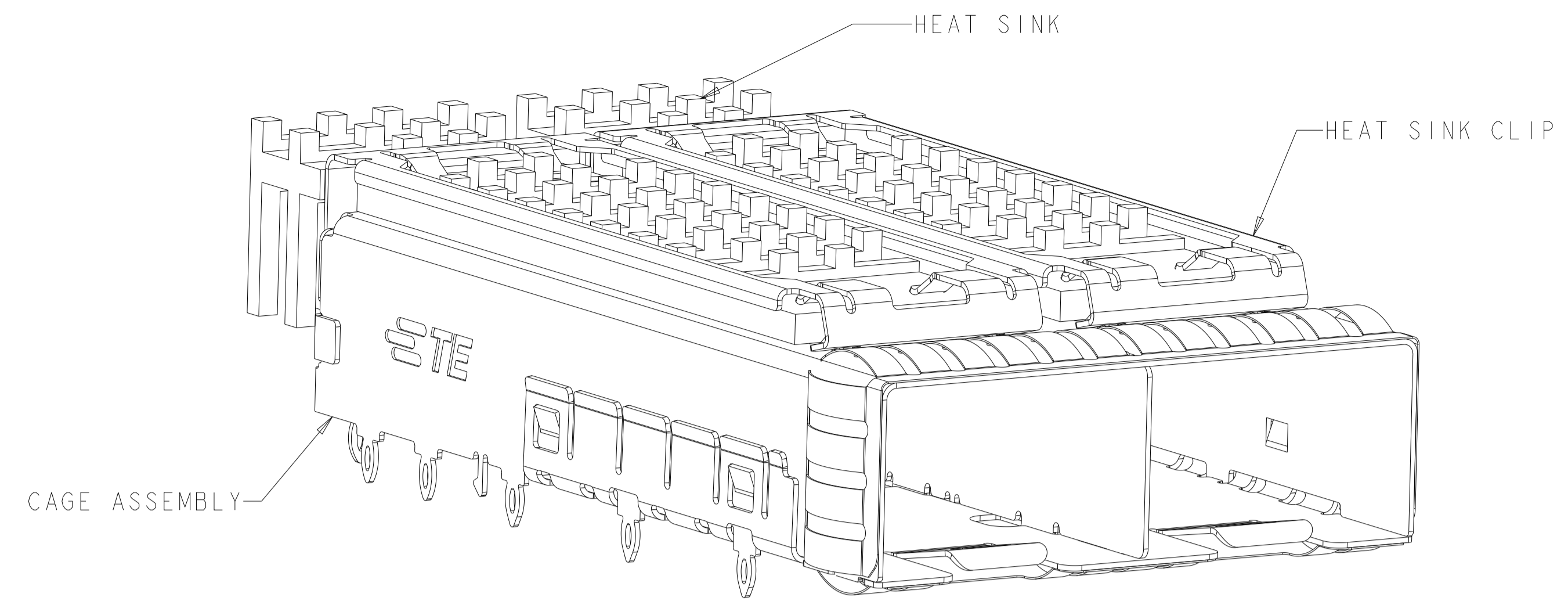
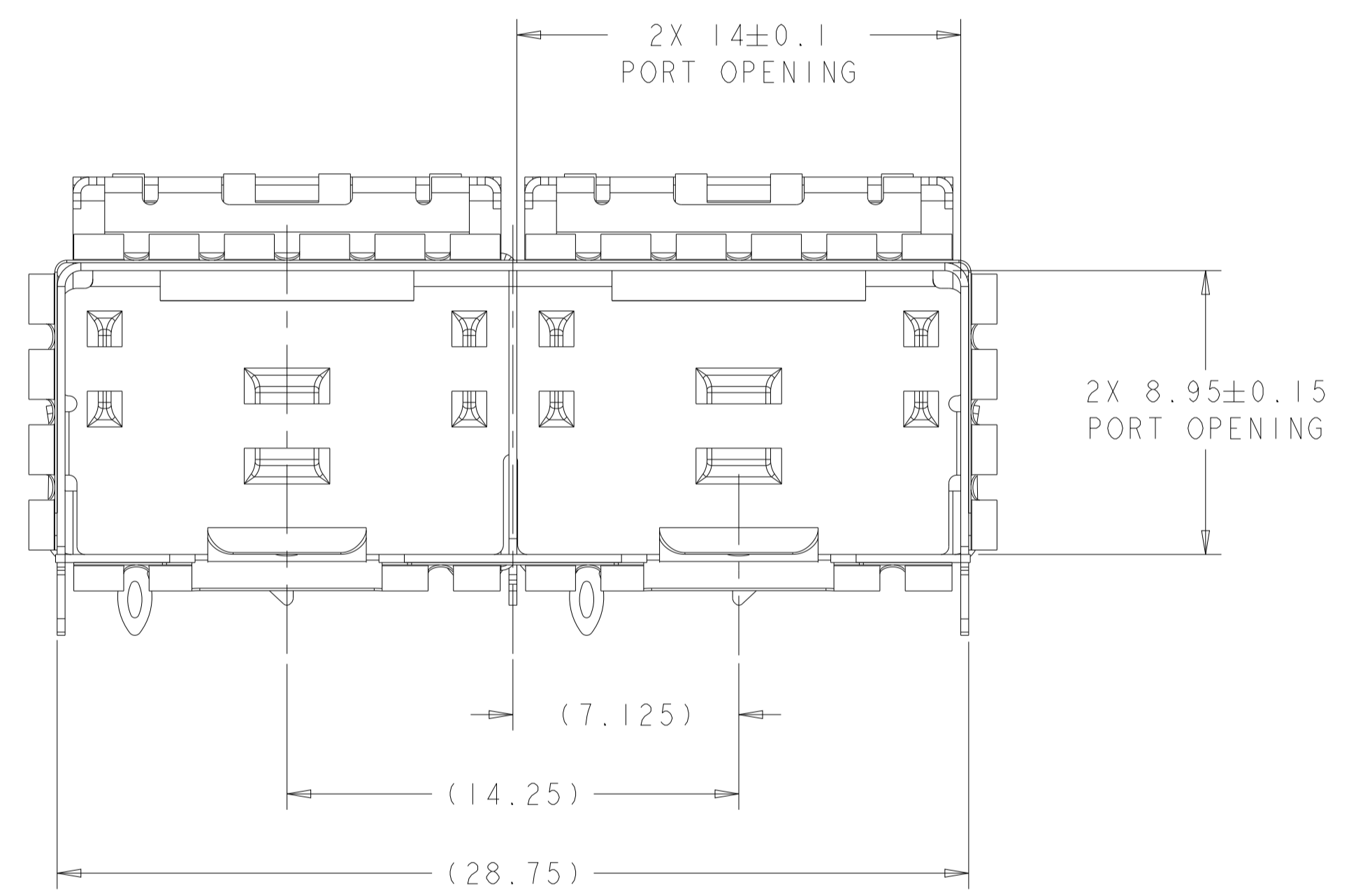


LOC	DIST	REVISIONS					
GP	00	P	LYR	DESCRIPTION	DATE	OWN	APVD
		A3		ADD PART # -5	27MAY2019	IT	SH
		A4		ADD PN 2170190-6	09JAN2020	IT	SH
		A5		ADD NEW DASH NUMBER 1--1	07JUN2021	SZ	SZ
		A6		CHANGE HS PIN NUMBER OF '1--1 PER REQ'	24JUN2021	SZ	SZ

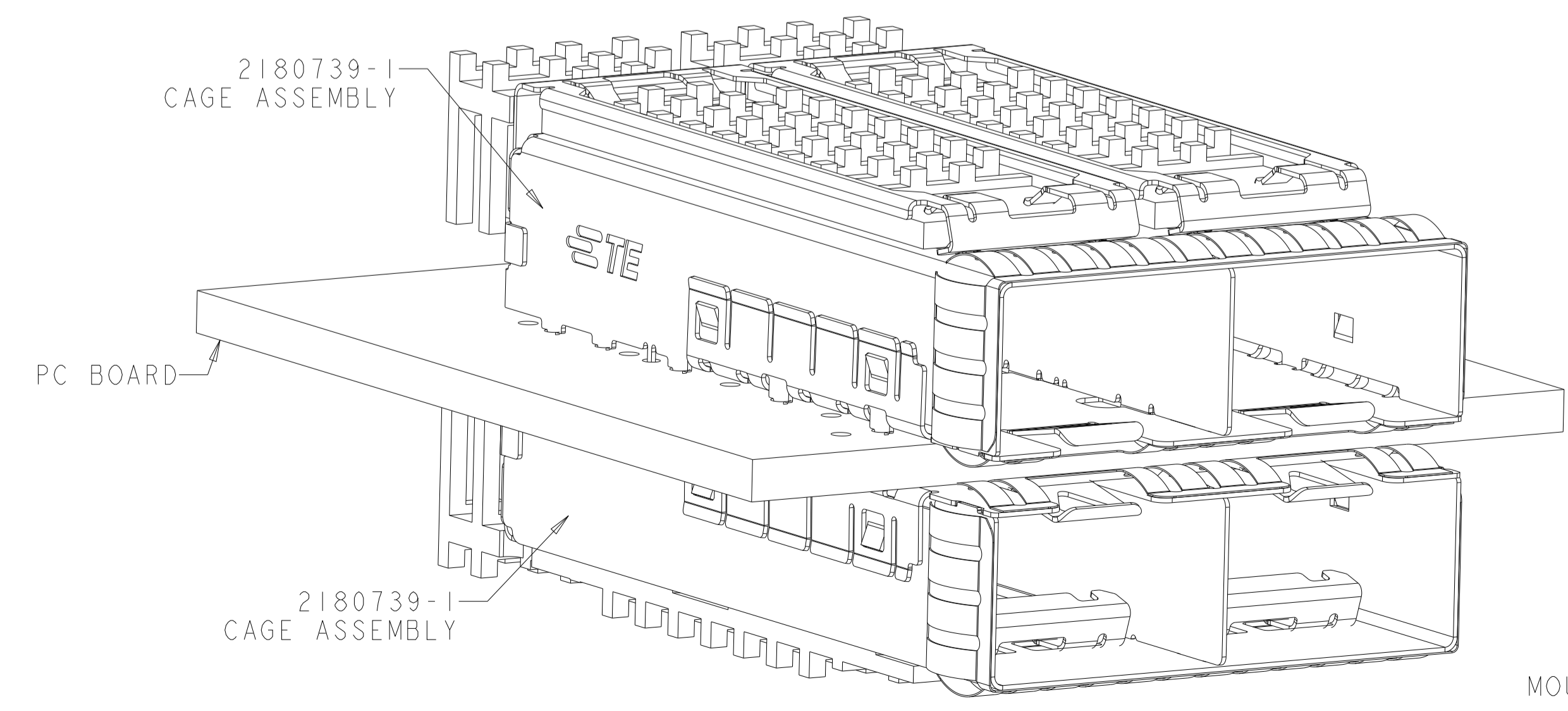
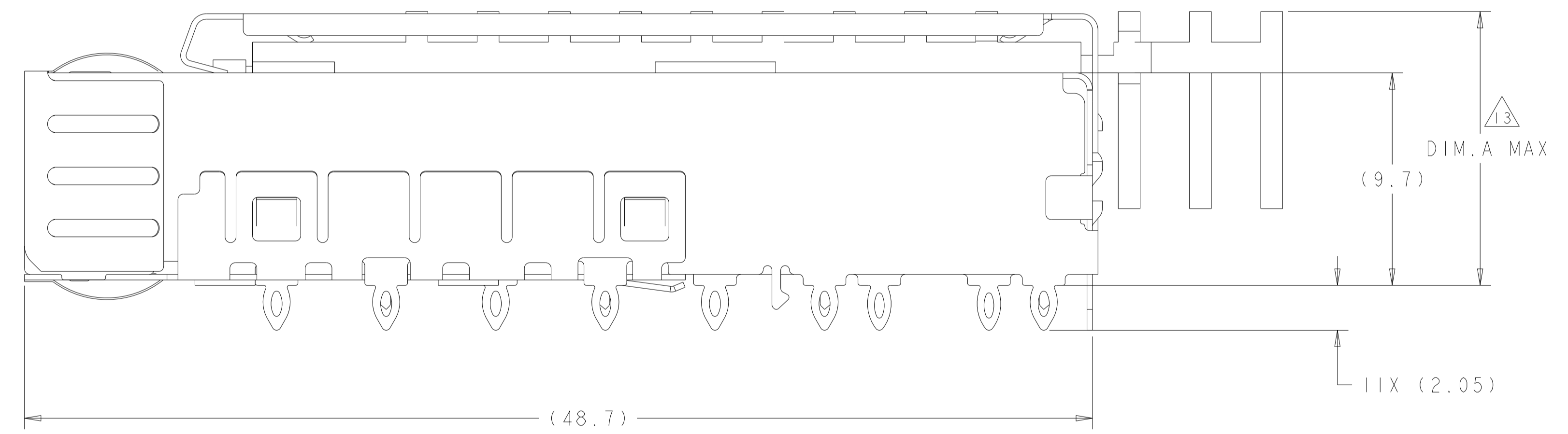


2170190-1  
SCALE 5:1



- 1. MATERIAL:  
 CAGE ASSEMBLY: 0.25mm THICK NICKEL SILVER ALLOY  
 EMI SPRINGS: COPPER ALLOY  
 HEAT SINK: ALUMINUM  
 HEAT SINK CLIP: STAINLESS STEEL.  
 INSULATOR: KAPTON
- 2. FINISH:  
 2170190-1/-2/-4 HEAT SINK: HARD ANODIC COATING  
 2170190-3 HEAT SINK: BLACK ANODIZE  
 2170190-5/-6 HEAT SINK: GRAY ANODIZE  
 HEAT SINK CLIP: PASSIVATE.
- 3. DATUM AND BASIC DIMENSIONS ESTABLISHED BY CUSTOMER.
- 4. PADS AND VIAS CHASSIS GROUND.
- 5. MATES WITH SFP MSA COMPLIANT RECIEVERS.
- 6. INTERPRETATION OF DATUM REFERENCE FRAME IN ACCORDANCE WITH SECT 4.4.1.1 OR ASME Y14.5M-1994.
- 7. MINIMUM PC BOARD THICKNESS:  
 SINGLE SIDED: 1.5mm  
 DOUBLE SIDED: 2.25
- 8. HOLE PATTERN REPEATS FOR EACH PORT, SPACING BETWEEN PORTS IS 14.25mm.
- 9. REFERENCE APPLICATION SPEC. 114-13120, HOLE A, FOR RECOMMENDED DRILL HOLE DIAMETER AND PLATING THICKNESS.
- 10. REFERENCE APPLICATION SPEC. 114-13120, HOLE B, FOR RECOMMENDED DRILL HOLE DIAMETER AND PLATING THICKNESS.
- 11. CERTAIN MATING TRANCEIVERS MAY REQUIRE ADDITIONAL PCB THICKNESS THAT WOULD NEED TO BE DETERMINED BY THE CUSTOMER.

- 12. PRODUCT COMPLIES WITH SPECIFICATION SFF-8433 IMPROVED PLUGGABLE FORM FACTOR FOR SFP+ GANGED CAGES.
- 13. DIMENSION APPLIES PRIOR TO INSERTION OF SFP MODULE.
- 14. PRELIMINARY PART, NO RELEASED TO MASS PRODUCTION



2170190-1  
MOUNTED BELLY TO BELLY  
SCALE 4:1

PIN TYPE	HEAT SINK W/O THE FRIST ROW PIN	1-2170190-1
PIN TYPE	HEAT SINK W/ THE FRIST ROW PIN	2170190-6
PIN TYPE	HEAT SINK W/ THE FRIST ROW PIN	2170190-5
PIN TYPE	HEAT SINK W/ THE FRIST ROW PIN	2170190-4
FIN TYPE	HEAT SINK W/ THE FRIST ROW PIN	2170190-3
PIN TYPE	HEAT SINK W/ THE FIRST ROW PIN	2170190-2
PIN TYPE	HEAT SINK W/O THE FIRST ROW PIN	2170190-1
HEAT SINK	DESCRIPTION	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT. OWN: TIM XUE 21NOV2011  
 CHK: ALEX CAI 21NOV2011  
 APVD: ALEX CAI 21NOV2011

**STE** TE Connectivity

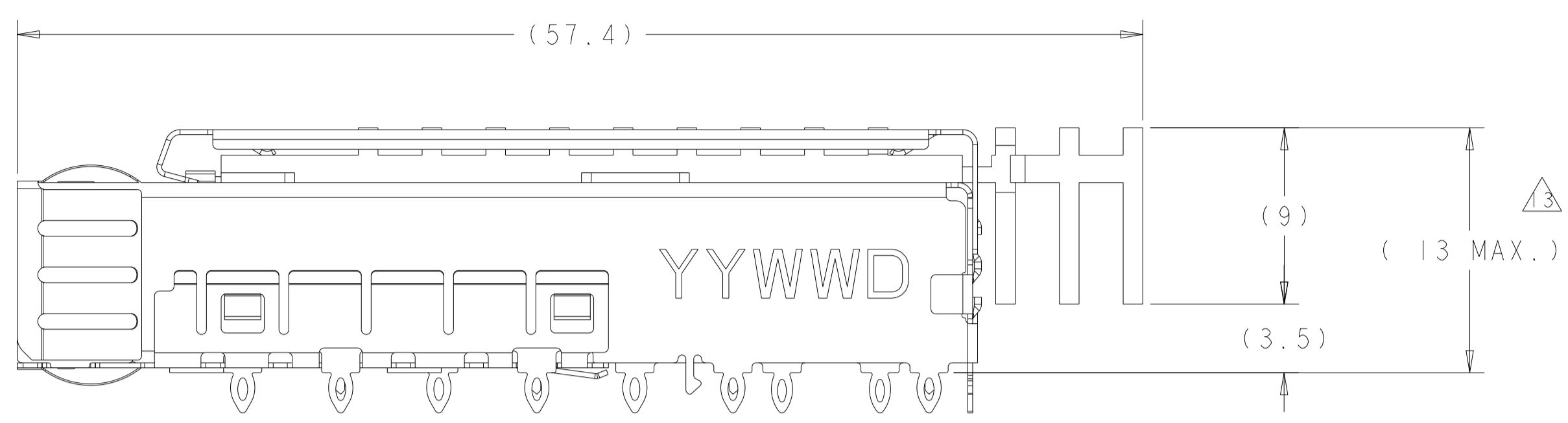
NAME: SFP+ ENHANCED 1X2 CAGE ASSEMBLY, PRESS-FIT, EMI SPRINGS, HEAT SINK  
 PRODUCT SPEC: 108-2364  
 APPLICATION SPEC: 114-13120

SIZE: CAGE CODE DRAWING NO: A100779C=2170190  
 RESTRICTED TO: -

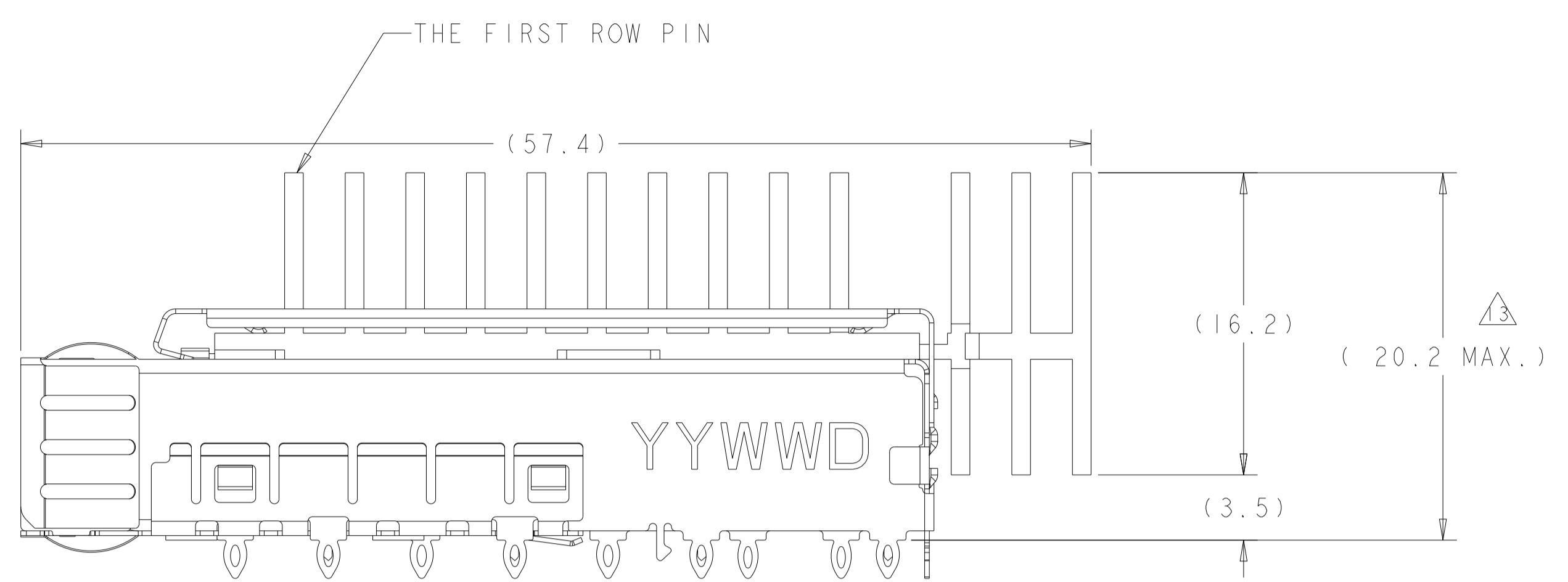
MATERIAL: FINISH:

CUSTOMER DRAWING SCALE: 6:1 SHEET 1 OF 6 REV: A6

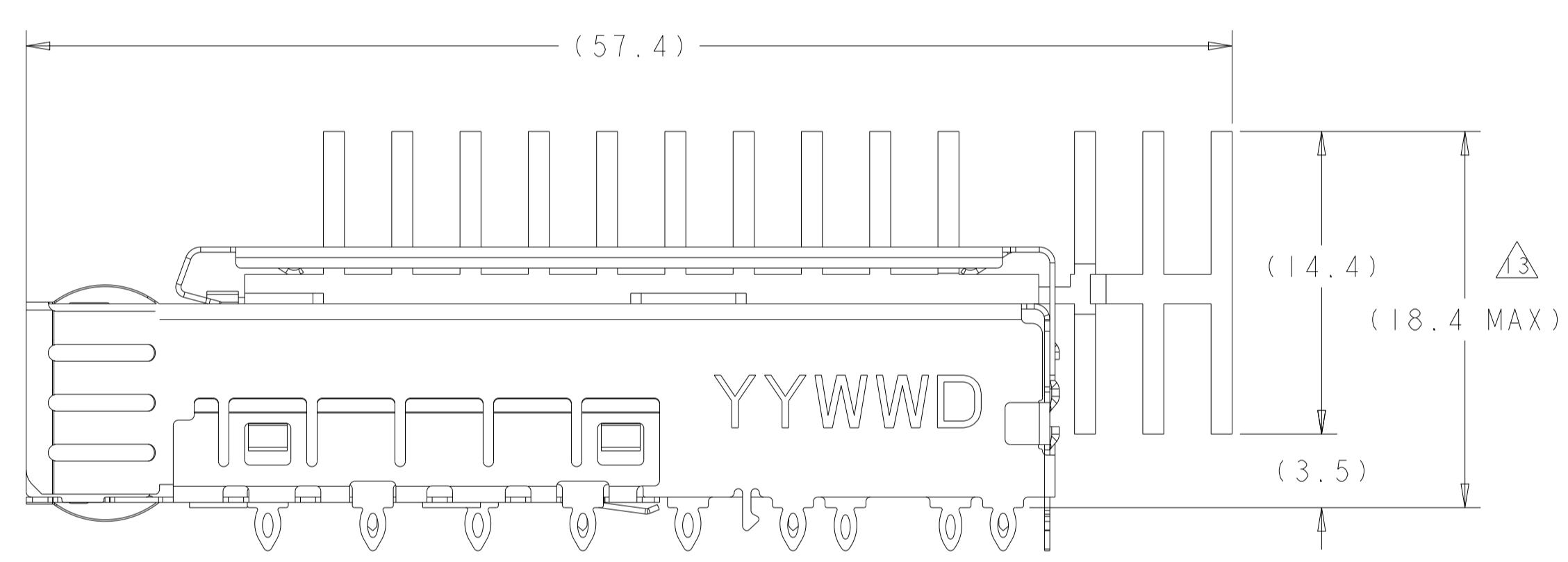
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GP	00	P	LYR	DESCRIPTION	DATE	OWN	APVD
-	-	-	-	SEE SHEET 1	-	-	-



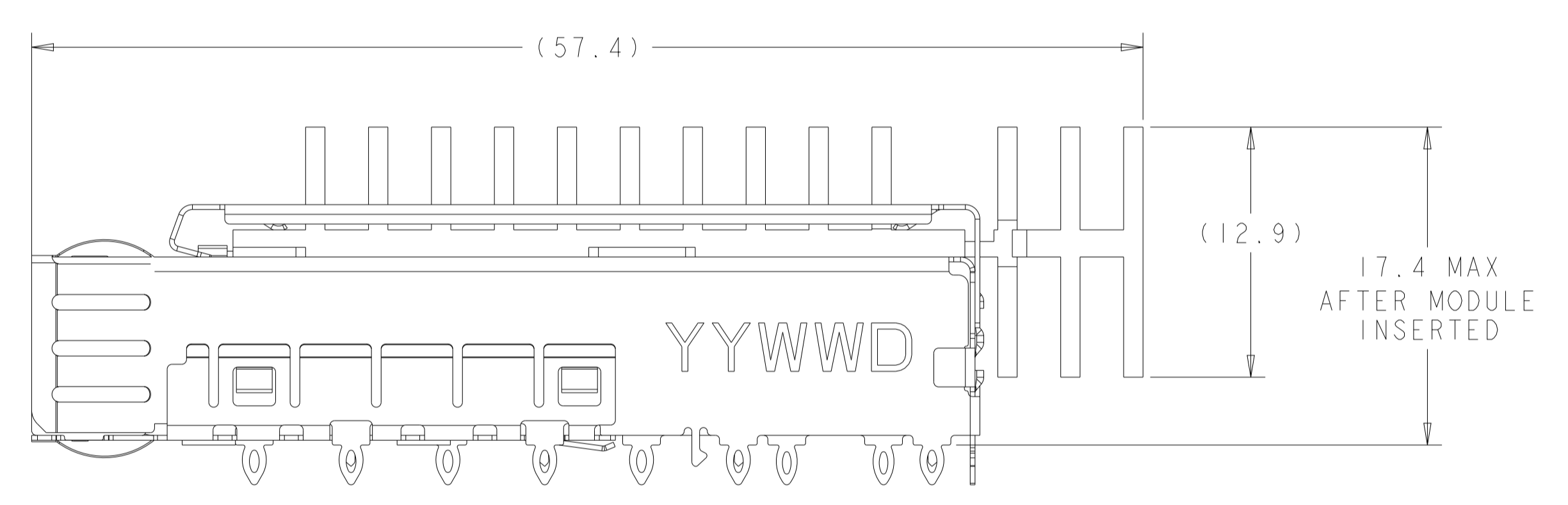
2170190-1 AS SHOWN  
HEAT SINK W/O THE FIRST ROW PIN



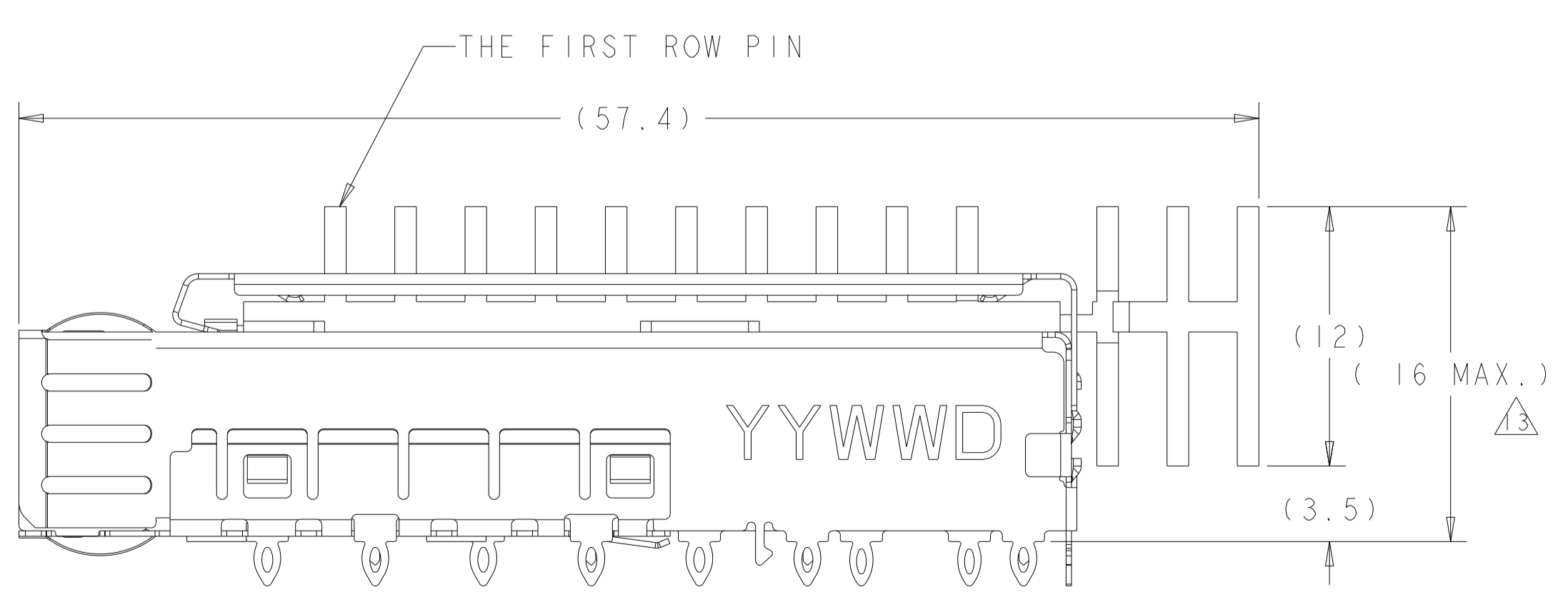
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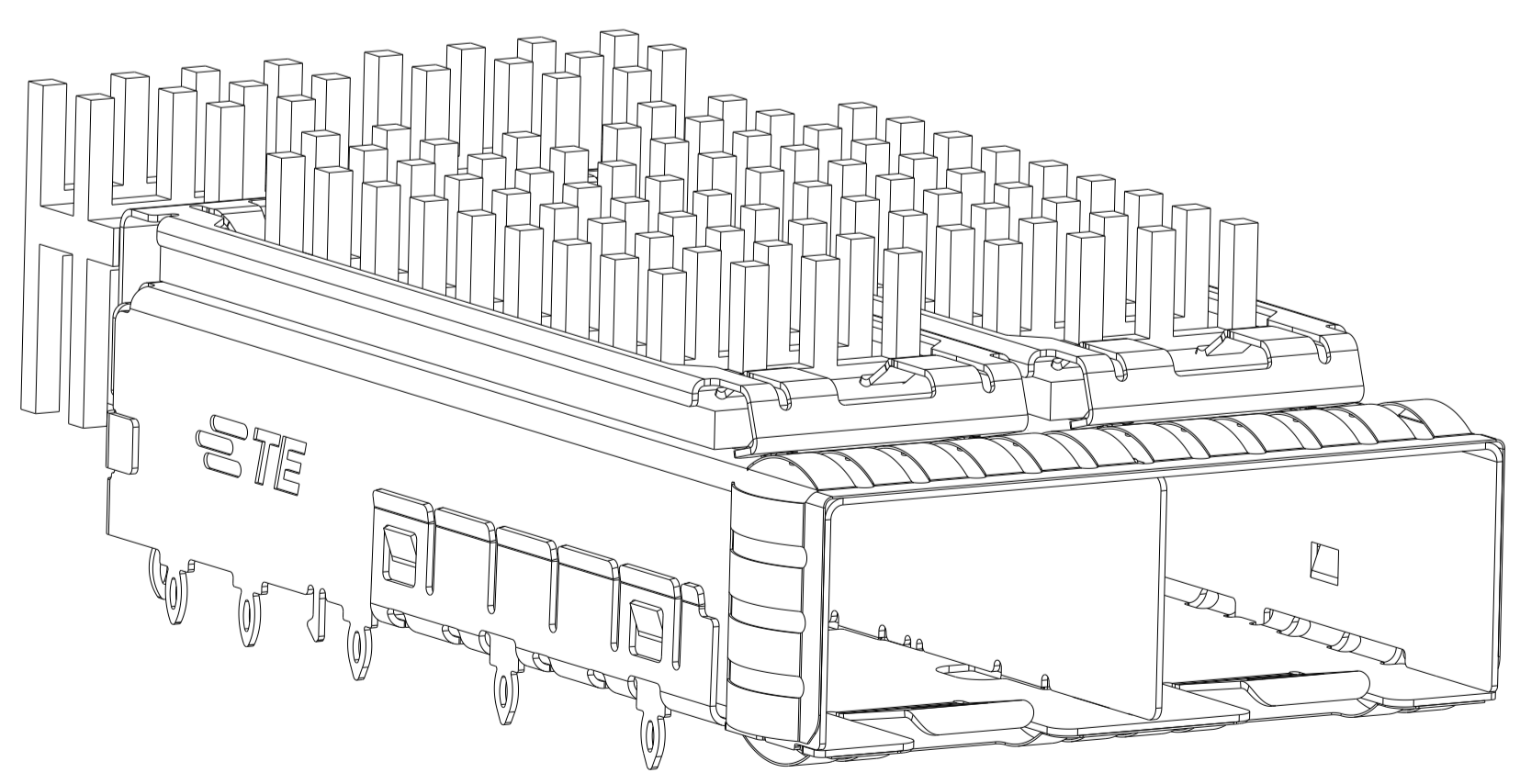
2170190-5 AS SHOWN  
SCALE 4:1



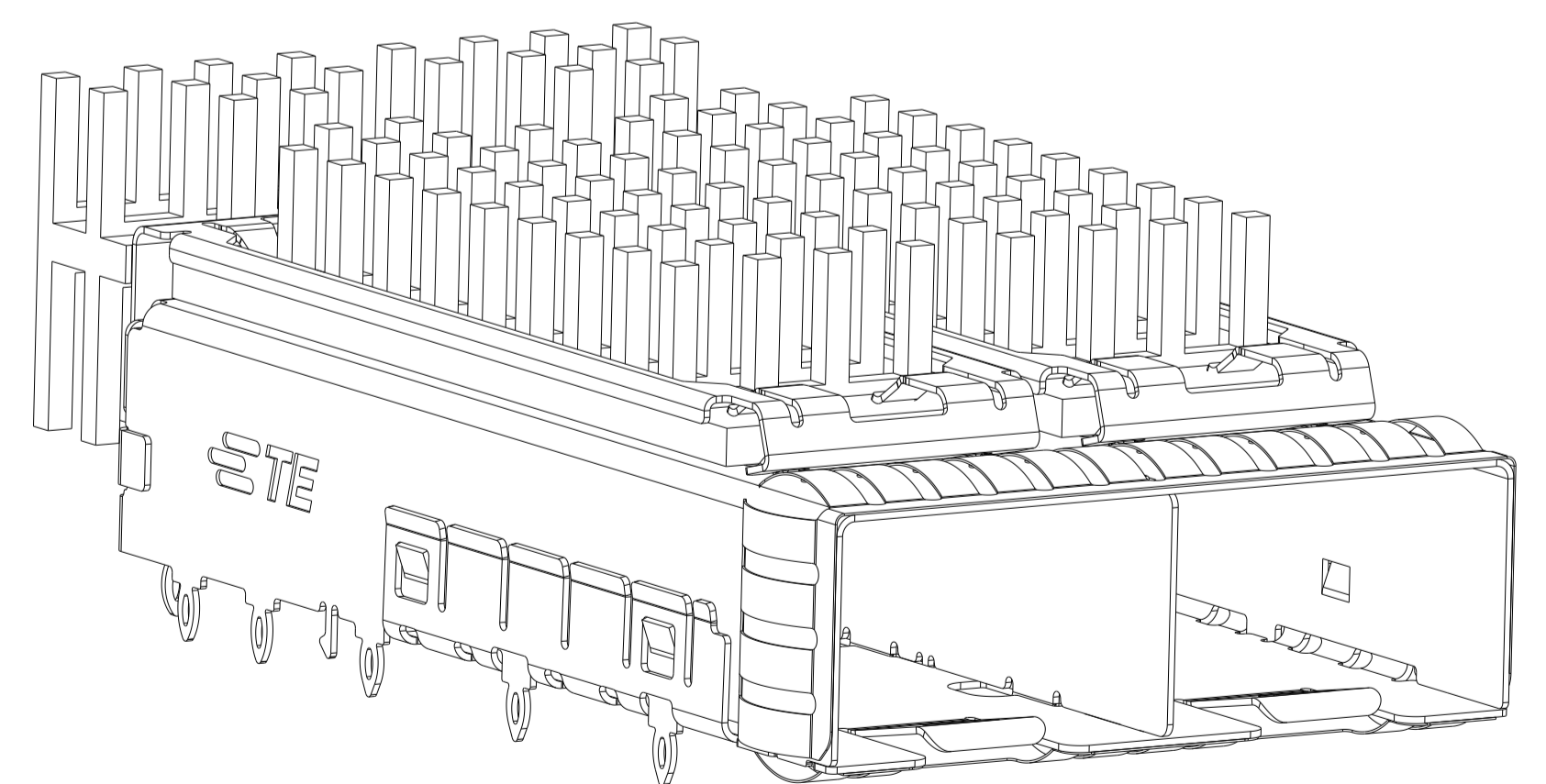
2170190-6 AS SHOWN  
SCALE 4:1



1-2170190-1 AS SHOWN  
SCALE 4:1



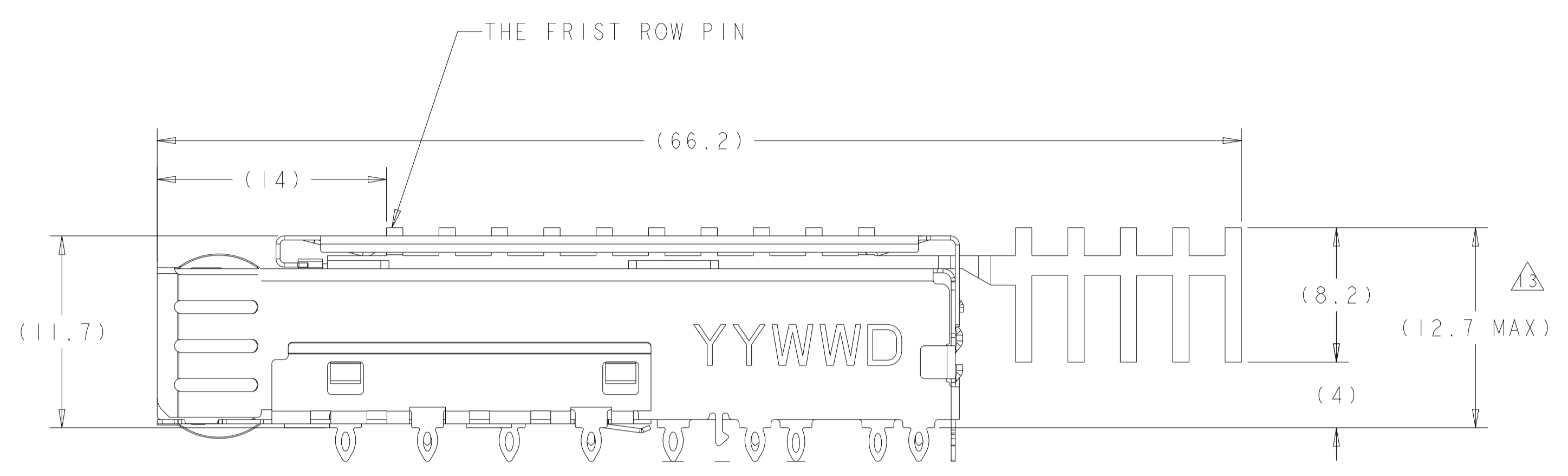
1-2170190-1 AS SHOWN



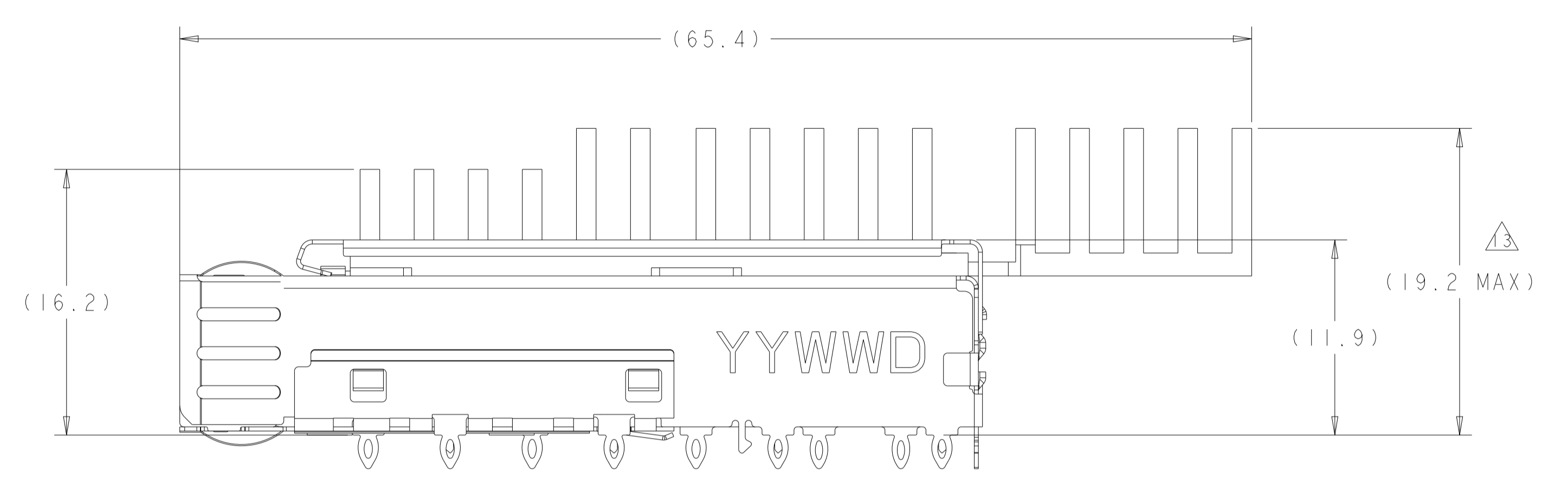
2170190-2, 5, 6 WITH PIN TYPE HEATSINK  
SCALE 4:1

THIS DRAWING IS A CONTROLLED DOCUMENT.		OWN: TIM XUE 21NOV2011	TE Connectivity
DIMENSIONS:		CHK: ALEX CAI 21NOV2011	
mm	TOLERANCES UNLESS OTHERWISE SPECIFIED:	APVD: ALEX CAI 21NOV2011	NAME: SFP+ ENHANCED 1X2 CAGE ASSEMBLY, PRESS-FIT, EMI SPRINGS, HEAT SINK
0 PLC	±0.13	PRODUCT SPEC	108-2364
1 PLC	±0.1	APPLICATION SPEC	114-13120
2 PLC	±0.08	SIZE	A100779
3 PLC	±0.05	CAGE CODE	C=2170190
4 PLC	±0.05	DRAWING NO	SCALE 6:1
ANGLES	±1	WEIGHT	SHEET 2 OF 6
FINISH		CUSTOMER DRAWING	REV A6

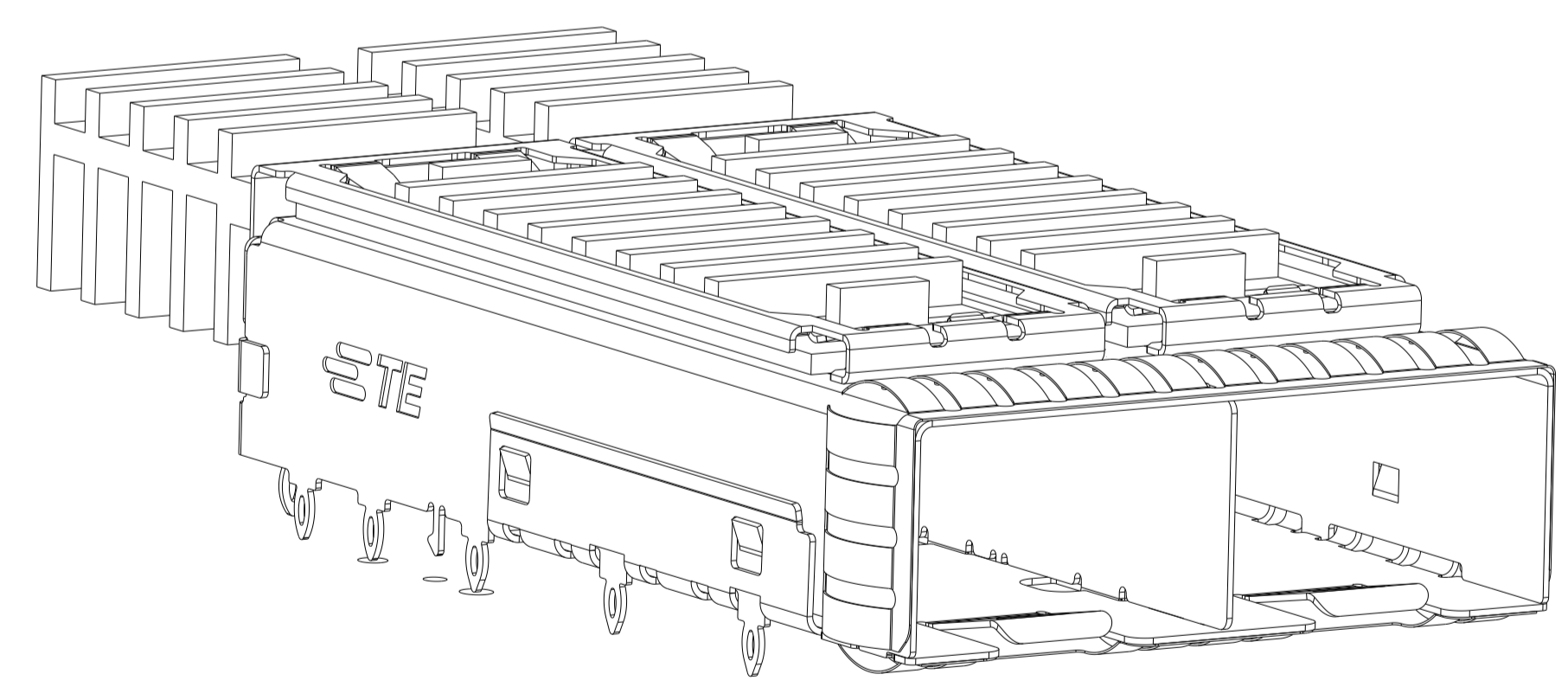
LOC		DIST		REVISIONS			
GP	00	P	LYR	DESCRIPTION	DATE	OWN	APVD
-	-	-	-	SEE SHEET 1	-	-	-



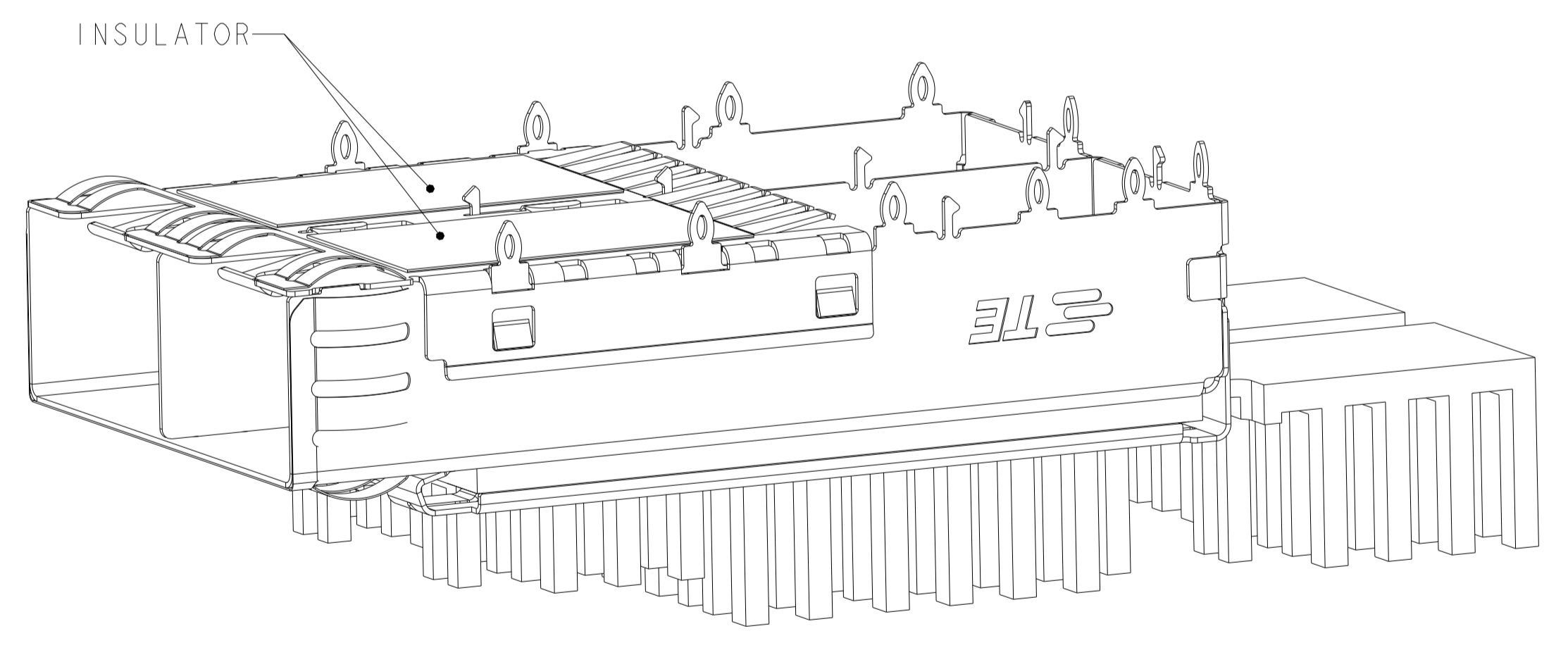
2170190-3 AS SHOWN



2170190-4 AS SHOWN  
SCALE 4:1



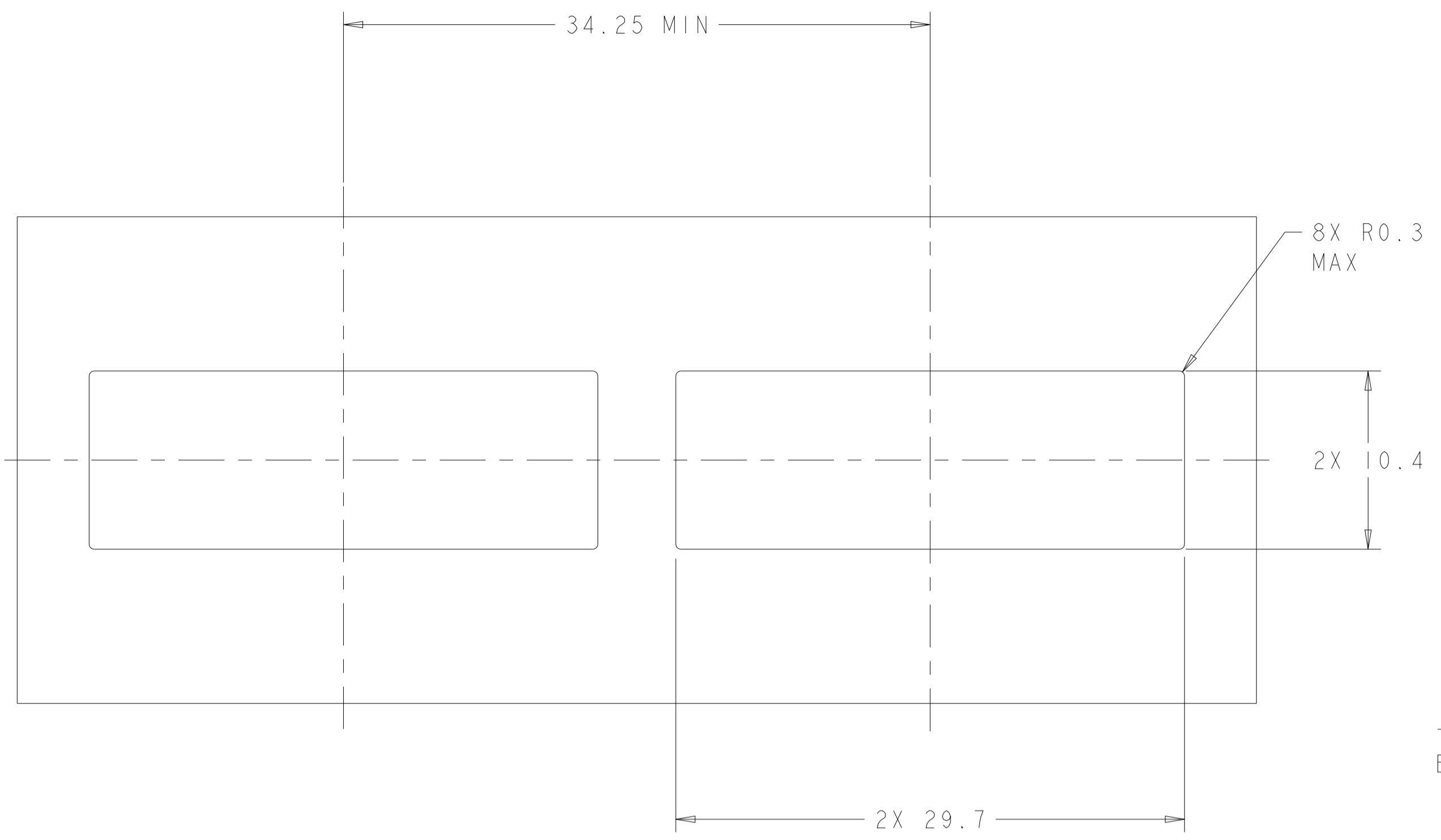
2170190-3 FIN TYPE HEATSINK  
3D VIEW



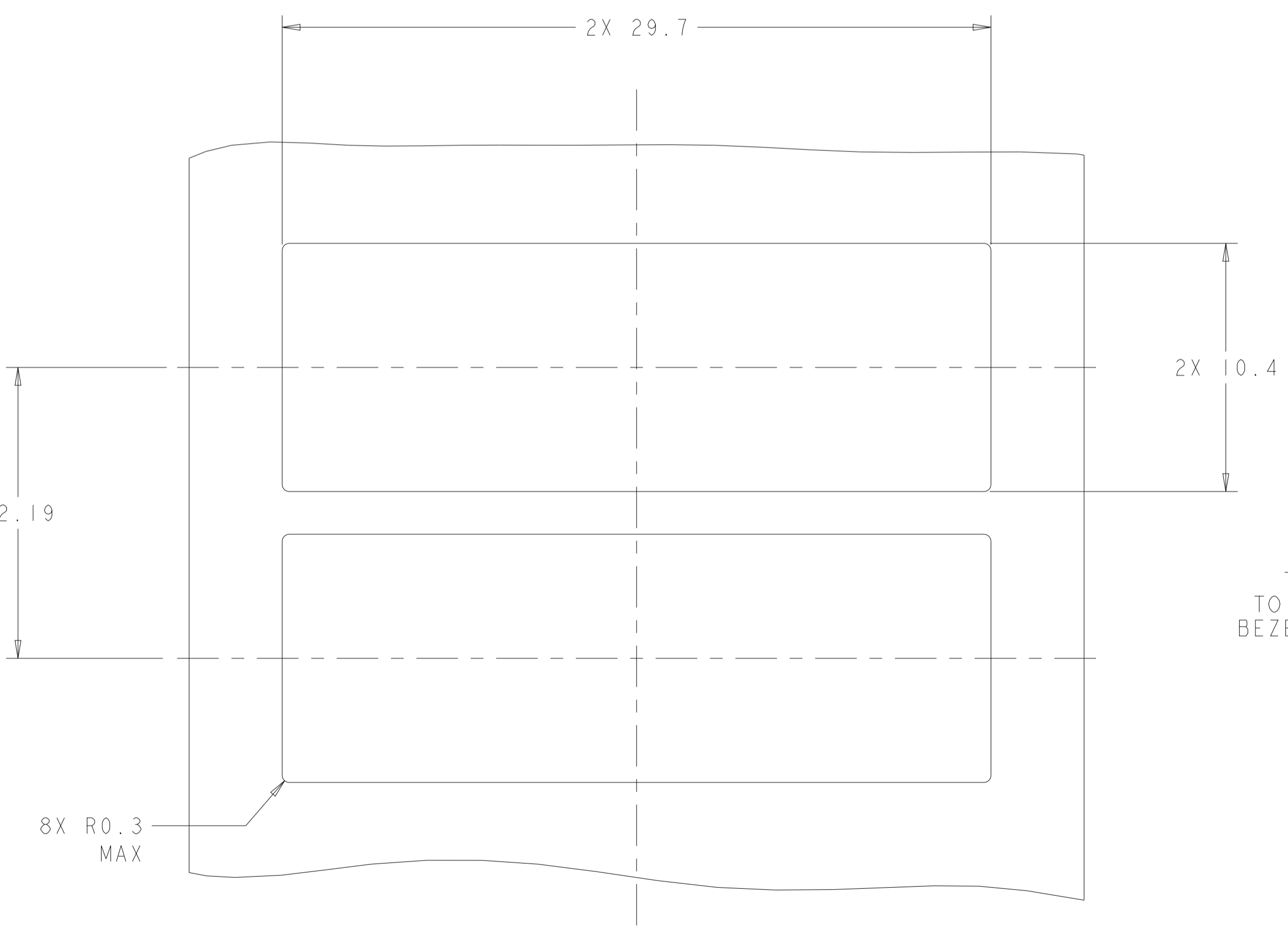
2170190-4 WITH PIN TYPE HEATSINK AND INSULATOR  
3D VIEW

THIS DRAWING IS A CONTROLLED DOCUMENT.		OWN	TIM XUE	21NOV2011	TE Connectivity NAME SFP+ ENHANCED 1X2 CAGE ASSEMBLY, PRESS-FIT, EMI SPRINGS, HEAT SINK
DIMENSIONS:		CHK	ALEX CAI	21NOV2011	
mm		APVD	ALEX CAI	21NOV2011	
0 PLC ±0.13 1 PLC ±0.1 2 PLC ±0.08 3 PLC ±0.05 4 PLC ±0.05 ANGLES ±1 FINISH		PRODUCT SPEC	108-2364	APPLICATION SPEC	
MATERIAL		SIZE	114-13120	CAGE CODE	114-13120
		WEIGHT	-	DRAWING NO	2170190
		CUSTOMER DRAWING		SCALE	6:1
				SHEET	3 OF 6
				REV	A6

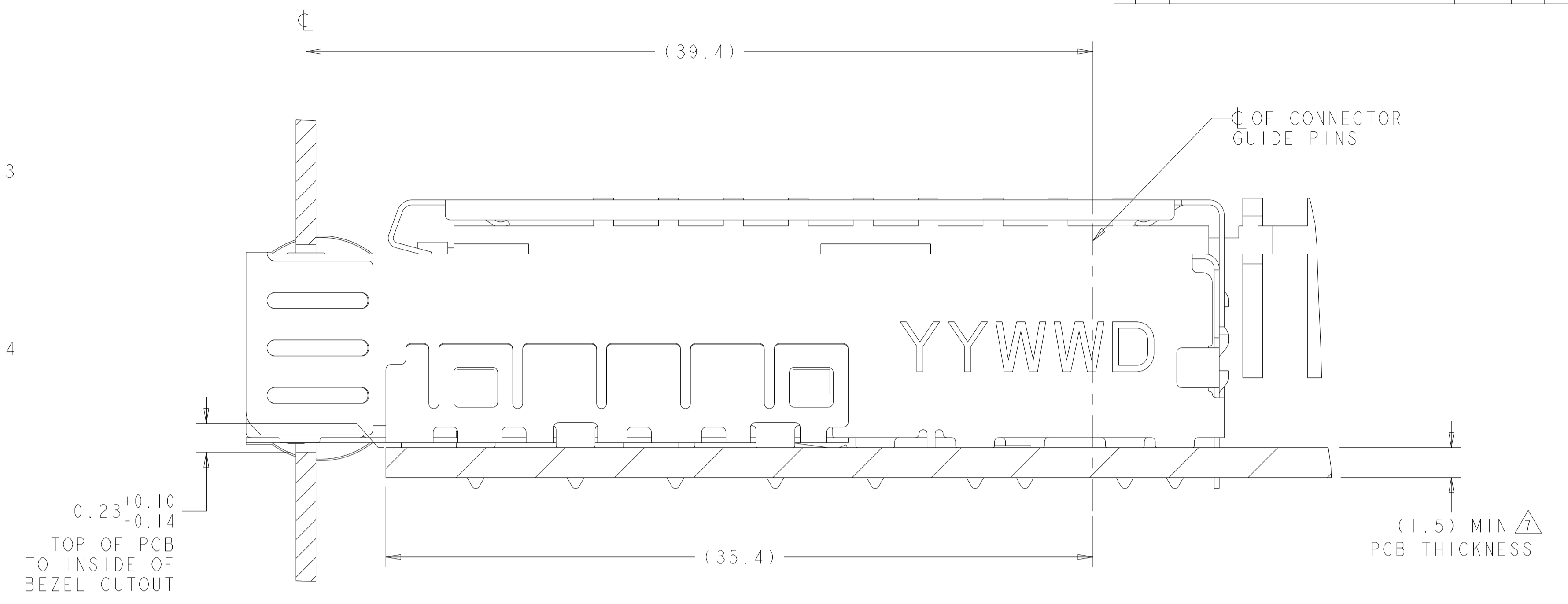
LOC		DIST		REVISIONS			
GP	00	P	LTN	DESCRIPTION	DATE	DMN	APVD
-	-	-	-	SEE SHEET 1	-	-	-



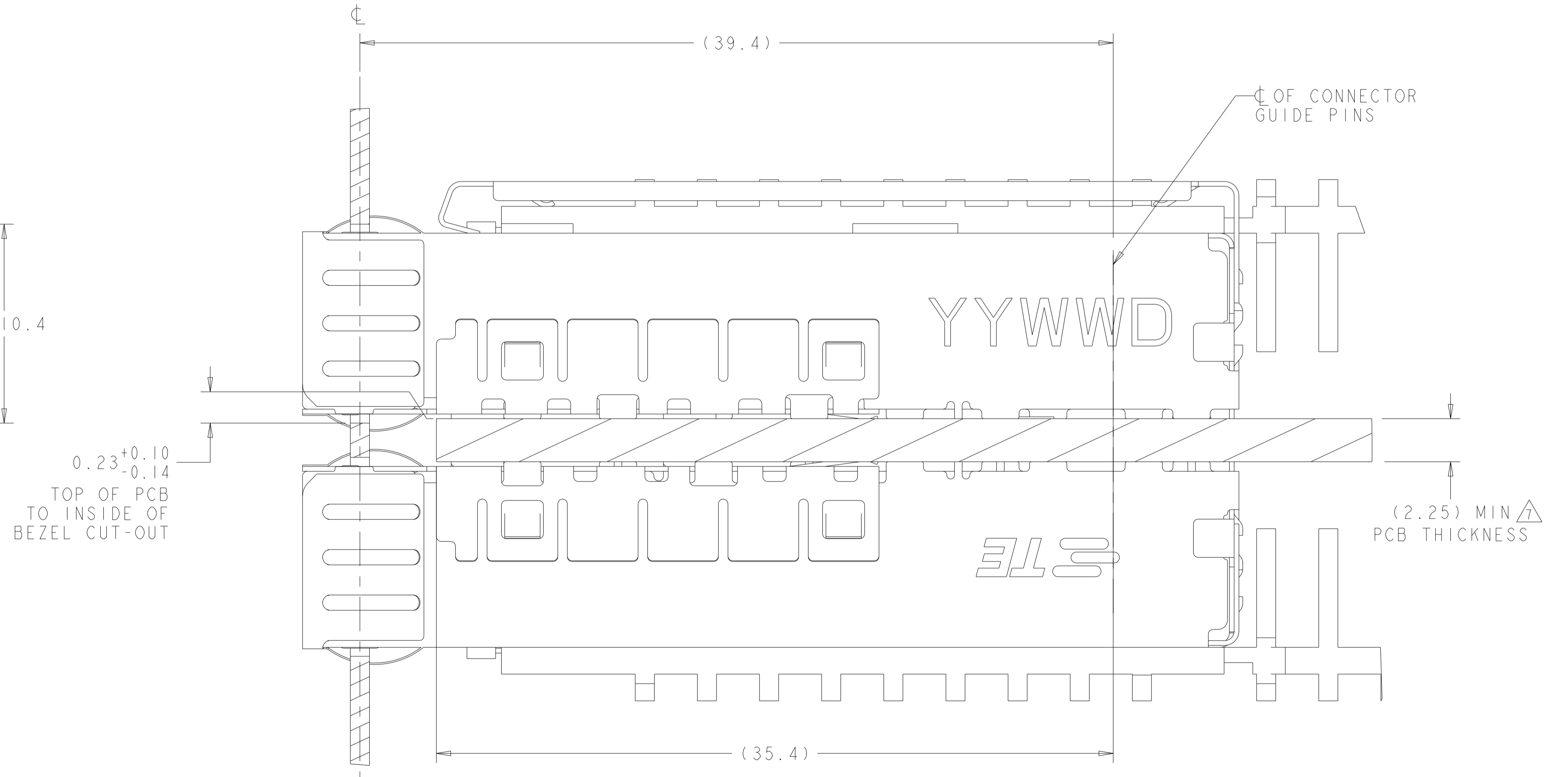
RECOMMENDED BEZEL CUT-OUT  
 SINGLE SIDED APPLICATIONS  
 SCALE 4:1



RECOMMENDED BEZEL CUT-OUT  
 BELLY TO BELLY APPLICATIONS



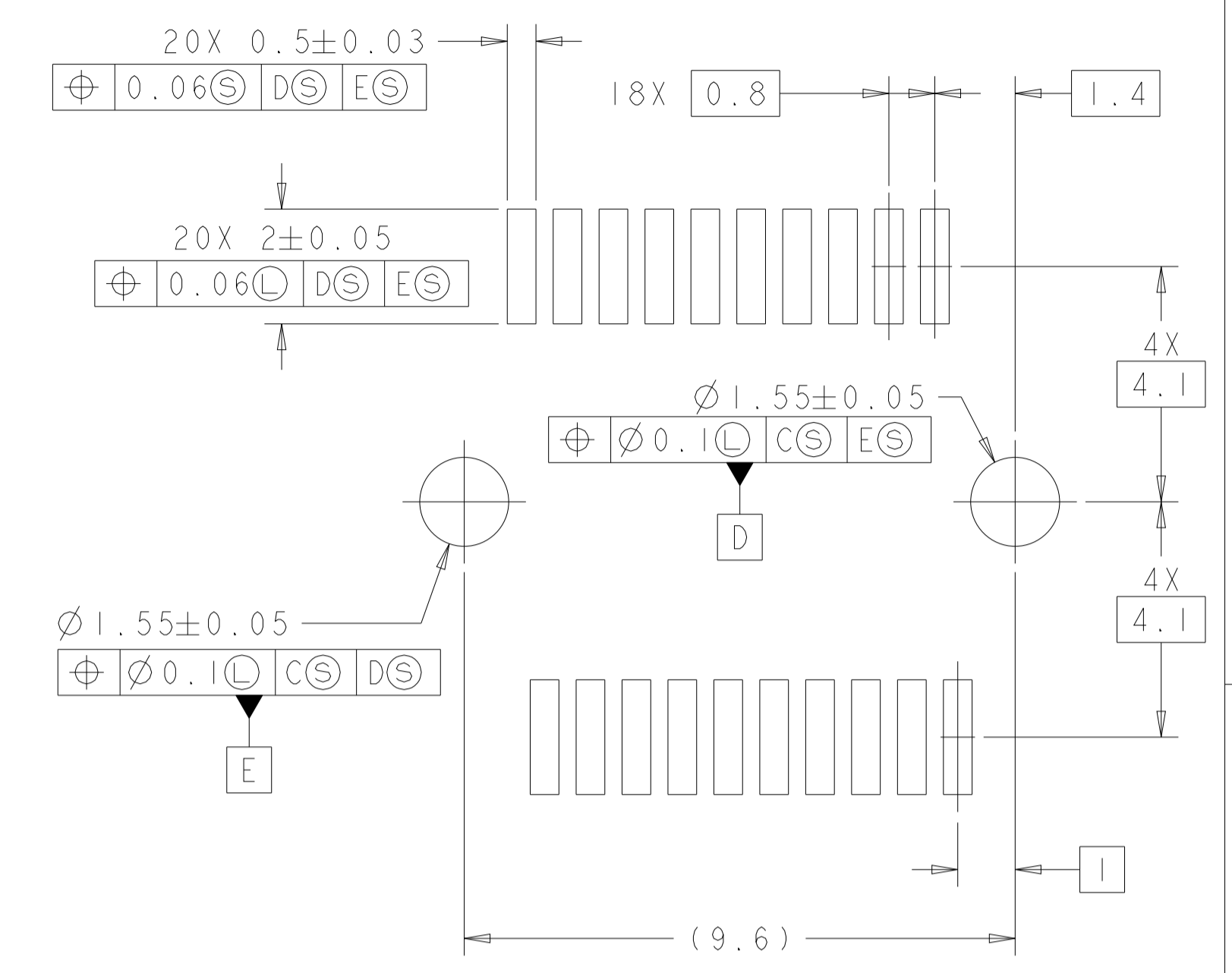
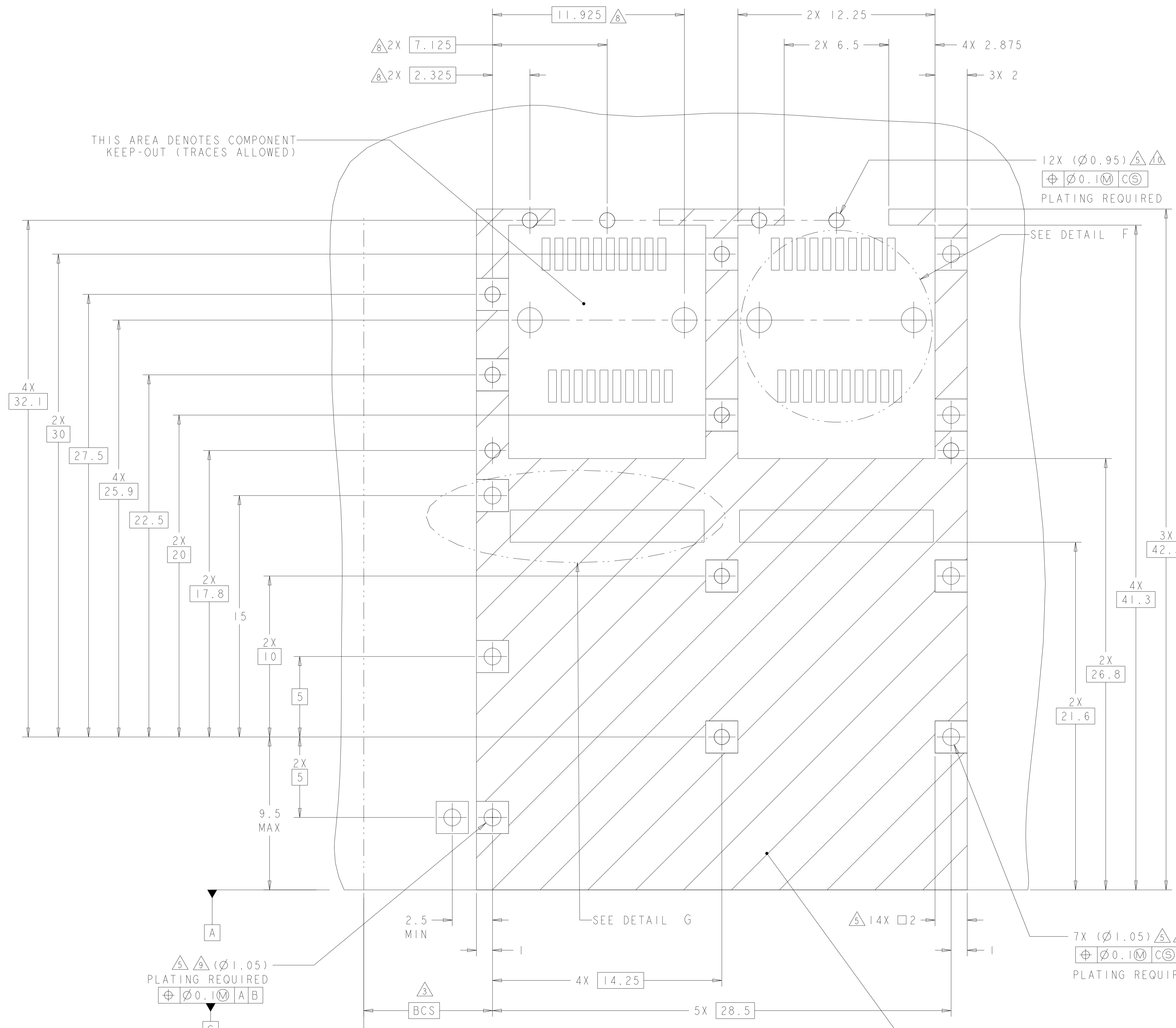
2170190-1  
 MOUNTED ON PC BOARD  
 SHOWN THRU RECOMMENDED BEZEL



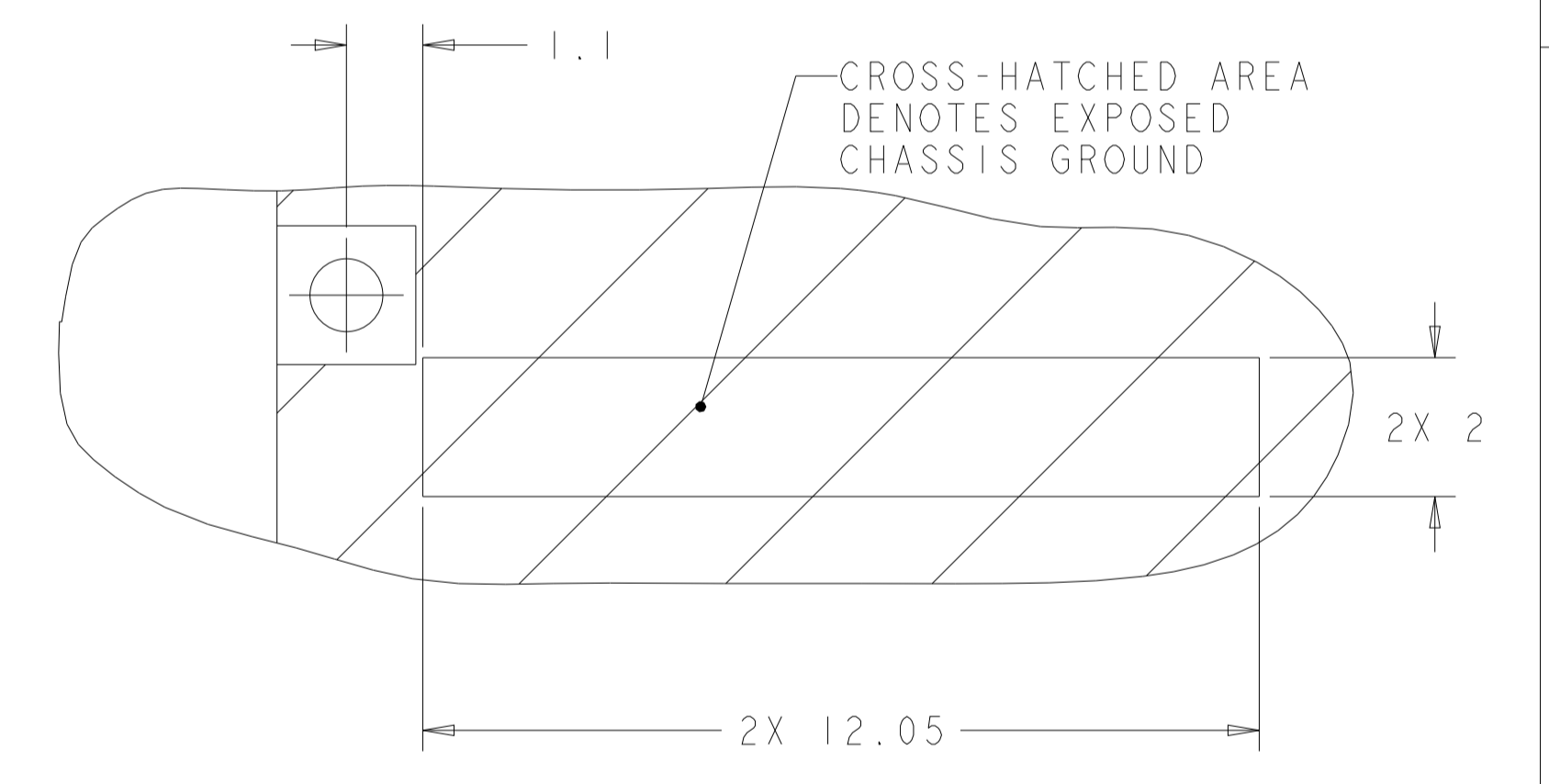
2170190-1  
 MOUNTED BELLY TO BELLY ON PC BOARD  
 SHOWN THRU RECOMMENDED BEZEL

THIS DRAWING IS A CONTROLLED DOCUMENT.		DMN	TIM XUE	21NOV2011	TE Connectivity
DIMENSIONS:		CHK	ALEX CAI	21NOV2011	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD	ALEX CAI	21NOV2011	NAME SFP+ ENHANCED 1X2 CAGE ASSEMBLY, PRESS-FIT, EMI SPRINGS, HEAT SINK
mm		PRODUCT SPEC	108-2364	APPLICATION SPEC	
0 PLC	±0.13	SIZE	114-13120	CAGE CODE	RESTRICTED TO
1 PLC	±0.1	WEIGHT	-	A100779	REV
2 PLC	±0.08	CUSTOMER DRAWING		SCALE	2:1
3 PLC	±0.05	SHEET		4	OF
4 PLC	±0.05	REV		A6	
ANGLES	±0.5				
FINISH	±1				

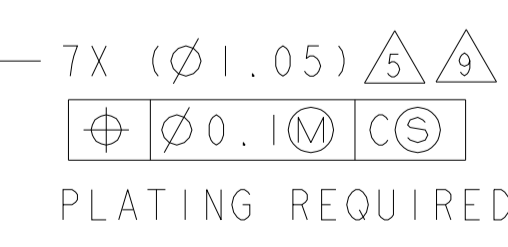
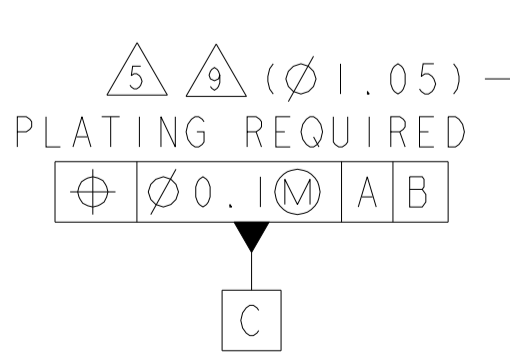
LOC	DIST	REVISIONS			
GP	00	REV	DATE	OWN	APVD
		1	SEE SHEET 1		



DETAIL F  
SCALE 10:1



DETAIL G  
SCALE 10:1

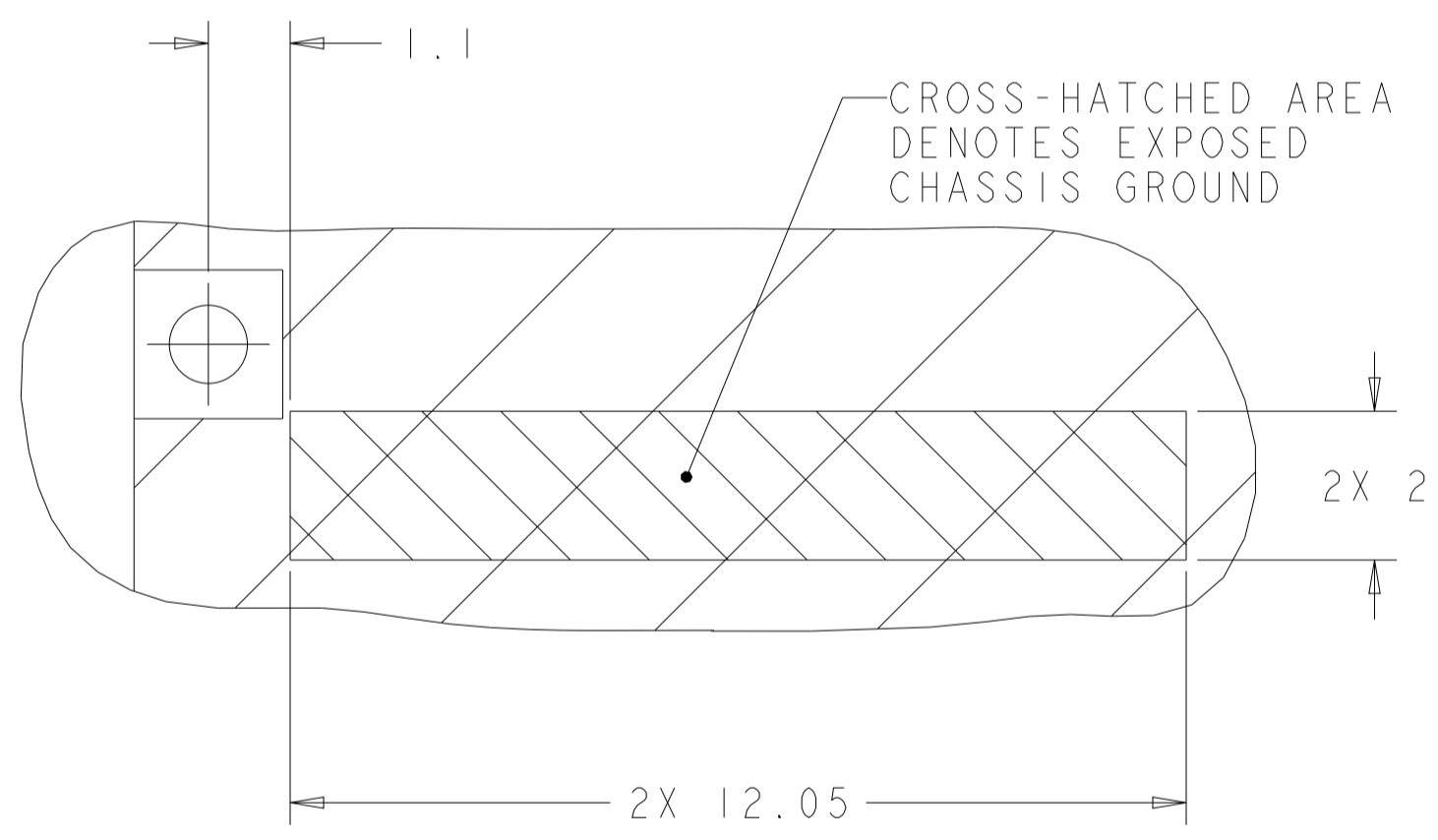
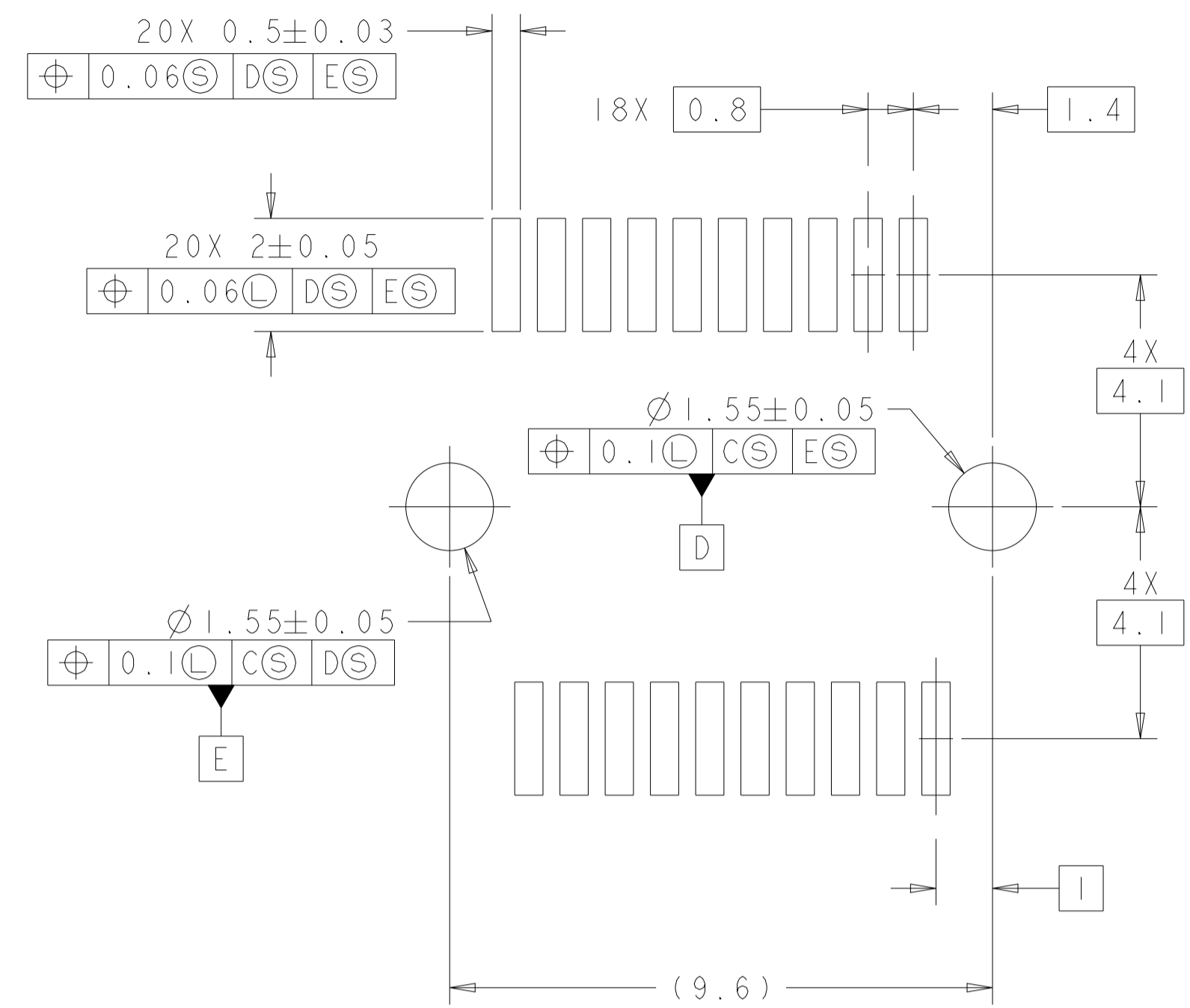
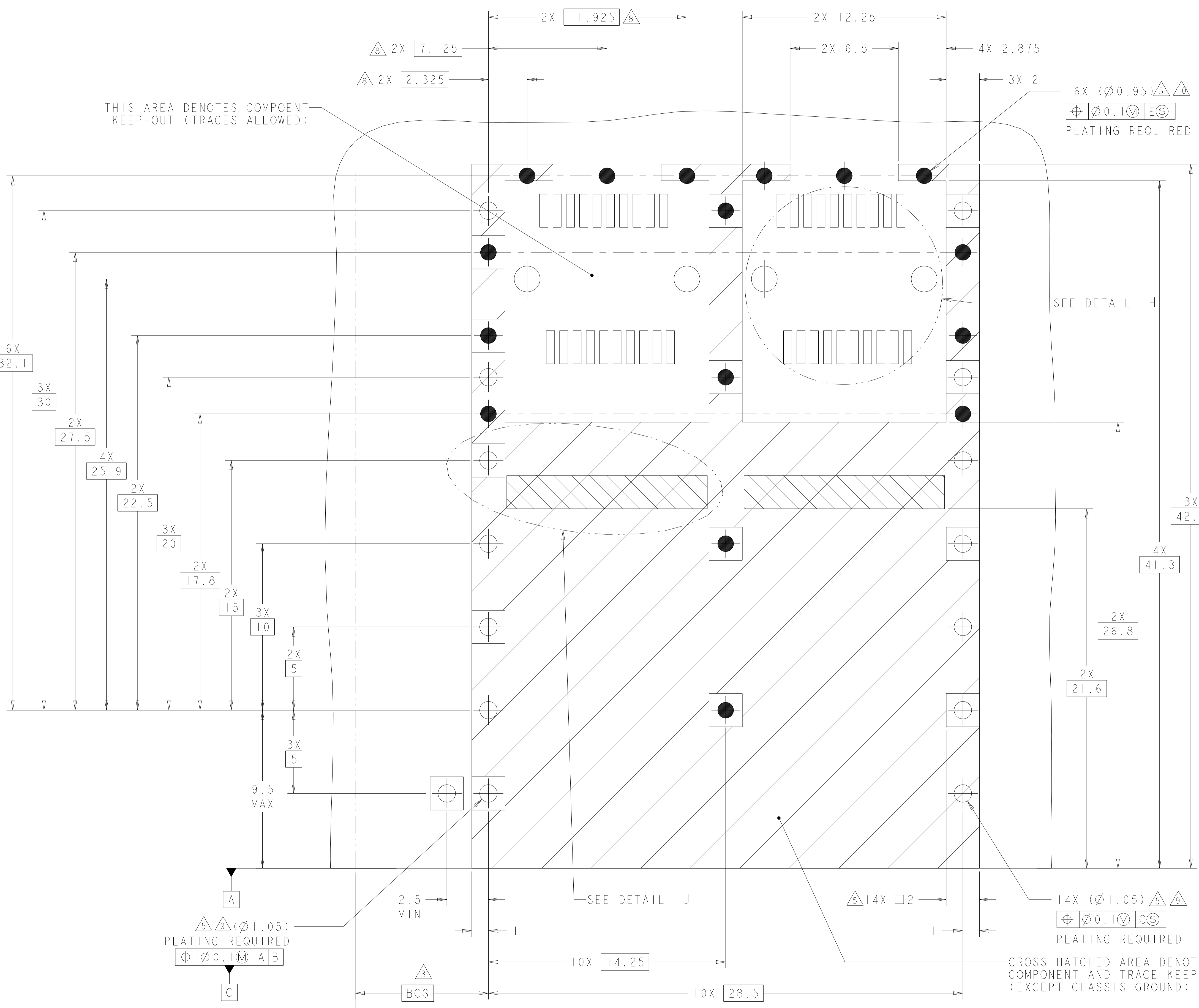


RECOMMENDED PCB CONFIGURATION  
WITH KEEP-OUT AREAS  
SINGLE SIDED APPLICATIONS  
SCALE 8:1

CROSS-HATCHED AREA DENOTES  
COMPONENT AND TRACE KEEP-OUT  
(EXCEPT CHASSIS GROUND)

THIS DRAWING IS A CONTROLLED DOCUMENT.		OWN: TIM XUE	21NOV2011	TE Connectivity
DIMENSIONS: mm		CHK: ALEX CAI	21NOV2011	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD: ALEX CAI	21NOV2011	
0 PLC ±0.13 1 PLC ±0.1 2 PLC ±0.08 3 PLC ±0.05 4 PLC ±0.05 ANGLES ±1		NAME: SFP+ ENHANCED 1X2 CAGE ASSEMBLY, PRESS-FIT, EMI SPRINGS, HEAT SINK	RESTRICTED TO: -	
MATERIAL:		PRODUCT SPEC: 108-2364	APPLICATION SPEC: 114-13120	SIZE: A1
		WEIGHT: -	CAGE CODE: -	DRAWING NO: 2170190
		CUSTOMER DRAWING		SCALE: 2:1
				SHEET 5 OF 6
				REV: A6

LOC	DIST	REVISIONS			
GP	00	REV	DESCRIPTION	DATE	BY
		-	SEE SHEET 1		



RECOMMENDED PCB CONFIGURATION WITH KEEP-OUT AREAS BELLY TO BELLY APPLICATIONS  
SCALE 8:1  $\Delta$

DIMENSIONS:		TOLERANCES UNLESS OTHERWISE SPECIFIED:		MATERIAL:	
mm	0 PLC $\pm$ 0.13	0 PLC $\pm$ 0.13	0 PLC $\pm$ 0.13	FINISH	
	1 PLC $\pm$ 0.1	1 PLC $\pm$ 0.1	1 PLC $\pm$ 0.1		
	2 PLC $\pm$ 0.08	2 PLC $\pm$ 0.08	2 PLC $\pm$ 0.08		
	3 PLC $\pm$ 0.05	3 PLC $\pm$ 0.05	3 PLC $\pm$ 0.05		
	4 PLC $\pm$ 0.05	4 PLC $\pm$ 0.05	4 PLC $\pm$ 0.05		
	ANGLES				

THIS DRAWING IS A CONTROLLED DOCUMENT.		OWN: TIM XUE	ZINOV2011	 TE Connectivity
DRAWING NO: 114-13120		CHK: ALEX CAI	ZINOV2011	
CAGE CODE: 108-2364		APVD: ALEX CAI	ZINOV2011	
APPLIC. SPEC: 114-13120		NAME: SFP+ ENHANCED 1X2 CAGE ASSEMBLY, PRESS-FIT, EMI SPRINGS, HEAT SINK		
WEIGHT: -		SIZE: CAGE CODE   DRAWING NO		
CUSTOMER DRAWING		A100779C=2170190		
SCALE: 2:1				RESTRICTED TO: -
SHEET 6 OF 6				REV A6