYESTER WITH UL 94 V\_0
- REFERENCE APPLICATION SPECIFICATION 114-32023 FOR RECOMMENDED DRILL HOLE DIAMETER AND PLATING THICKNESS
- DATUM AND BASIC DIMENSION ESTABLISHED BY CUSTOMER
- DIMENSION APPLIES WITH MODULE INSERTED IN CAGE
- HEAT SINKS, HEAT SINK CLIPS AND LIGHT PIPES ARE SHIPPED ASSEMBLED ON CAGE
- MINIMUM PC BOARD THICKNESS: SINGLE SIDED: 1.57 MIN  
DOUBLE SIDED: 2.20 MIN
- MATES WITH QSFP28 MSA COMPATIBLE TRANSCEIVER.
- DATE CODE (YYWWD) MARKED APPROXIMATELY AS SHOWN.
- THESE SPEC ARE OPTIONAL WHEN THE LIGHT PIPES ARE REMOVED.



W/ COATING	CUSTOMERIZED HS	5-2170790-5
W/ COATING	CUSTOMERIZED HS	5-2170790-4
W/ COATING	CUSTOMERIZED HS	5-2170790-3
W/ COATING	CUSTOMERIZED HS	5-2170790-2
W/ COATING	SAN HS	5-2170790-1
N/A	CUSTOMERIZED HS	2170790-6
W/O COATING	CUSTOMERIZED HS	2170790-5
W/O COATING	CUSTOMERIZED HS	2170790-4
W/O COATING	CUSTOMERIZED HS	2170790-3
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W/O COATING	SAN HS	2170790-1
LP OPTION	HS OPTION	PART NUMBER

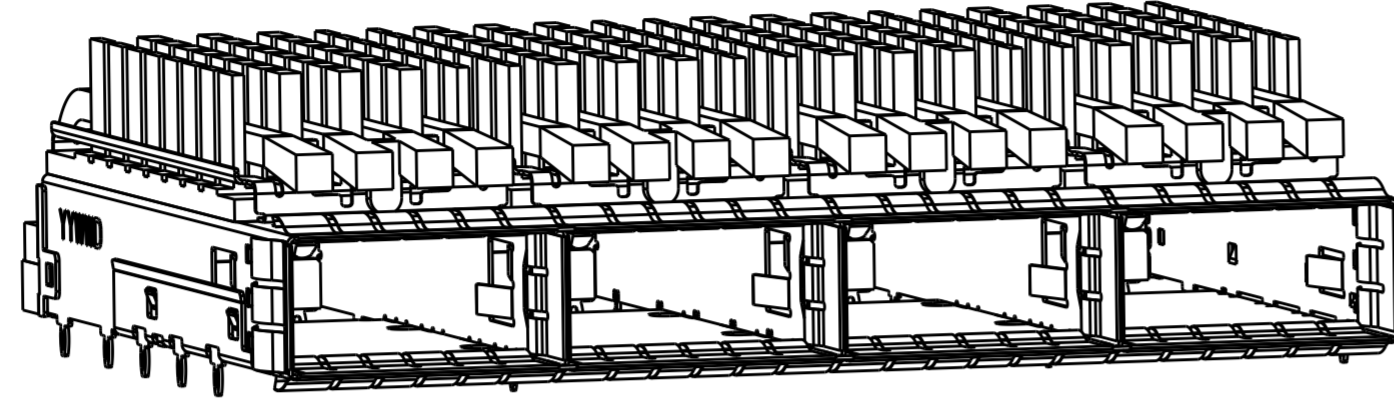
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MATERIAL SEE NOTES	SEE NOTES	PRODUCT SPEC 108-19428 APPLICATION SPEC 114-32023 WEIGHT - CUSTOMER DRAWING	

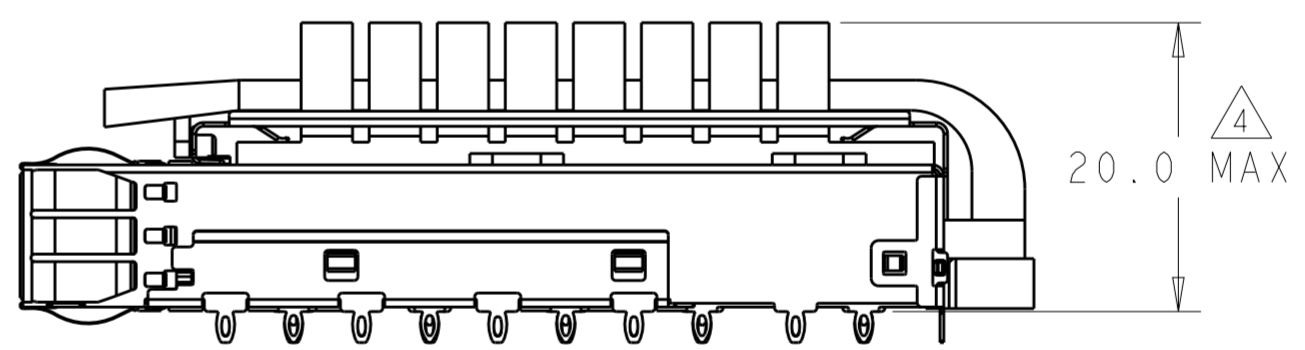
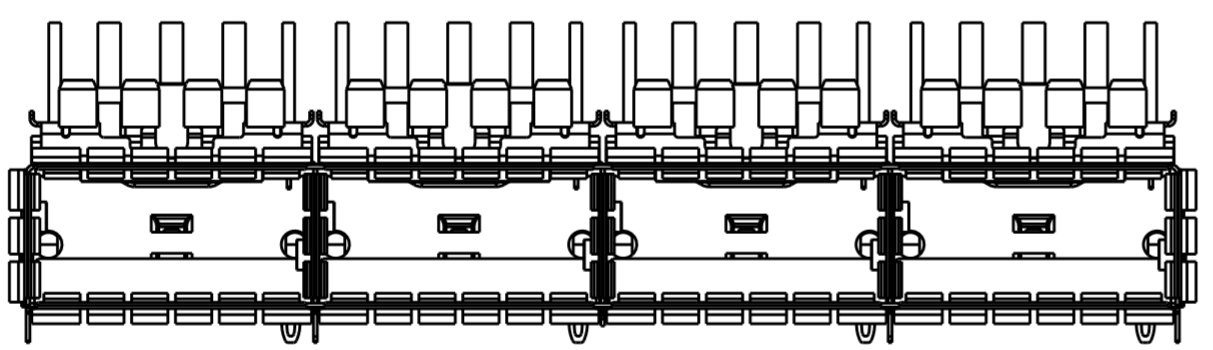
SCALE 3:1 SHEET 1 OF 10 REV A

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



2170790-2, 5-2170790-2 AS SHOWN  
 CUSTOMERIZED HEAT SINK  
 SCALE 2:1

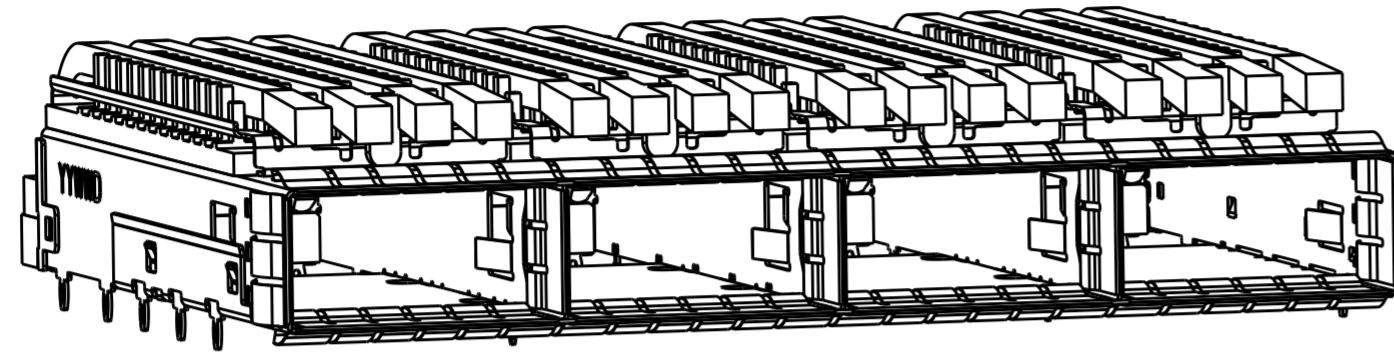


2170790-2, 5-2170790-2  
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 SCALE 2:1

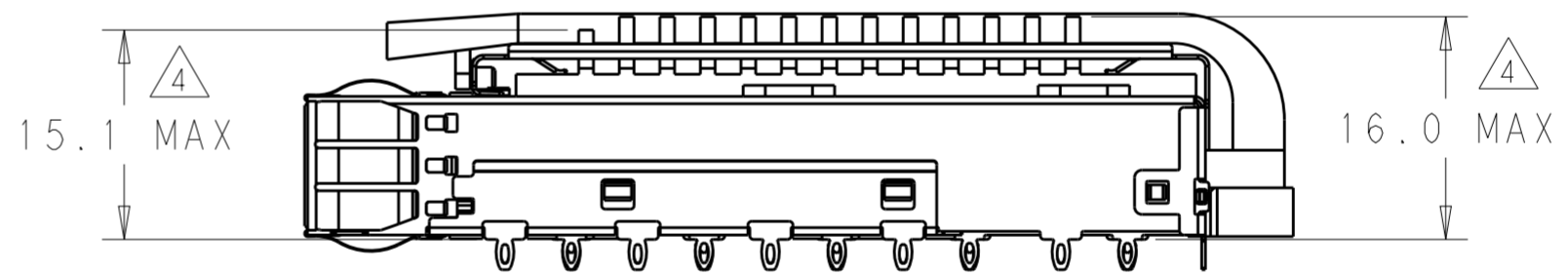
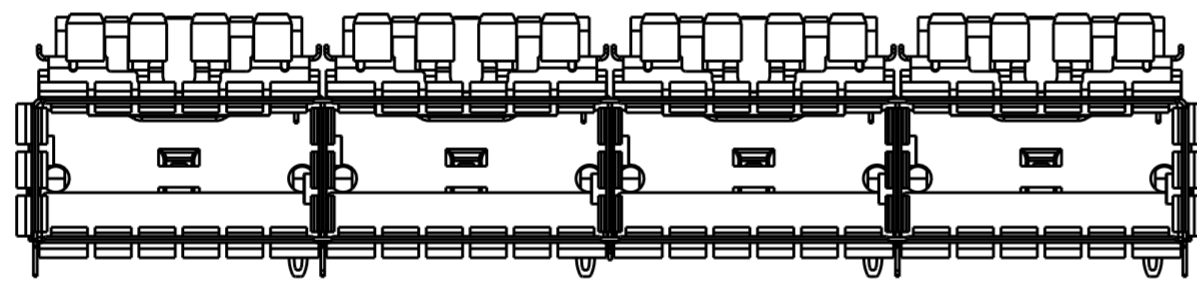
THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN 30 JUN 2014 JASON YANG	<b>STE</b> TE Connectivity	
		CHK 19 FEB 2016 SEAN HAN		
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	0 PLC ± 1 PLC ±0.25 2 PLC ±0.2 3 PLC ± 4 PLC ± ANGLES ± FINISH	PRODUCT SPEC 108-19428	SIZE 114-32023	RESTRICTED TO -
MATERIAL SEE NOTES	SEE NOTES	WEIGHT -	SCALE 3:1	SHEET 2 OF 10
		CUSTOMER DRAWING	DRAWING NO A200779C-2170790	REV A

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



2170790-3, 5-2170790-3 AS SHOWN  
 CUSTOMERIZED HEAT SINK  
 SCALE 2:1

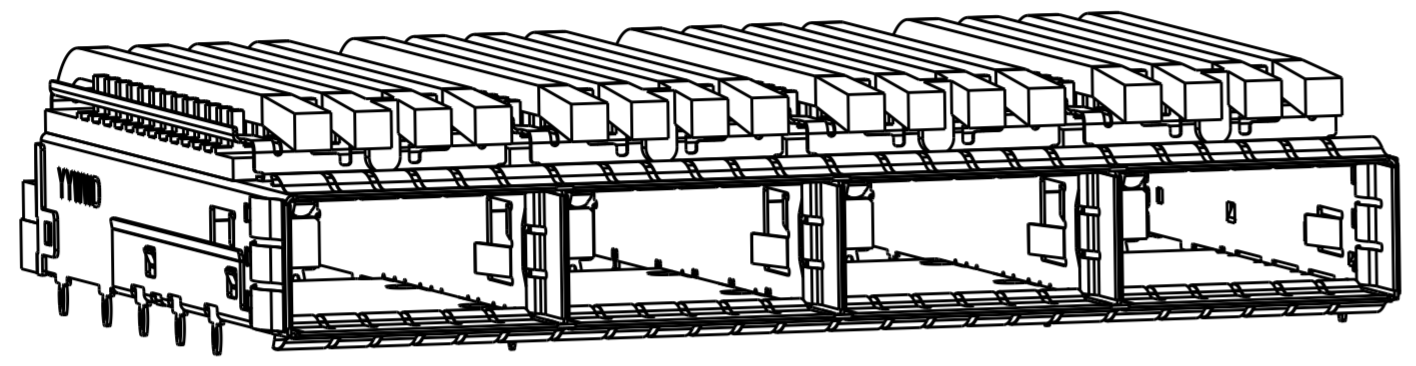


2170790-3, 5-2170790-3  
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 SCALE 2:1

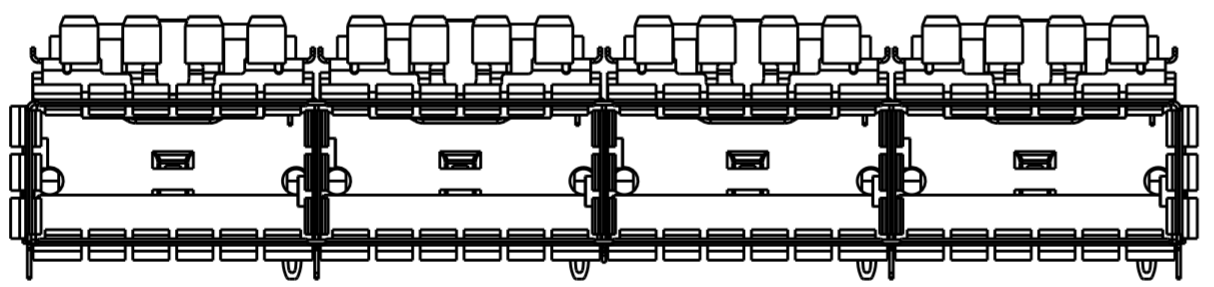
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		CHK 19 FEB 2016 SEAN HAN		
DIMENSIONS:	TOLERANCES UNLESS OTHERWISE SPECIFIED:	APVD -	NAME CAGE ASSEMBLY, QSFP28, 1X4 WITH HEAT SINKS AND LIGHT PIPES, THRU BEZEL, SPRING	
mm	0 PLC ± 1 PLC ±0.25 2 PLC ±0.2 3 PLC ± 4 PLC ±	PRODUCT SPEC 108-19428	SIZE CAGE CODE DRAWING NO RESTRICTED TO	
MATERIAL SEE NOTES	FINISH SEE NOTES	APPLICATION SPEC 114-32023	A200779 C-2170790	
		WEIGHT -	SCALE 3:1 SHEET 3 OF 10 REV A	
		CUSTOMER DRAWING		

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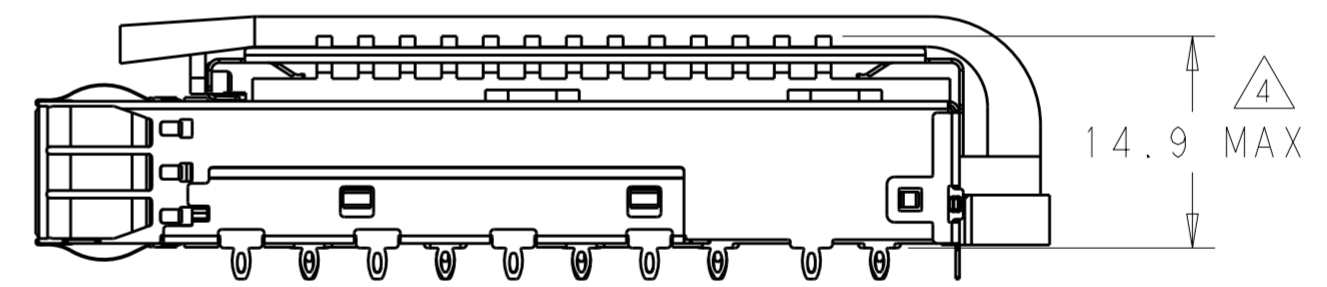
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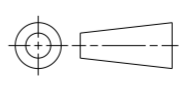


2170790-4, 5-2170790-4 AS SHOWN  
 CUSTOMERIZED HEAT SINK  
 SCALE 2:1



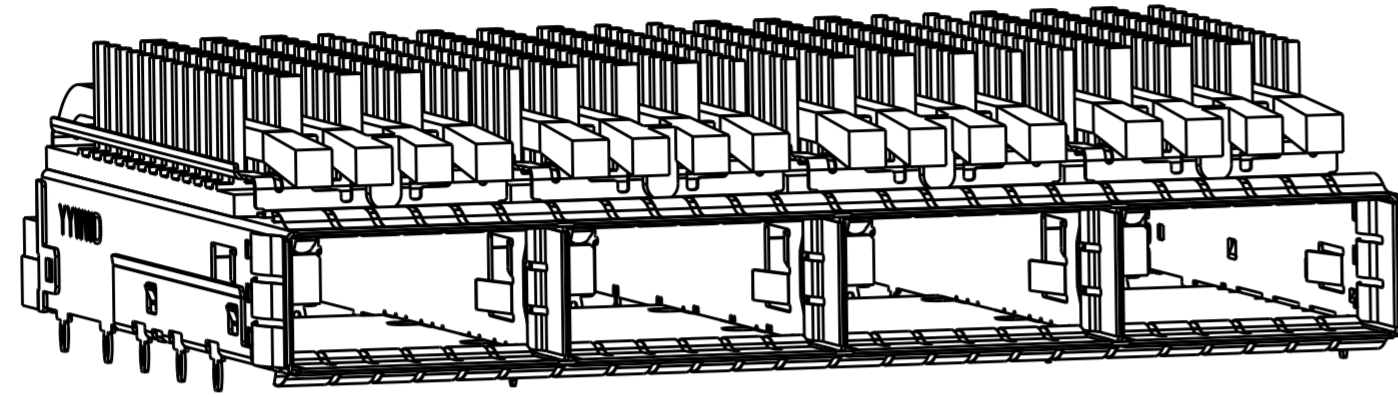
2170790-4, 5-2170790-4  
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 SCALE 2:1



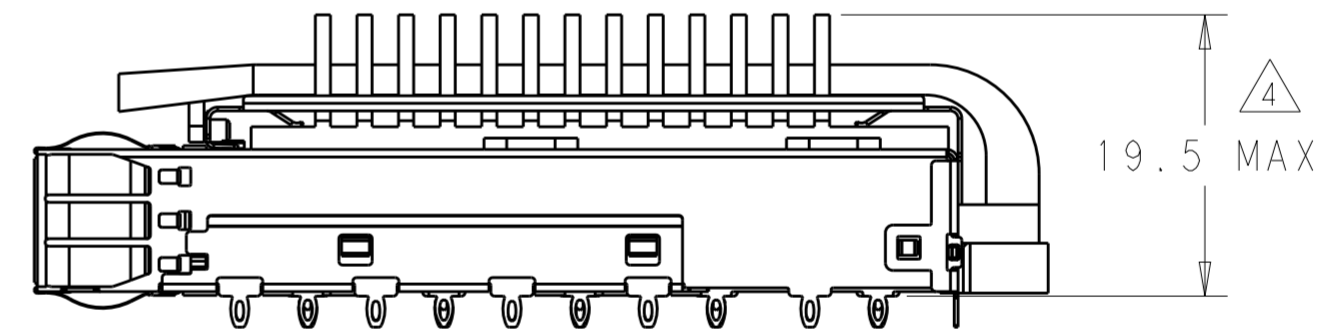
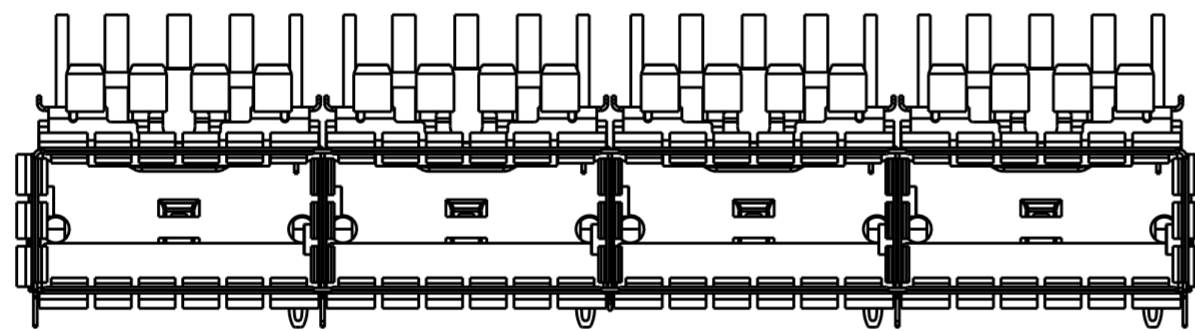
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		CHK SEAN HAN 19 FEB 2016		
DIMENSIONS: mm	TOLERANCES UNLESS OTHERWISE SPECIFIED:	APVD -	NAME CAGE ASSEMBLY, QSFP28, 1X4 WITH HEAT SINKS AND LIGHT PIPES, THRU BEZEL, SPRING	
	0 PLC ± 1 PLC ±0.25 2 PLC ±0.2 3 PLC ± 4 PLC ±	PRODUCT SPEC 108-19428	SIZE A200779	CAGE CODE C-2170790
	ANGLES ± FINISH	APPLICATION SPEC 114-32023	DRAWING NO C-2170790	RESTRICTED TO -
MATERIAL SEE NOTES	SEE NOTES	WEIGHT -	SCALE 3:1 SHEET 4 OF 10 REV A	
		CUSTOMER DRAWING		

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REVISIONS				
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-		SEE SHEET 1	-	-



2170790-5, 5-2170790-5 AS SHOWN  
 CUSTOMERIZED HEAT SINK  
 SCALE 2:1

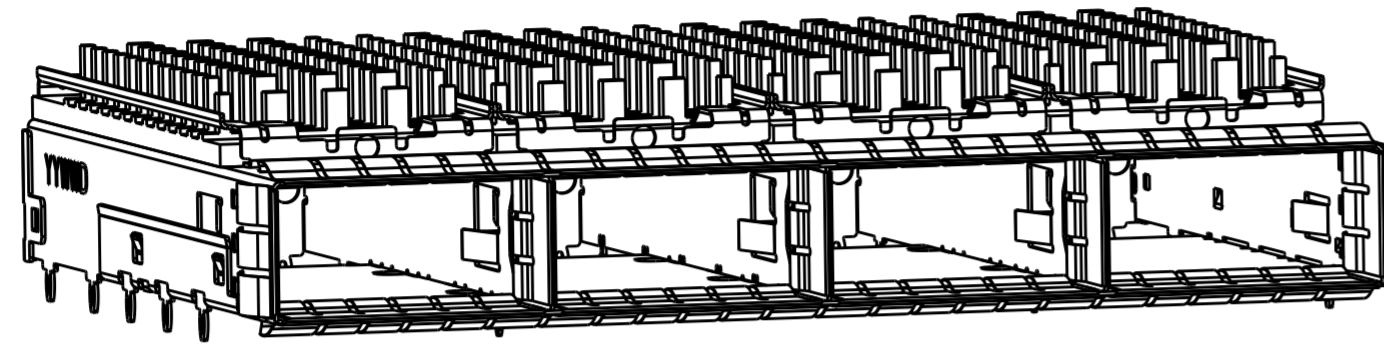


2170790-5, 5-2170790-5  
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 SCALE 2:1

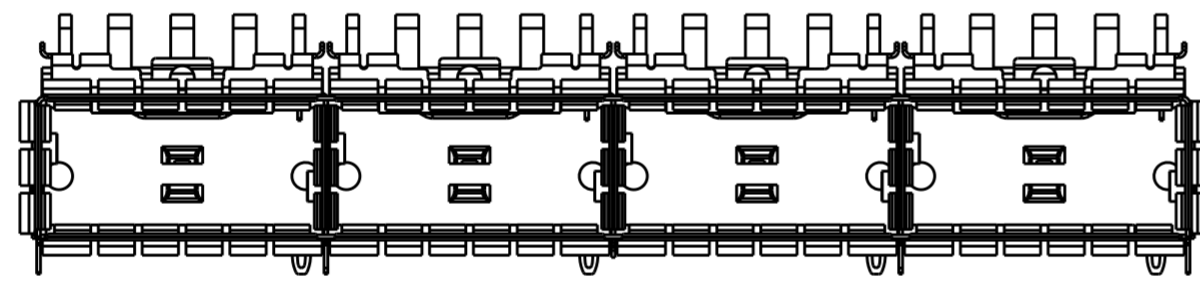
THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN 30 JUN 2014 JASON YANG	<b>STE</b> TE Connectivity	
		CHK 19 FEB 2016 SEAN HAN		
DIMENSIONS:	TOLERANCES UNLESS OTHERWISE SPECIFIED:	APVD -	NAME CAGE ASSEMBLY, QSFP28, 1X4 WITH HEAT SINKS AND LIGHT PIPES, THRU BEZEL, SPRING	
mm	0 PLC ± 1 PLC ±0.25 2 PLC ±0.2 3 PLC ± 4 PLC ± ANGLES ± FINISH	PRODUCT SPEC 108-19428	SIZE A200779	CAGE CODE C-2170790
MATERIAL SEE NOTES	SEE NOTES	APPLICATION SPEC 114-32023	DRAWING NO	RESTRICTED TO
		WEIGHT -	SCALE 3:1	SHEET 5 OF 10
		CUSTOMER DRAWING	REV A	

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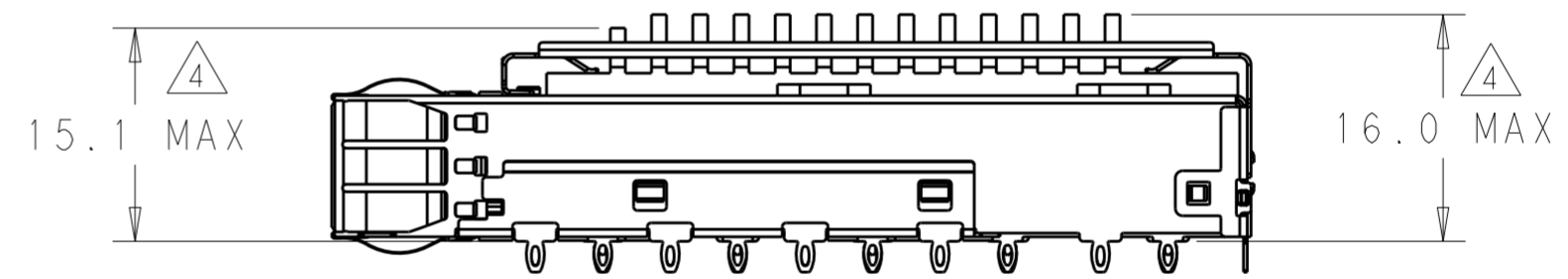
REVISIONS				
P	LTR	DESCRIPTION	DATE	APVD
-		SEE SHEET 1	-	-



2170790-6 AS SHOWN  
 CUSTOMERIZED HEAT SINK  
 NO LIGHT PIPE AND ORGANIZER.  
 SCALE 2:1



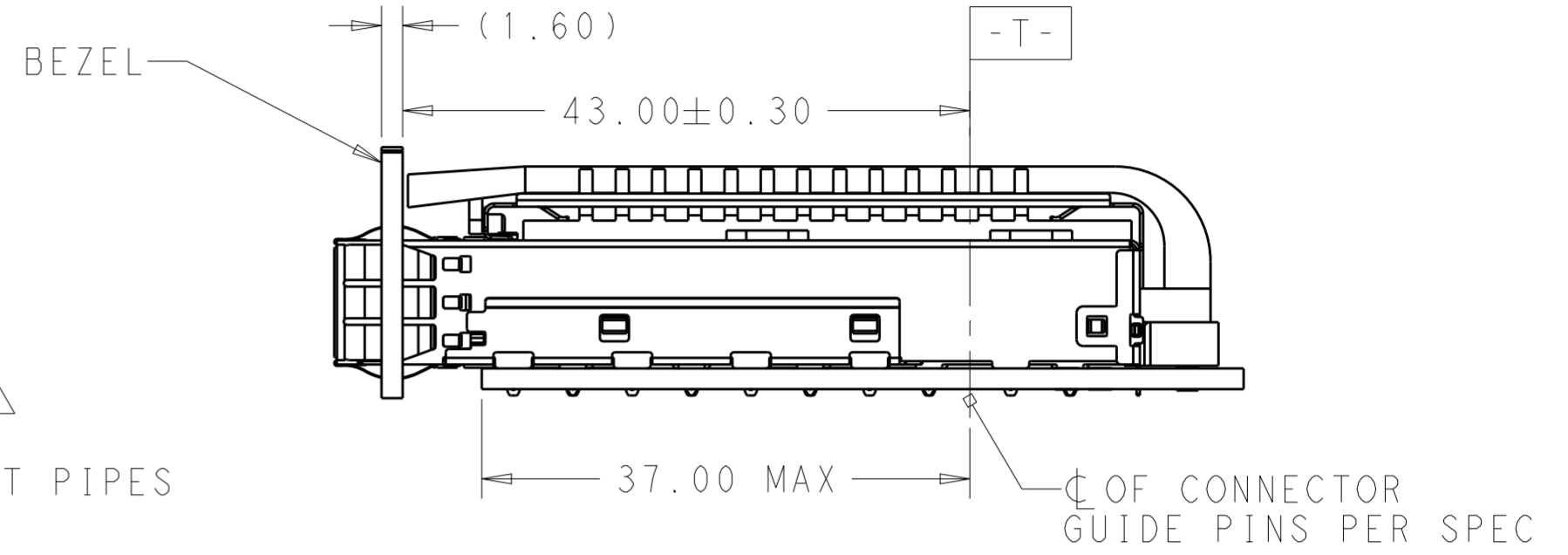
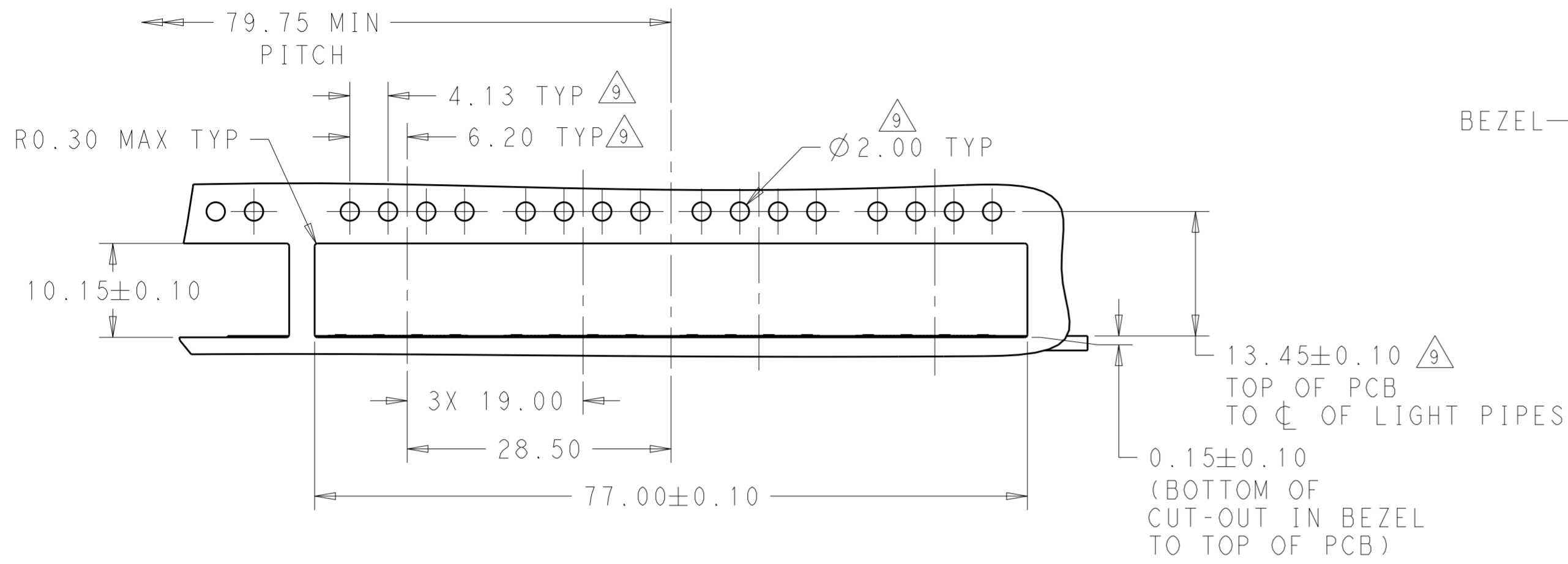
2170790-6  
 UNSPECIFIED DIMENSIONS ARE SAME AS 2170790-3  
 SCALE 2:1



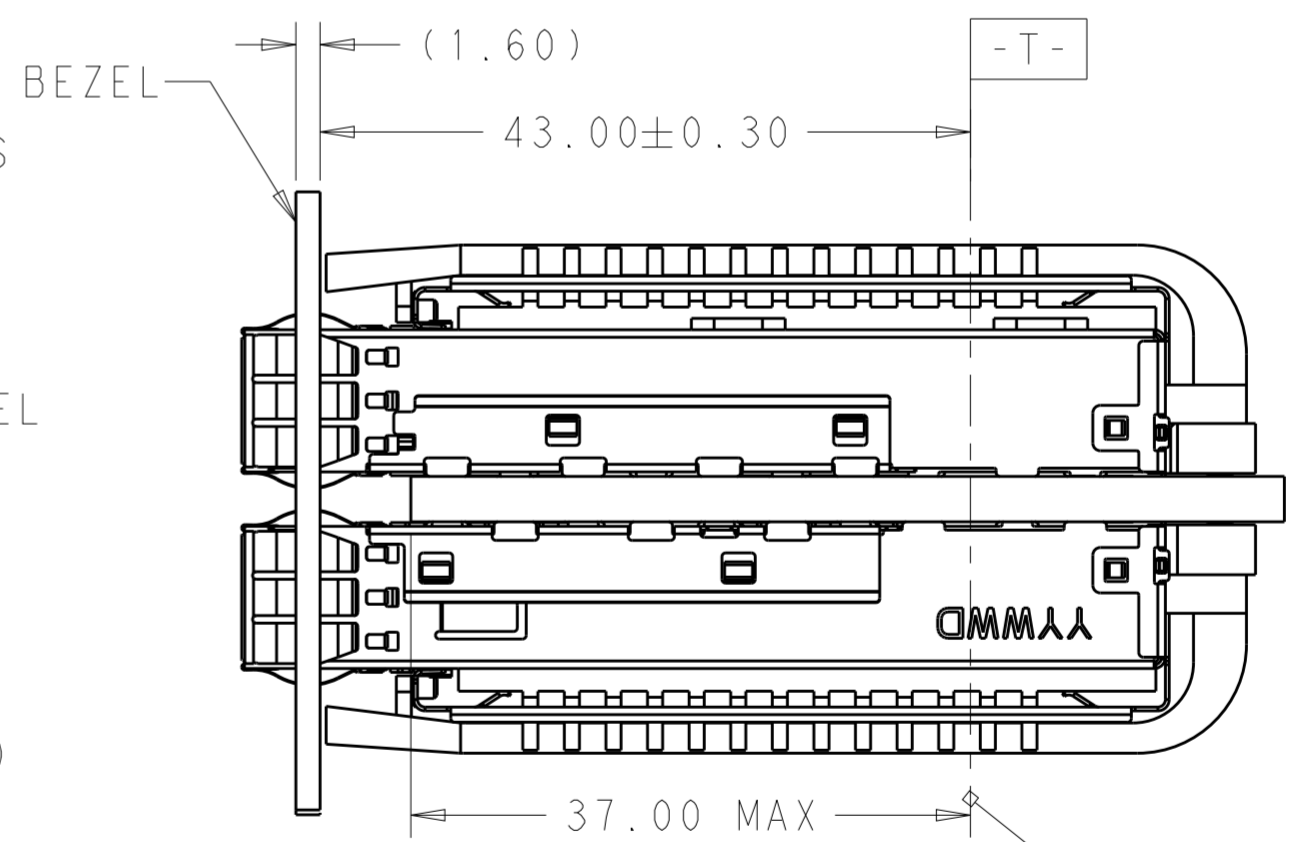
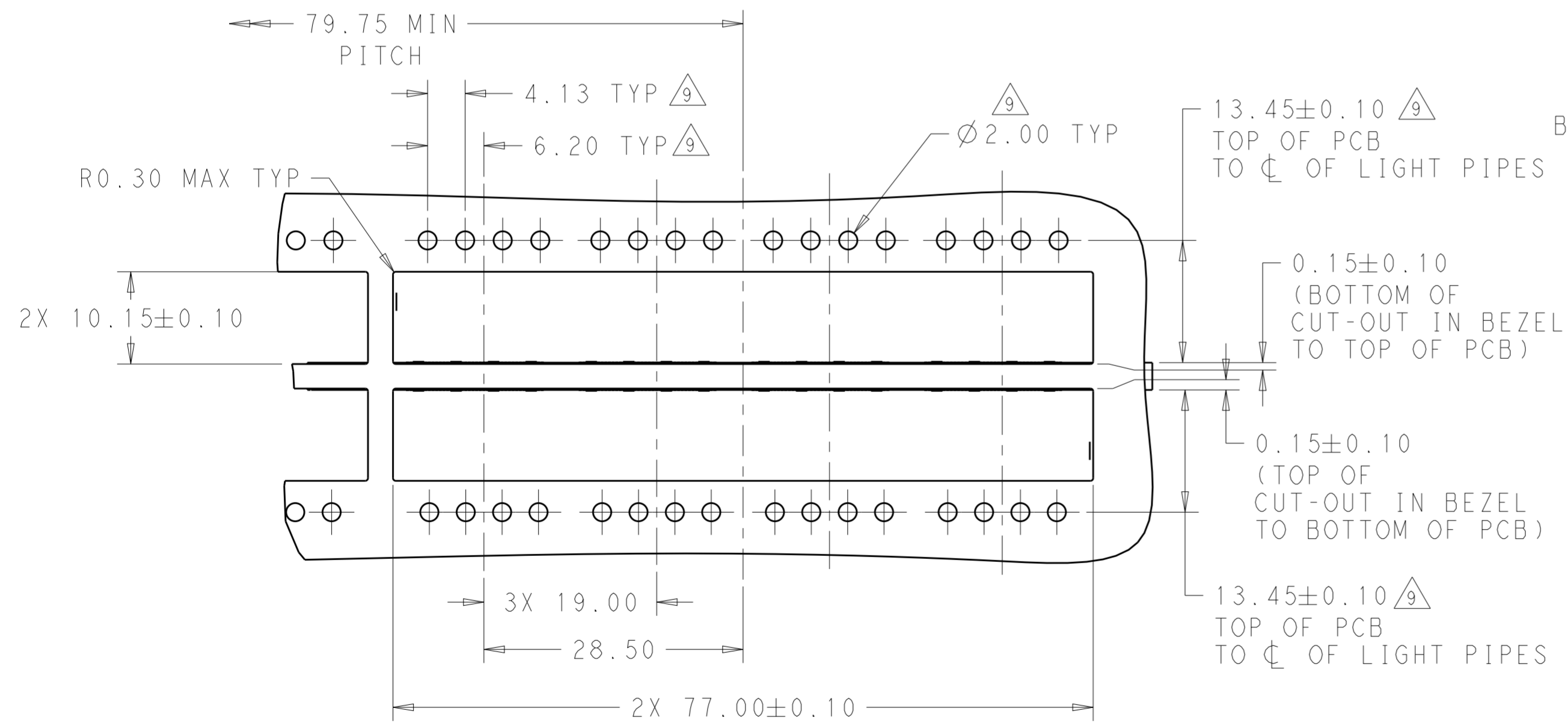
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		CHK 19 FEB 2016 SEAN HAN		
DIMENSIONS:	TOLERANCES UNLESS OTHERWISE SPECIFIED:	APVD -	NAME CAGE ASSEMBLY, QSFP28, 1X4 WITH HEAT SINKS AND LIGHT PIPES, THRU BEZEL, SPRING	
mm	0 PLC ± 1 PLC ±0.25 2 PLC ±0.2 3 PLC ± 4 PLC ±	PRODUCT SPEC 108-19428	SIZE	CAGE CODE
	ANGLES ±	APPLICATION SPEC 114-32023	A200779	C-2170790
MATERIAL SEE NOTES	FINISH SEE NOTES	WEIGHT -	RESTRICTED TO -	
		CUSTOMER DRAWING	SCALE 3:1	SHEET 6 OF 10
			REV A	

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SINGLE SIDE MOUNTING  
SCALE 2:1



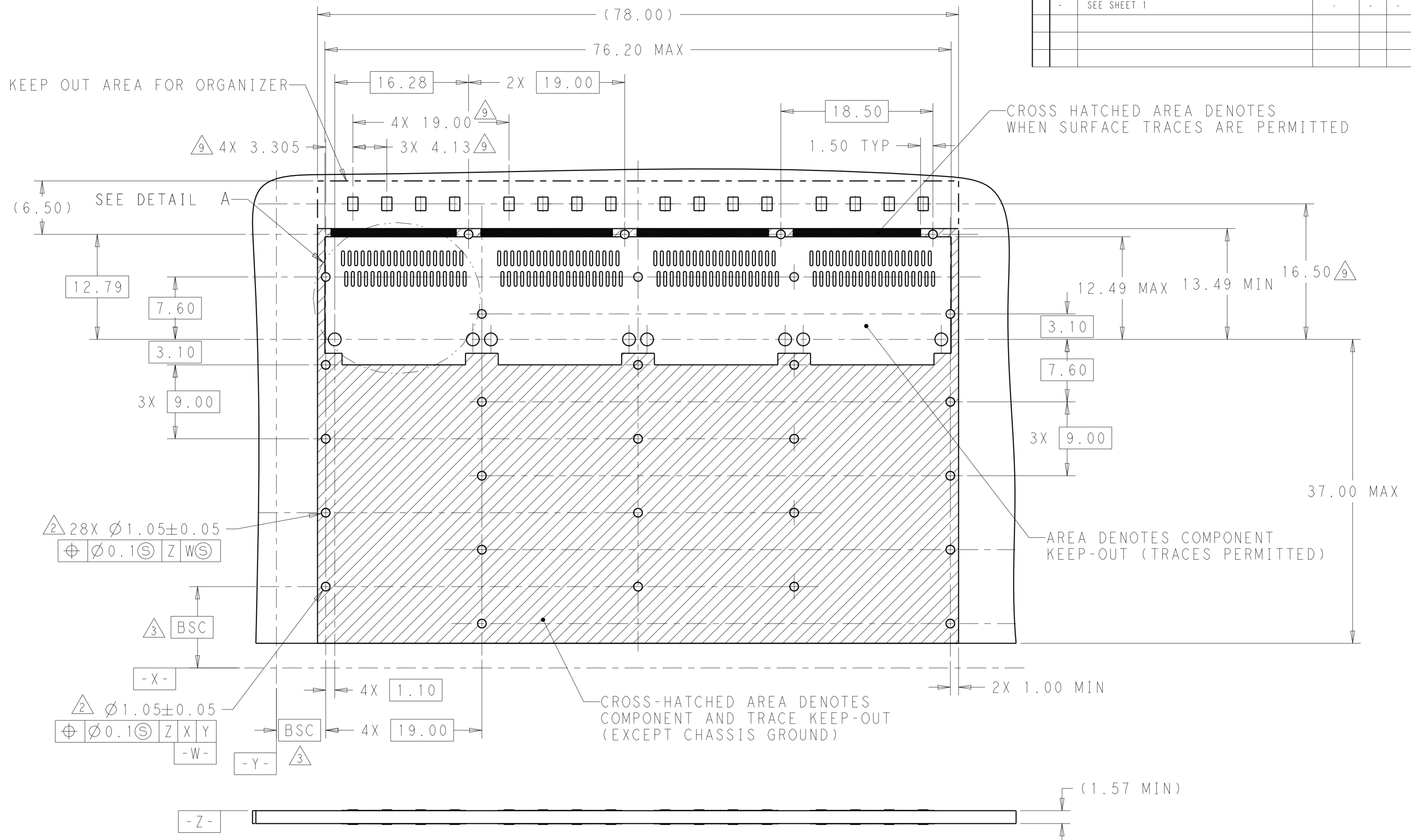
BELLY TO BELLY MOUNTING  
SCALE 2:1

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		CHK SEAN HAN 19 FEB 2016		
DIMENSIONS:	TOLERANCES UNLESS OTHERWISE SPECIFIED:	APVD	NAME	
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	ANGLES ±	APPLICATION SPEC	WITH HEAT SINKS AND LIGHT PIPES,	
MATERIAL	FINISH	WEIGHT	SIZE	RESTRICTED TO
SEE NOTES	SEE NOTES	CUSTOMER DRAWING	A200779	-
			C-2170790	
			SCALE 3:1	SHEET 7 OF 10
				REV A



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-	-	SEE SHEET 1	-	-

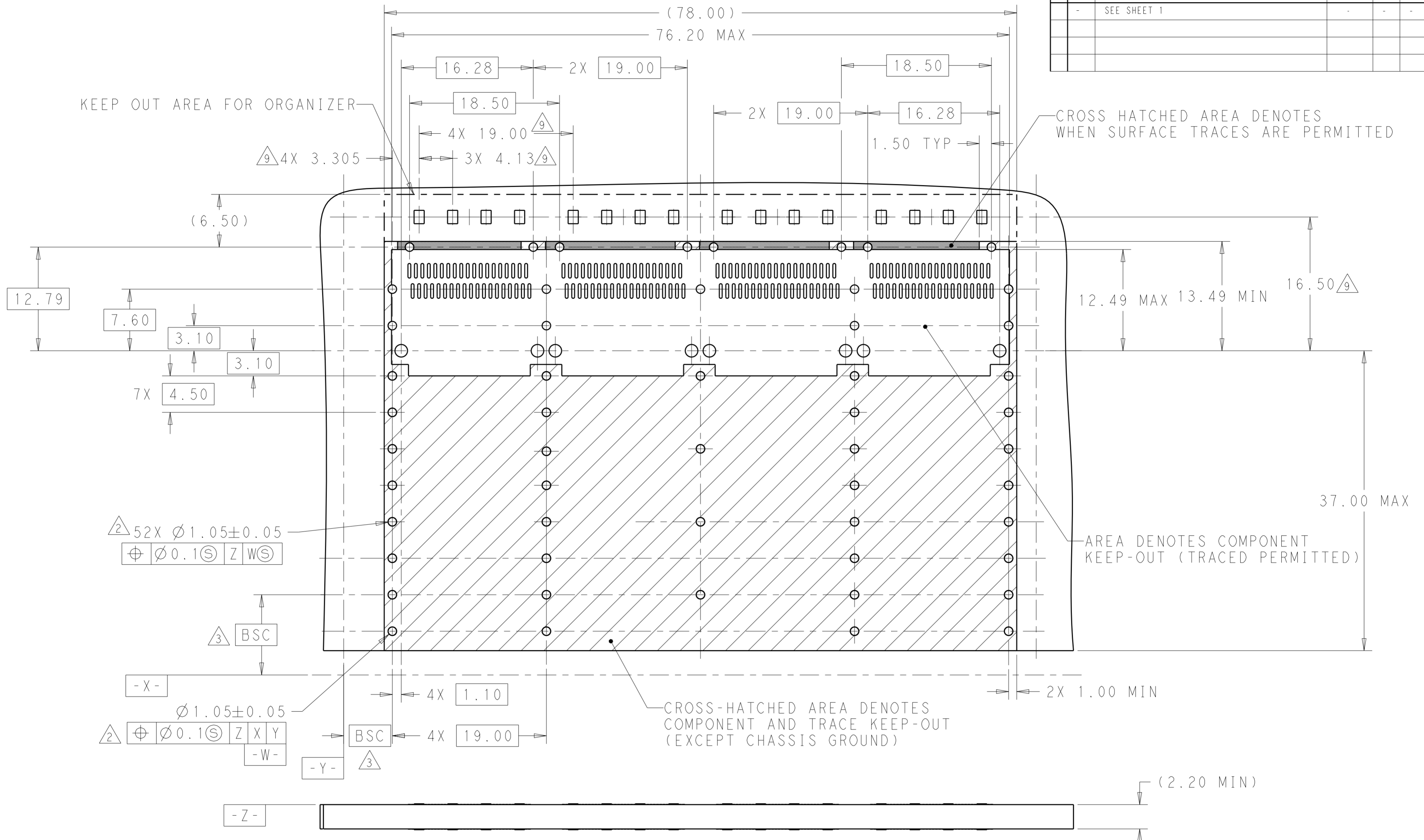


RECOMMENDED PCB LAYOUT  
 SINGLE SIDE MOUNTED CONFIGURATION  
 PCB TOLERANCE: ±0.05  
 SCALE 3:1

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN JASON YANG 30 JUN 2014	TE Connectivity	
		CHK SEAN HAN 19 FEB 2016		
DIMENSIONS: mm		TOLERANCES UNLESS OTHERWISE SPECIFIED:		NAME CAGE ASSEMBLY, QSFP28, 1X4 WITH HEAT SINKS AND LIGHT PIPES, THRU BEZEL, SPRING
		0 PLC ±	1 PLC ±0.25	PRODUCT SPEC 108-19428
MATERIAL SEE NOTES		2 PLC ±0.2	3 PLC ±	APPLICATION SPEC 114-32023
		4 PLC ±	ANGLES ±	WEIGHT -
		FINISH -		SIZE A200779
				CAGE CODE C-2170790
				DRAWING NO -
				RESTRICTED TO -
				SCALE 1:1 SHEET 8 OF 10 REV A
				CUSTOMER DRAWING

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-	-	SEE SHEET 1	-	-

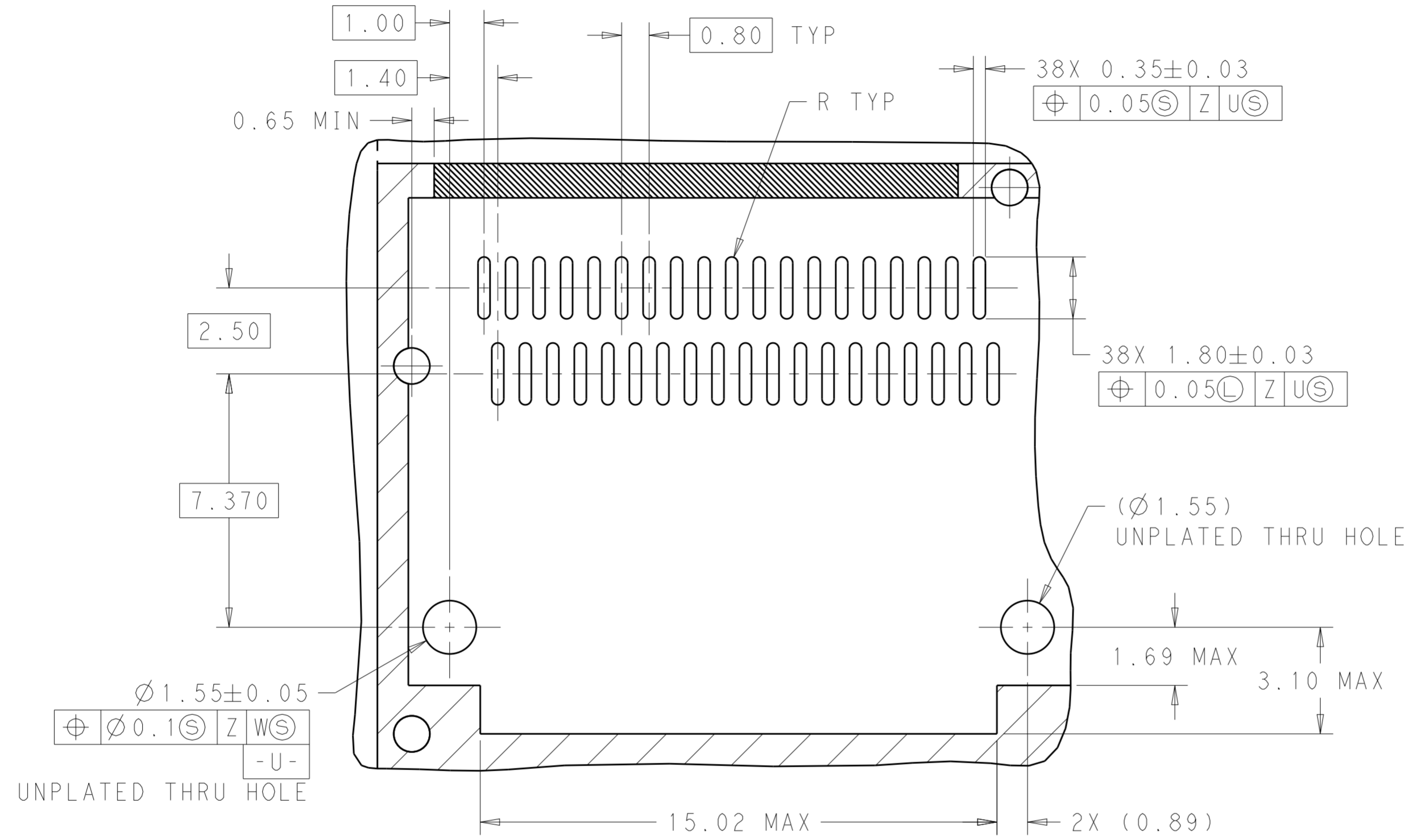


RECOMMENDED PCB LAYOUT  
 BELLY TO BELLY MOUNTED CONFIGURATION  
 PCB TOLERANCE: ±0.05  
 SCALE 3:1

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN JASON YANG 30 JUN 2014	TE Connectivity	
		CHK SEAN HAN 19 FEB 2016		
DIMENSIONS: mm		APVD -		NAME CAGE ASSEMBLY, QSFP28, 1X4 WITH HEAT SINKS AND LIGHT PIPES, THRU BEZEL, SPRING
TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ± 1 PLC ±0.25 2 PLC ±0.2 3 PLC ± 4 PLC ± ANGLES ± FINISH		PRODUCT SPEC 108-19428		SIZE A2
MATERIAL SEE NOTES		APPLICATION SPEC 114-32023		CAGE CODE 00779
		WEIGHT -		DRAWING NO C-2170790
		CUSTOMER DRAWING		RESTRICTED TO -
		SCALE 1:1		SHEET 9 OF 10
				REV A

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DETAIL A  
 RECOMMENDED CONNECTOR LAYOUT  
 (APPLIES TO ALL PCB LAYOUTS)  
 4X INDIVIDUALLY  
 SCALE 8:1

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN 30 JUN 2014 JASON YANG	<b>STE</b> TE Connectivity															
		CHK 19 FEB 2016 SEAN HAN																
DIMENSIONS: mm		TOLERANCES UNLESS OTHERWISE SPECIFIED:		NAME CAGE ASSEMBLY, QSFP28, 1X4 WITH HEAT SINKS AND LIGHT PIPES, THRU BEZEL, SPRING														
<table border="1"> <tr><td>0 PLC</td><td>±</td></tr> <tr><td>1 PLC</td><td>±0.25</td></tr> <tr><td>2 PLC</td><td>±0.2</td></tr> <tr><td>3 PLC</td><td>±</td></tr> <tr><td>4 PLC</td><td>±</td></tr> <tr><td>ANGLES</td><td>±</td></tr> <tr><td>FINISH</td><td>±</td></tr> </table>		0 PLC	±	1 PLC	±0.25	2 PLC	±0.2	3 PLC	±	4 PLC	±	ANGLES	±	FINISH	±	PRODUCT SPEC 108-19428	SIZE 114-32023	RESTRICTED TO -
0 PLC	±																	
1 PLC	±0.25																	
2 PLC	±0.2																	
3 PLC	±																	
4 PLC	±																	
ANGLES	±																	
FINISH	±																	
MATERIAL SEE NOTES		APVD -	APPLICATION SPEC 114-32023	SCALE 1:1														
		WEIGHT -	CUSTOMER DRAWING	SHEET 10 OF 10														
				REV A														