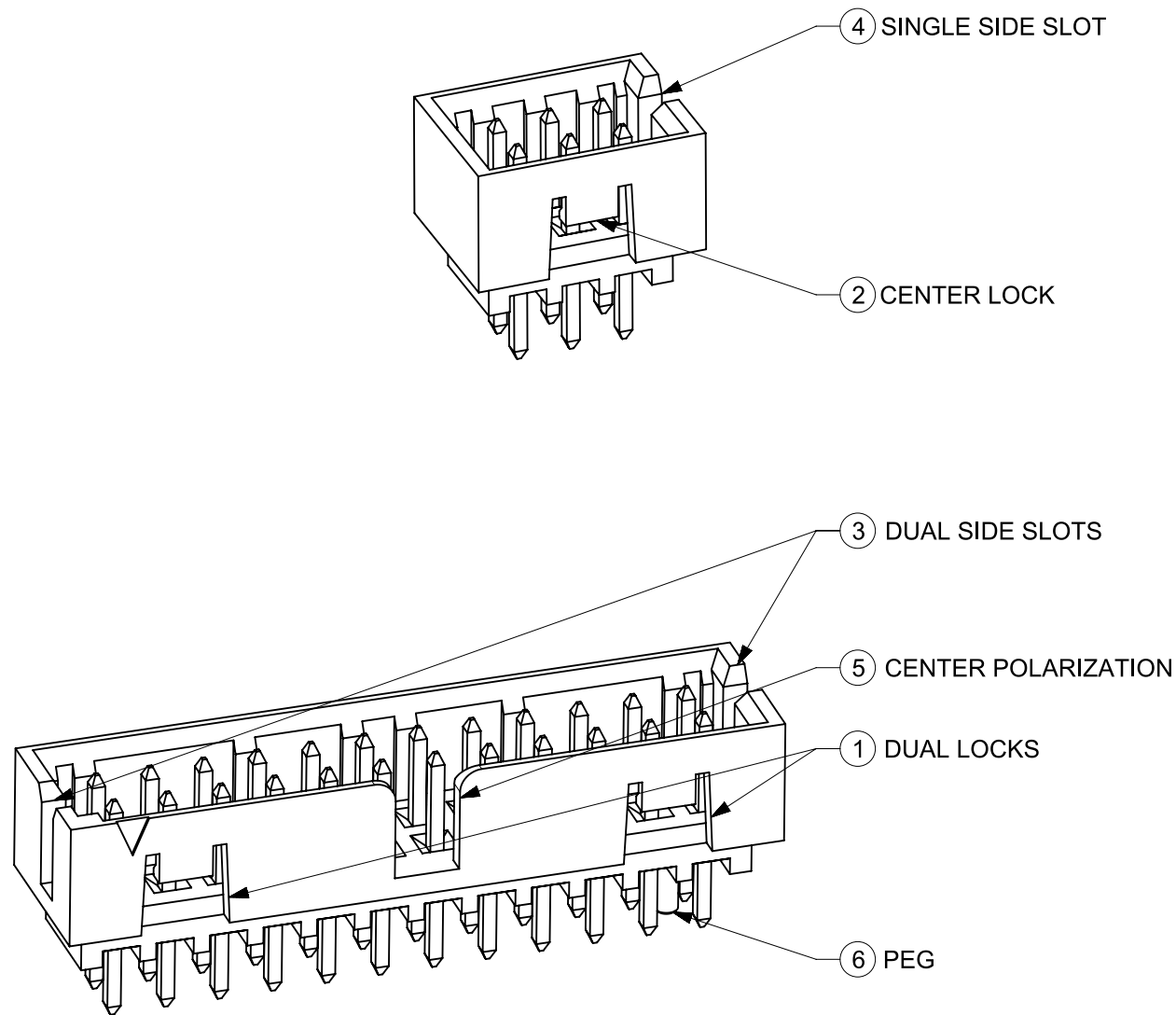


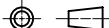
FEATURES SELECTION GUIDE



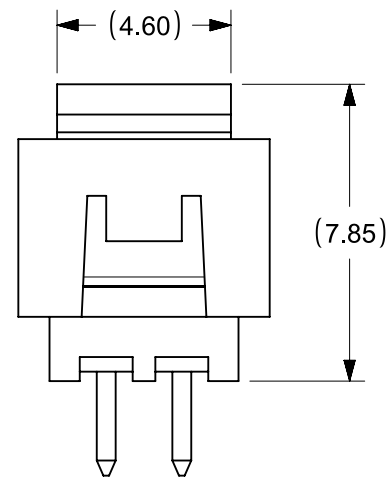
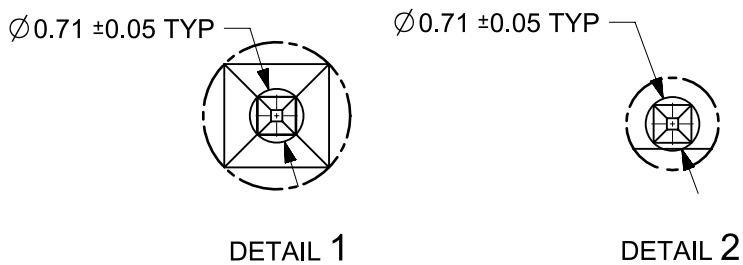
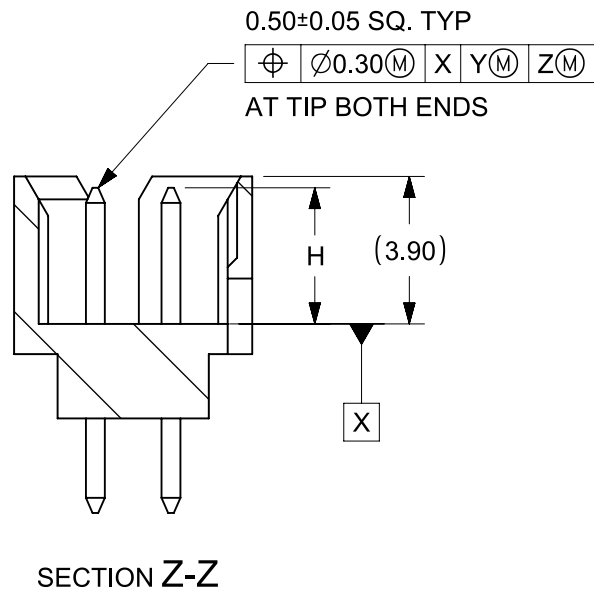
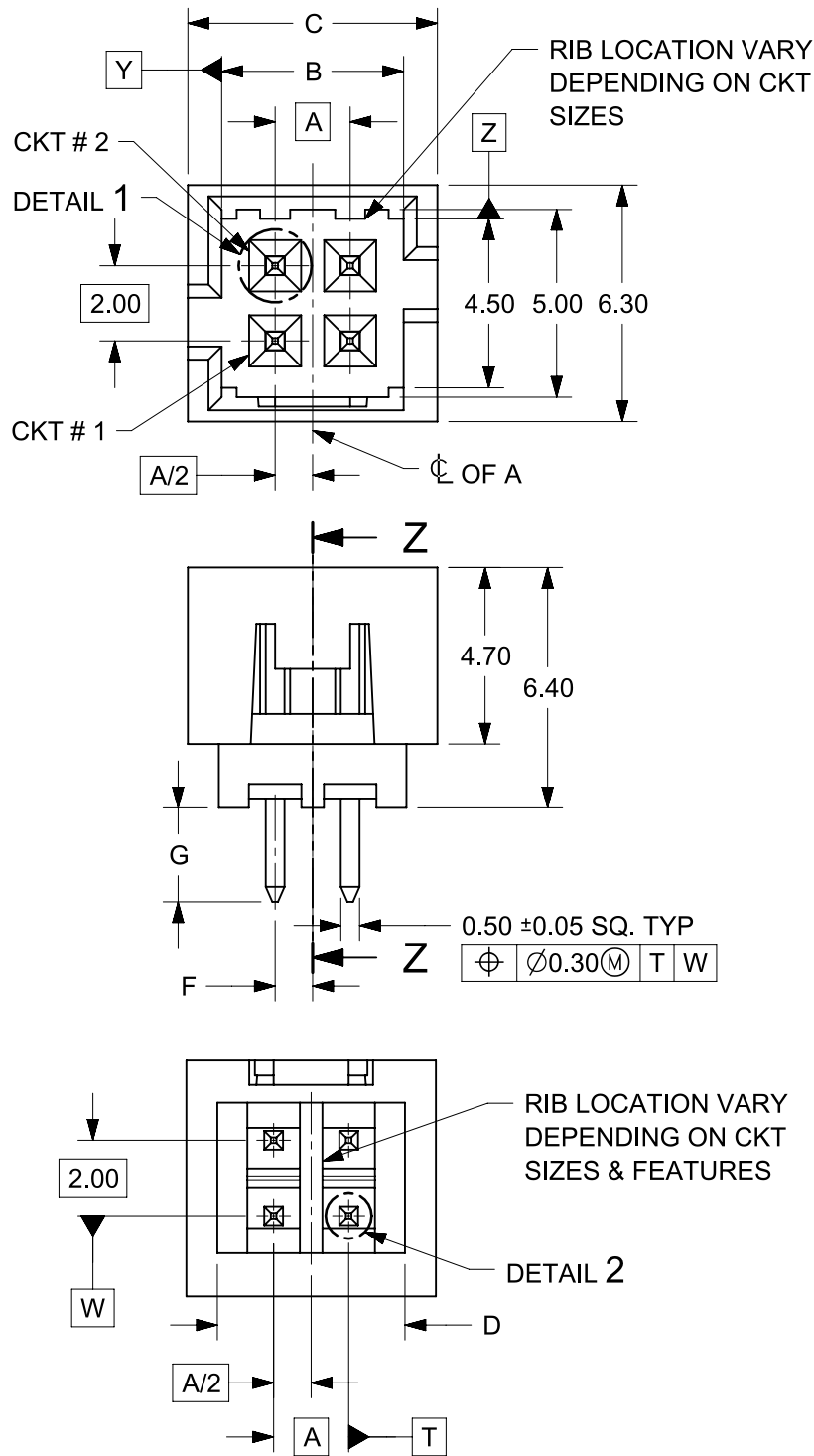
PACKAGING SPECIFICATION TABLE

TAPE AND REEL PACKAGING	PK-87831-300
TUBE STANDARD PACKAGING	PK-87831-001
TUBE NON-STANDARD PACKAGING FOR:	PK-87831-002
87831-0419 87831-0645	
87831-5141 87831-5119	
87831-0443 87831-1011	
87831-5241 87831-1420	
87831-5242	
87831-0643	

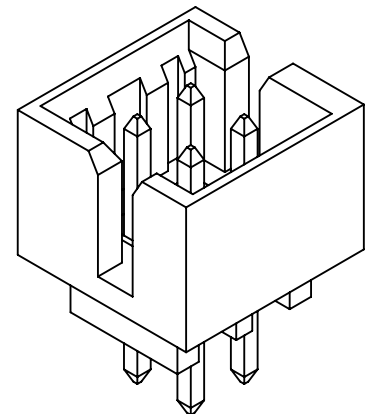
CIRCUIT SIZE		FEATURES						
		FRICTION LOCKS		SIDE SLOTS		⑤ CENTER POLARIZATION	⑥ PEG	SHEET NO
		① DUAL	② CENTER	③ DUAL	④ SINGLE			
4	N.A	N.A	YES	N.A	N.A	N.A	2 - 3	
	N.A	YES	YES	N.A	N.A	N.A		
	N.A	YES	N.A	YES	N.A	N.A		
6	N.A	N.A	YES	N.A	N.A	N.A	4 - 5	
	N.A	N.A	YES	N.A	N.A	YES		
	N.A	YES	YES	N.A	N.A	N.A		
	N.A	YES	YES	N.A	N.A	YES		
	N.A	YES	N.A	YES	N.A	N.A		
	N.A	YES	N.A	YES	N.A	YES		
	N.A	N.A	YES	N.A	YES	N.A		
8 TO 12	N.A	N.A	YES	N.A	YES	N.A	6 - 8	
	N.A	N.A	YES	N.A	YES	YES		
	N.A	YES	YES	N.A	N.A	N.A		
	N.A	YES	YES	N.A	N.A	YES		
	N.A	YES	N.A	YES	N.A	N.A		
	N.A	YES	N.A	YES	N.A	YES		
14 TO 50	YES	N.A	YES	N.A	YES	N.A	9 - 13	
	YES	N.A	YES	N.A	YES	YES		

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																	
DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				molex									
mm		NTS															
GENERAL TOLERANCES (UNLESS SPECIFIED)				MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER													
	MM		INCH														
4 PLACES ± 0 ± 0				EC NO: CO-000042098 DRWN: Meghraj Boodagatti 22-Apr-2026 CHK'D: Meghraj Boodagatti 08-Jun-2026 APPR: Saravanakumar Murugesan 08-Jun-2026				PRODUCT CUSTOMER DRAWING									
3 PLACES ± 0 ± 0																	
2 PLACES ± 0.2 ± 0																	
1 PLACE ± 0 ± 0																	
0 PLACES ± 0 ± 0				INITIAL REVISION: DRWN: GMENARLY 2015/04/15 APPR: KHLIM 2015/06/29				DOCUMENT NUMBER				DOC TYPE		DOC PART		REVISION	
ANGULAR TOL ± 3°								SD-87831-0001				PSD		001		A25	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER		SHEET NUMBER			
				A3-SIZE		87831		SEE TABLE		GENERAL MARKET		1 OF 14					

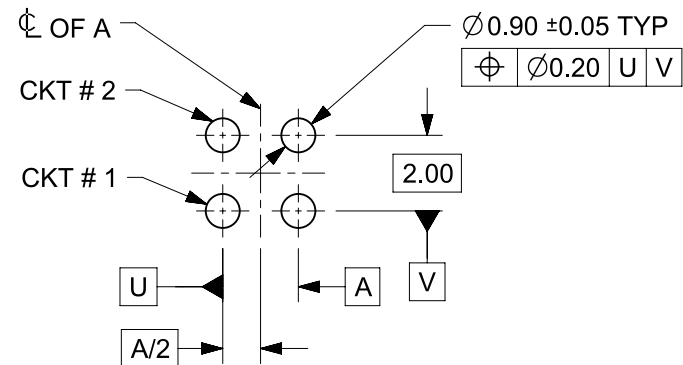
4 CIRCUITS



VIEW FOR
HEADER WITH CAP



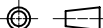
VIEW FOR HEADER
WITH ONLY DUAL SLOTS



RECOMMENDED PCB LAYOUT

NOTES:

1. MATERIALS:
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK
PIN: 0.50mm SQ. PHOSPHOR BRONZE
2. FINISHES: REFER TO PLATING OPTIONS
3. PRODUCT SPECIFICATION: PS-87831-027
4. PACKAGING SPECIFICATION: SEE PACKAGING SPECS TABLE ON SHEET 1
5. MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES
AND CRIMP TERMINAL: 50394 SERIES
B. MOLEX 2mm MILLIGRID DUAL ROW IDT: 87568 SERIES
C. MOLEX 2mm MILLIGRID DUAL ROW RECEPTACLE:
79107 (GOLD PLATED), 78787 (TIN PLATED)

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									
DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				molex	
mm	NTS								
GENERAL TOLERANCES (UNLESS SPECIFIED)					MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER PRODUCT CUSTOMER DRAWING DOCUMENT NUMBER SD-87831-0001 DOC TYPE PSD DOC PART 001 REVISION A25 MATERIAL NUMBER SEE TABLE CUSTOMER GENERAL MARKET SHEET NUMBER 2 OF 14				
			MM	INCH					
4 PLACES	± 0	± 0							
3 PLACES	± 0	± 0							
2 PLACES	± 0.2	± 0							
1 PLACE	± 0	± 0							
0 PLACES	± 0	± 0							
ANGULAR TOL ± 3 °			EC NO: CO-000042098						
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			DRWN: Meghraj Boodagatti		22-Apr-2026				
			CHK'D: Meghraj Boodagatti		08-Jun-2026				
			APPR: Saravanakumar Murugesan		08-Jun-2026				
			INITIAL REVISION:						
			DRWN: GMENARLY		2015/04/15				
			APPR: KHLIM		2015/06/29				
THIRD ANGLE PROJECTION 			DRAWING		SERIES				
			A3-SIZE		87831				

10	9	8	7	6	5	4	3	2	1									
4 CIRCUITS																		
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION							
					DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H
4	87831-0419	N.A	N.A	1	N.A	N.A	YES	N.A	N.A	N.A	2.00	4.85	6.65	5.00	N.A	N.A	2.50	3.60±0.20
	87831-0420	N.A	N.A	2														
	87831-0421	N.A	N.A	3														
	87831-0436	N.A	N.A	4														
	87831-0441	87831-0456	N.A	2	N.A	YES	YES	N.A	N.A	N.A						1.00	2.50	
	87831-0442	N.A	87831-5565	3														
	87831-5141	N.A	N.A	2	N.A	YES	YES	N.A	N.A	3.50								
	87831-5142	N.A	N.A	3														
	87831-6141	N.A	N.A	2	N.A	YES	YES	N.A	N.A								2.80	
	87831-6142	N.A	N.A	3														
	87831-0443	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A								
	87831-0444	N.A	N.A	3														

PLATING OPTIONS:

1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND
1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER
1.27µm/50µin MIN. NICKEL OVERALL.

2 - 0.38µm/15µin GOLD IN CONTACT AREA AND
1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER
1.27µm/50µin MIN. NICKEL OVERALL.

3 - 0.76µm/30µin GOLD IN CONTACT AREA AND
1.88µm/75µin MIN. MATTETIN IN SOLDER TAIL AREA OVER
1.27µm/50µin MIN. NICKEL OVERALL.

4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.

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DIMENSION UNITS

mm

SCALE

NTS

GENERAL TOLERANCES
(UNLESS SPECIFIED)

	MM	INCH
4 PLACES	± 0	± 0
3 PLACES	± 0	± 0
2 PLACES	± 0.2	± 0
1 PLACE	± 0	± 0
0 PLACES	± 0	± 0
ANGULAR TOL	± 3 °	

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

THIRD ANGLE PROJECTION

DRAWING

A3-SIZE

SERIES

87831

CURRENT REV DESC: Adding New Part Numbers

EC NO: CO-000042098

DRWN: Meghraj Boodagatti

CHK'D: Meghraj Boodagatti

APPR: Saravanakumar Murugesan

22-Apr-2026

08-Jun-2026

08-Jun-2026

INITIAL REVISION:

DRWN: GMENARLY

APPR: KHLIM

2015/04/15

2015/06/29

DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

PSD

DOC PART

001

REVISION

A25

PRODUCT CUSTOMER DRAWING

MILLIGRID

2MM PITCH, THROUGH HOLE VERTICAL SHROUDED
HEADER

MATERIAL NUMBER

SEE TABLE

CUSTOMER

GENERAL MARKET

SHEET NUMBER

3 OF 14

DOCUMENT STATUS

Production

RELEASE DATE

08-Jun-2026

04:36:51

9

8

7

6

5

4

3

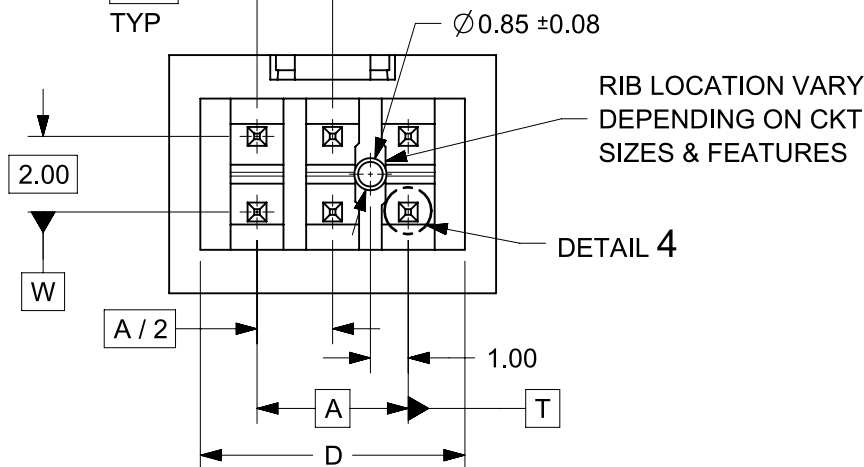
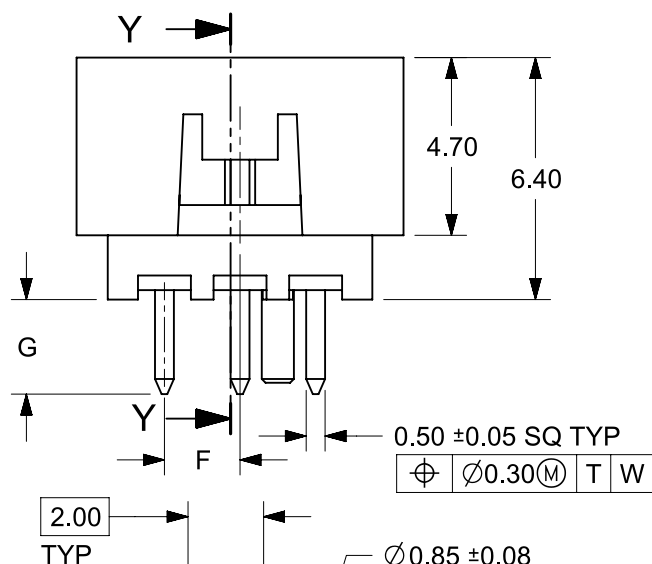
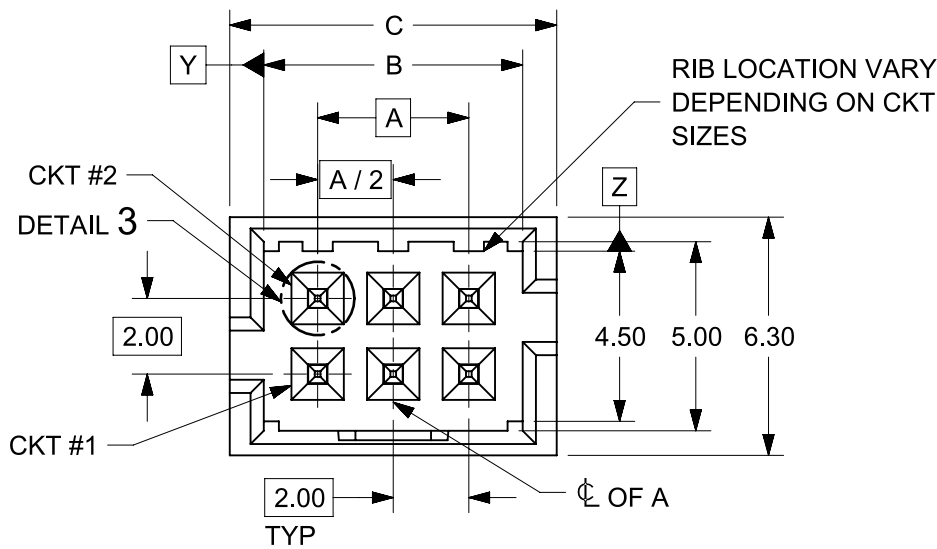
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1

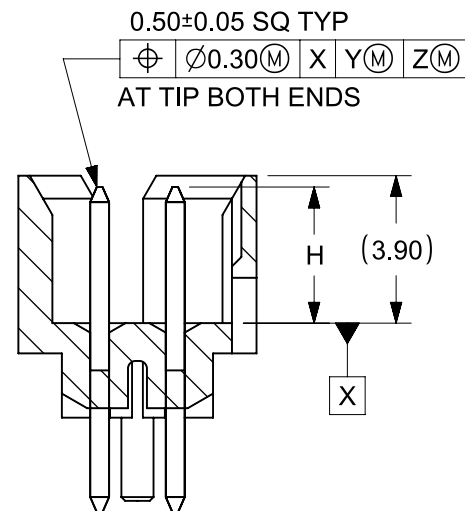
FORMAT: Msl-Rpqa-master-4b-prod-A3

REVISION: E1

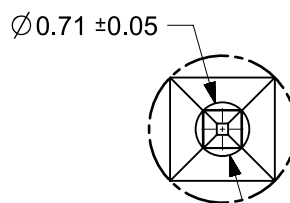
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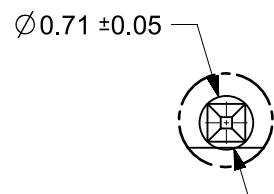
6 CIRCUITS



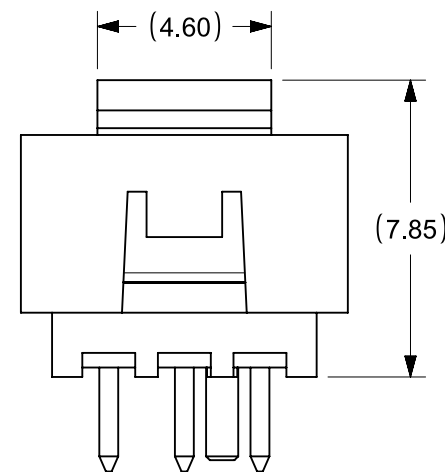
SECTION Y-Y



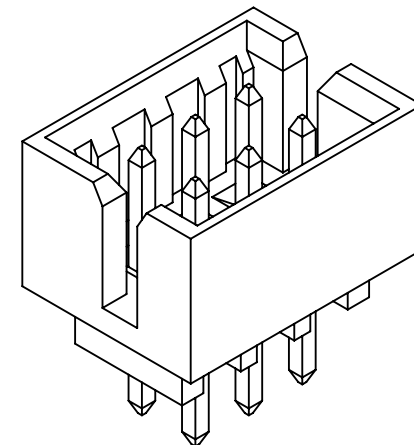
DETAIL 3



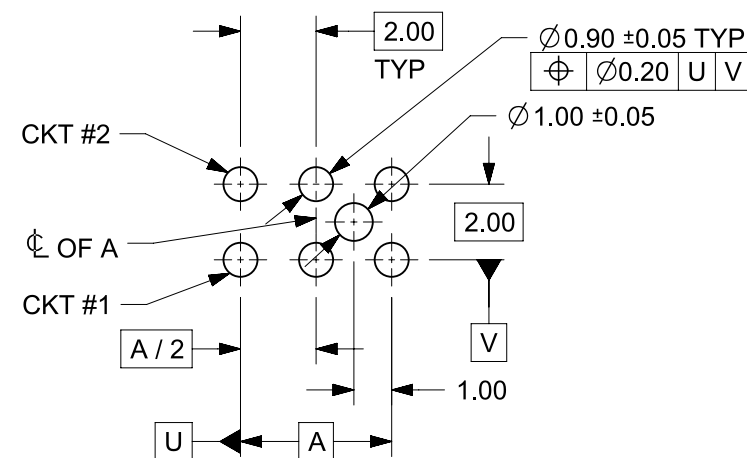
DETAIL 4



VIEW FOR
HEADER WITH CAP



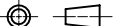
VIEW FOR HEADER WITH
ONLY DUAL SLOTS



RECOMMENDED PCB LAYOUT

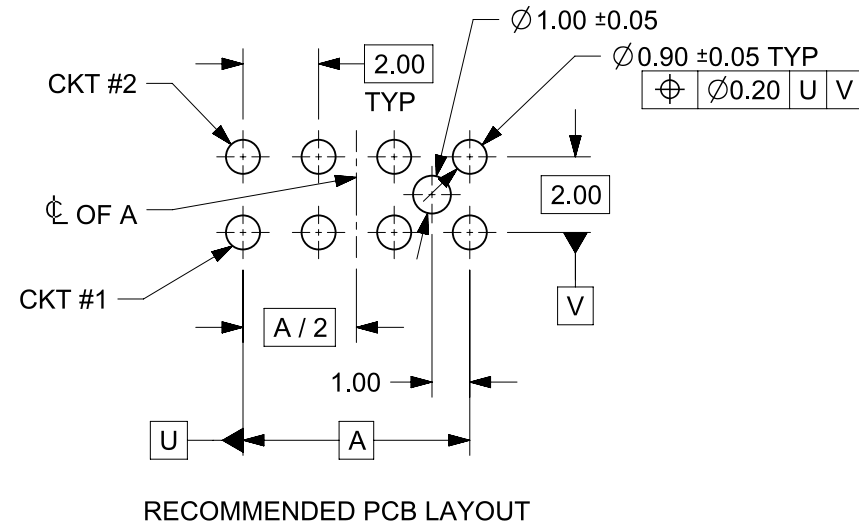
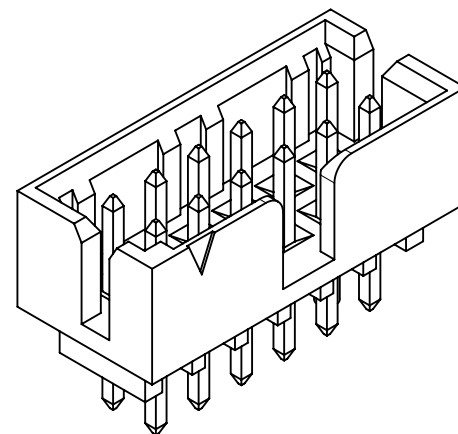
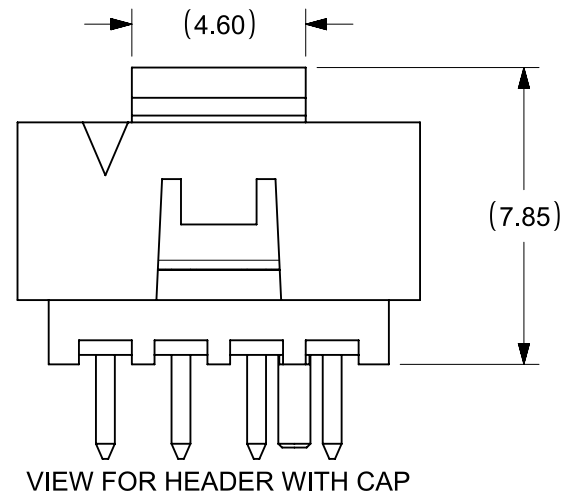
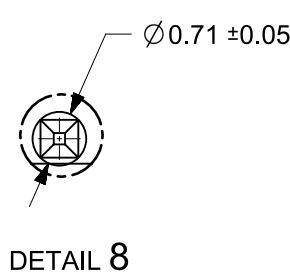
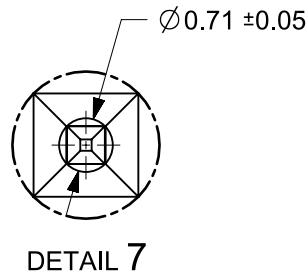
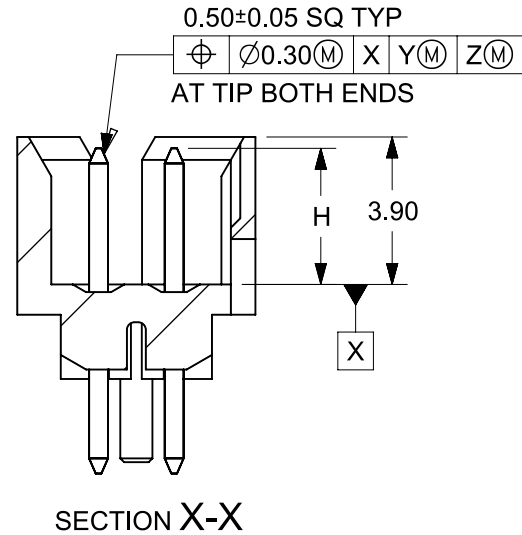
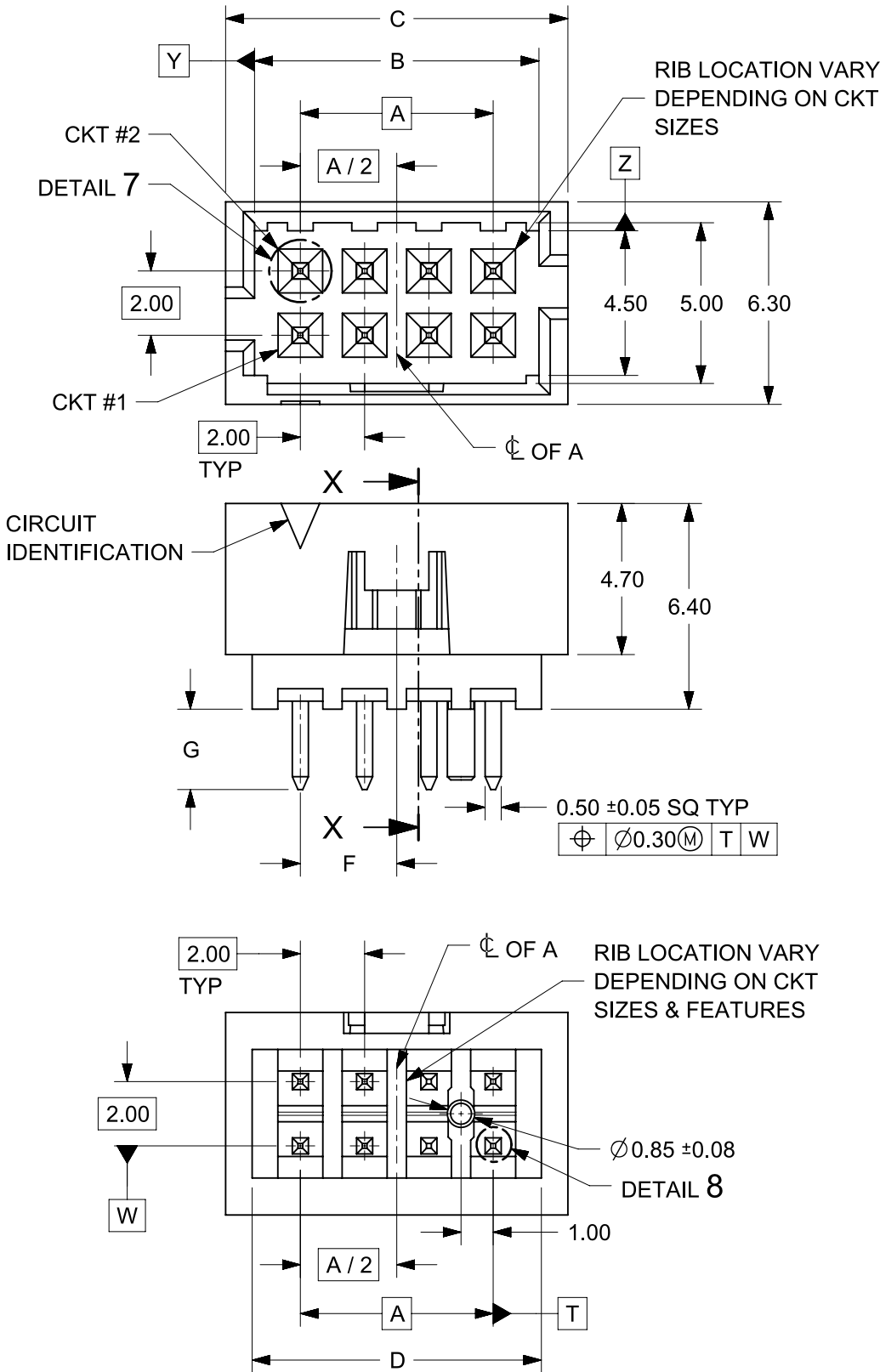
NOTES:

- MATERIALS:
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK
PIN: 0.50mm SQ PHOSPHOR BRONZE
- FINISHES: REFER TO PLATING OPTIONS
- PRODUCT SPECIFICATION: PS-87831-027
- PACKAGING SPECIFICATION: SEE PACKAGING SPECS TABLE ON SHEET 1
- MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES
B. MOLEX 2mm MILLIGRID DUAL ROW IDT: 87568 SERIES
C. MOLEX 2mm MILLIGRID DUAL ROW RECEPTACLE: 79107 (GOLD PLATED), 78787 (TIN PLATED)

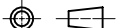
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																	
DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				molex MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER PRODUCT CUSTOMER DRAWING									
mm		NTS															
GENERAL TOLERANCES (UNLESS SPECIFIED)				EC NO: CO-000042098 DRWN: Meghraj Boodagatti 22-Apr-2026 CHK'D: Meghraj Boodagatti 08-Jun-2026 APPR: Saravanakumar Murugesan 08-Jun-2026													
	MM	INCH															
4 PLACES	± 0	± 0															
3 PLACES	± 0	± 0															
2 PLACES	± 0.2	± 0															
1 PLACE	± 0	± 0															
0 PLACES	± 0	± 0		INITIAL REVISION:													
ANGULAR TOL		± 3 °		DRWN: GMENARLY 2015/04/15		2015/06/29		APPR: KHLIM									
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING		SERIES		DOCUMENT NUMBER		DOC TYPE		DOC PART		REVISION	
						A3-SIZE		87831		SD-87831-0001		PSD		001		A25	
										SEE TABLE		GENERAL MARKET				SHEET NUMBER 4 OF 14	

10	9	8	7	6	5	4	3	2	1																		
6 CIRCUITS																											
F	CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION															
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H								
E	6	87831-0619	N.A	N.A	1	N.A	N.A	YES	N.A	N.A	N.A	4.00	6.85	8.65	7.00	N.A	N.A	2.50	3.60±0.20								
		87831-0620	N.A	N.A	2																						
		87831-0621	N.A	N.A	3																						
		87831-0636	N.A	N.A	4																						
D	6	87831-0628	N.A	N.A	2	N.A	N.A	YES	N.A	N.A	YES						N.A	6.85		8.65	7.00	N.A	N.A	2.50	3.60±0.20		
		87831-0629	N.A	N.A	3																						
		87831-0641	N.A	87831-0647	2																						
		87831-0642	N.A	87831-5552	3																						
C	6	87831-5241	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						N.A	6.85		8.65	7.00	N.A	2.00	2.50	3.60 ^{+0.15} -0.10		
		87831-5242	N.A	N.A	3																						
		87831-6241	N.A	N.A	2																						
		87831-6242	N.A	N.A	3																						
B	6	87831-0643	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A						N.A	6.85	8.65	7.00	N.A	2.00	2.50	3.60±0.20			
		87831-0644	N.A	N.A	3																						
		87831-0645	N.A	N.A	2																						
		87831-0646	N.A	N.A	3																						
A	6	87831-0632	N.A	N.A	2	N.A	YES	YES	N.A	N.A	YES						N.A	6.85	8.65	7.00	N.A	2.00	2.50	3.60±0.20			
		87831-5119	N.A	N.A	1																						
		87831-5121	N.A	N.A	3																						
		87831-5136	N.A	N.A	4																						
PLATING OPTIONS: 1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL. 2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL. 3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL. 4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.																											
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																											
DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				molex																			
mm		NTS																									
GENERAL TOLERANCES (UNLESS SPECIFIED)				EC NO: CO-000042098 DRWN: Meghraj Boodagatti 22-Apr-2026 CHK'D: Meghraj Boodagatti 08-Jun-2026 APPR: Saravanakumar Murugesan 08-Jun-2026				MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER																			
4 PLACES		±	0	±	0	INITIAL REVISION: DRWN: GMENARLY 2015/04/15 APPR: KHLIM 2015/06/29				DOCUMENT NUMBER SD-87831-0001		DOC TYPE PSD	DOC PART 001	REVISION A25													
3 PLACES		±	0	±	0																						
2 PLACES		±	0.2	±	0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING A3-SIZE	SERIES 87831	MATERIAL NUMBER SEE TABLE		CUSTOMER GENERAL MARKET		SHEET NUMBER 5 OF 14									
1 PLACE		±	0	±	0																						
0 PLACES		±	0	±	0	ANGULAR TOL ± 3 °				THIRD ANGLE PROJECTION		DRAWING A3-SIZE	SERIES 87831	MATERIAL NUMBER SEE TABLE		CUSTOMER GENERAL MARKET		SHEET NUMBER 5 OF 14									
		±	0	±	0																						
DOCUMENT STATUS										Production		RELEASE DATE		08-Jun-2026 04:36:51													
10										9		8		7		6		5		4		3		2		1	

8 TO 12 CIRCUITS



- NOTES:
- MATERIALS:
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK
PIN: 0.50mm SQ PHOSPHOR BRONZE
 - FINISHES: REFER TO PLATING OPTIONS
 - PRODUCT SPECIFICATION: PS-87831-027
 - PACKAGING SPECIFICATION: SEE PACKAGING SPECS TABLE ON SHEET 1
 - MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES
B. MOLEX 2mm MILLIGRID DUAL ROW IDT: 87568 SERIES
C. MOLEX 2mm MILLIGRID DUAL ROW RECEPTACLE: 79107 (GOLD PLATED), 78787 (TIN PLATED)

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									
DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				molex MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER PRODUCT CUSTOMER DRAWING	
mm		NTS							
GENERAL TOLERANCES (UNLESS SPECIFIED)									
	MM	INCH							
4 PLACES	± 0	± 0							
3 PLACES	± 0	± 0							
2 PLACES	± 0.2	± 0							
1 PLACE	± 0	± 0							
0 PLACES	± 0	± 0							
ANGULAR TOL ± 3°				EC NO: CO-000042098		DRWN: Meghraj Boodagatti		22-Apr-2026	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				EC NO: CO-000042098		DRWN: Meghraj Boodagatti		22-Apr-2026	
				CHK'D: Meghraj Boodagatti		08-Jun-2026			
				APPR: Saravanakumar Murugesan		08-Jun-2026			
INITIAL REVISION:				EC NO: CO-000042098		DRWN: Meghraj Boodagatti		22-Apr-2026	
DRWN: GMENARLY				2015/04/15		CHK'D: Meghraj Boodagatti		08-Jun-2026	
APPR: KHLIM				2015/06/29		APPR: Saravanakumar Murugesan		08-Jun-2026	
THIRD ANGLE PROJECTION				DRAWING		SERIES		DOCUMENT NUMBER	
				A3-SIZE		87831		SD-87831-0001	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING		SERIES	
				A3-SIZE		87831			
MATERIAL NUMBER				CUSTOMER				DOC TYPE	
SEE TABLE				GENERAL MARKET				PSD	
SHEET NUMBER				6 OF 14				DOC PART	
SD-87831-0001				001				A25	

10	9	8	7	6	5	4	3	2	1															
8 CIRCUITS																								
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION													
					DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H						
8	87831-0819	N.A	N.A	1	N.A	N.A	YES	N.A	YES	N.A	6.00	8.85	10.65	9.00	N.A	N.A	2.50	3.60±0.20						
	87831-0820	N.A	N.A	2																				
	87831-0821	N.A	N.A	3																				
	87831-0836	N.A	N.A	4																				
	87831-0828	N.A	N.A	2	N.A	N.A	YES	N.A	YES	YES						N.A	2.50		3.00	N.A	2.50	3.60±0.20		
	87831-0829	N.A	N.A	3																				
	87831-0841	N.A	87831-5551	2																				
	87831-0842	N.A	N.A	3	N.A	YES	YES	N.A	N.A	YES													N.A	2.50
	87831-5841	N.A	N.A	2																				
	87831-5441	N.A	N.A	2																				
	87831-5442	N.A	N.A	3	N.A	YES	YES	N.A	N.A	N.A						N.A	2.80			3.60±0.15 -0.10				
	87831-5541	N.A	N.A	2																				
	87831-5542	N.A	N.A	3																				
	87831-5741	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A											N.A		2.50	3.60±0.15 -0.10
	87831-0832	N.A	N.A	2																				
	87831-0843	N.A	N.A	2																				
	87831-0844	N.A	N.A	3	N.A	YES	N.A	YES	N.A	N.A						N.A	2.50							
	87831-0845	N.A	N.A	2																				
87831-0846	N.A	N.A	3																					

PLATING OPTIONS:

1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.

2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.

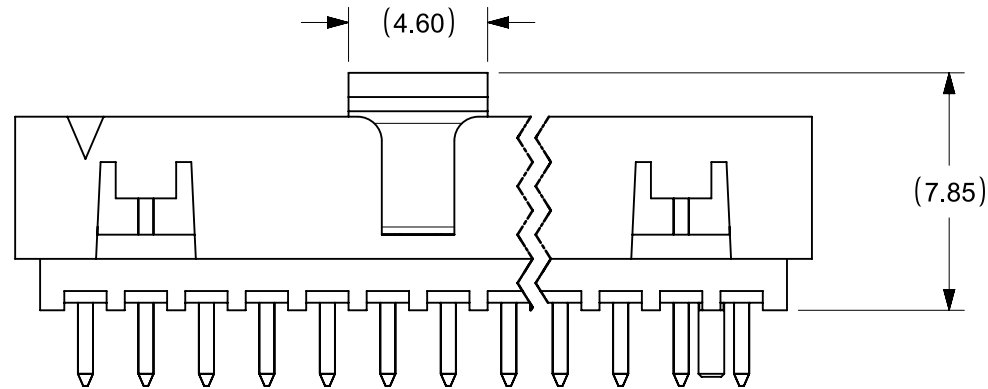
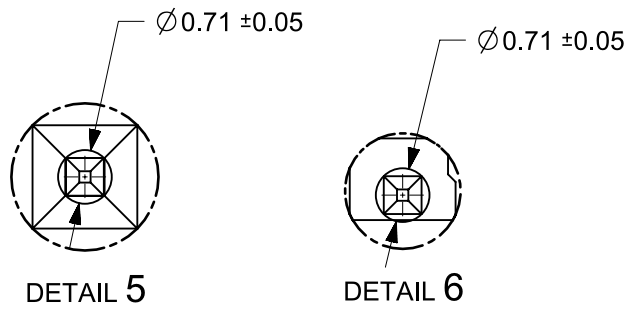
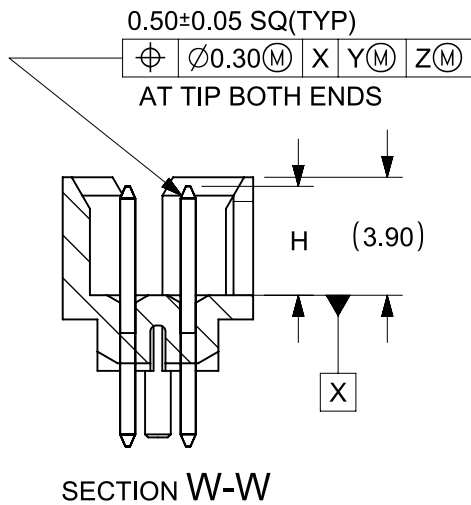
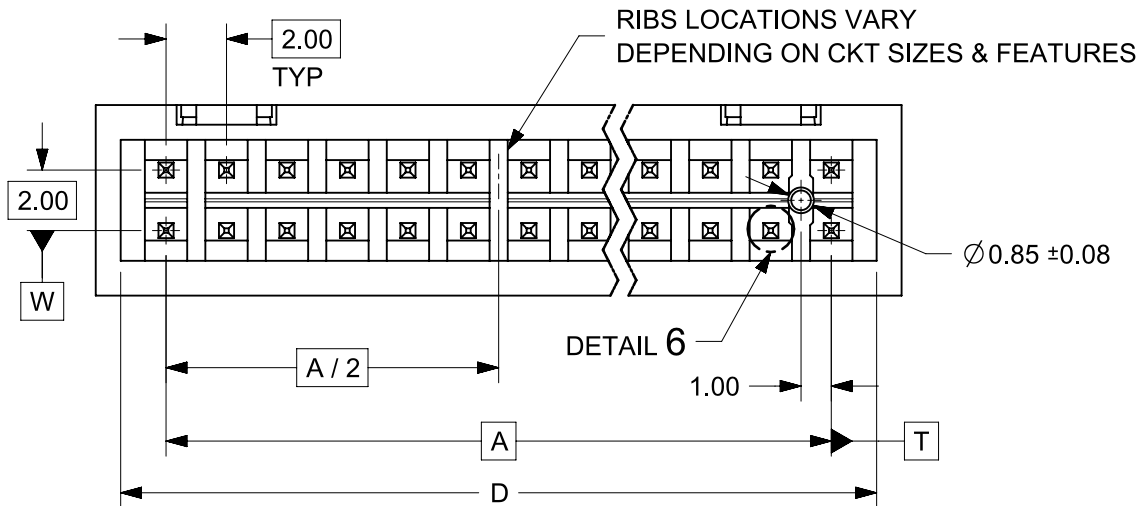
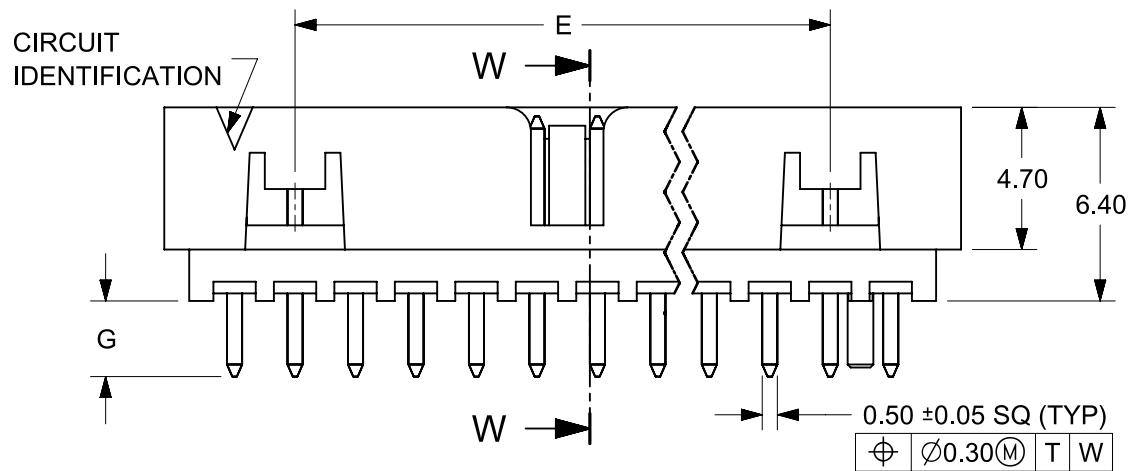
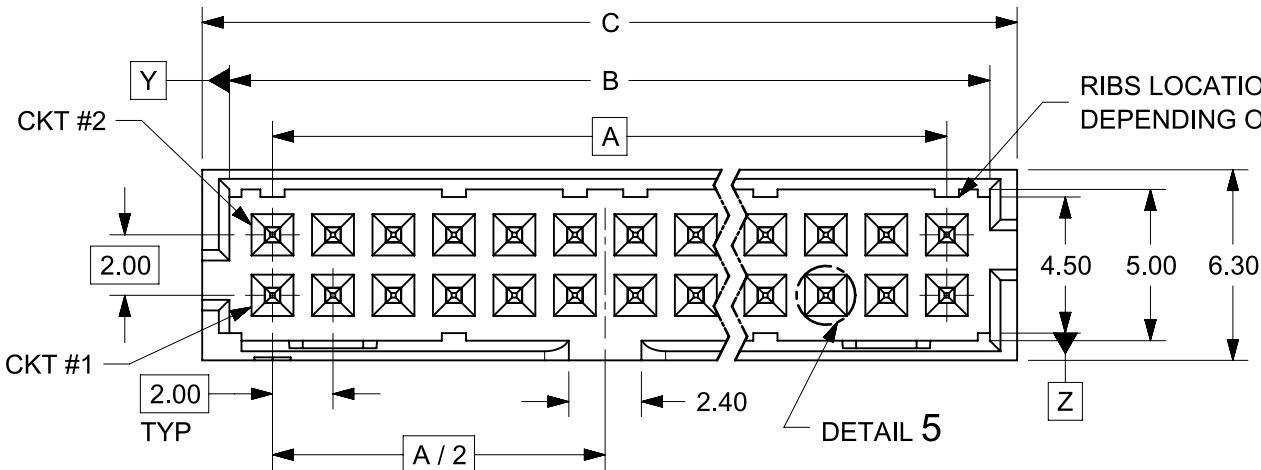
3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.

4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.

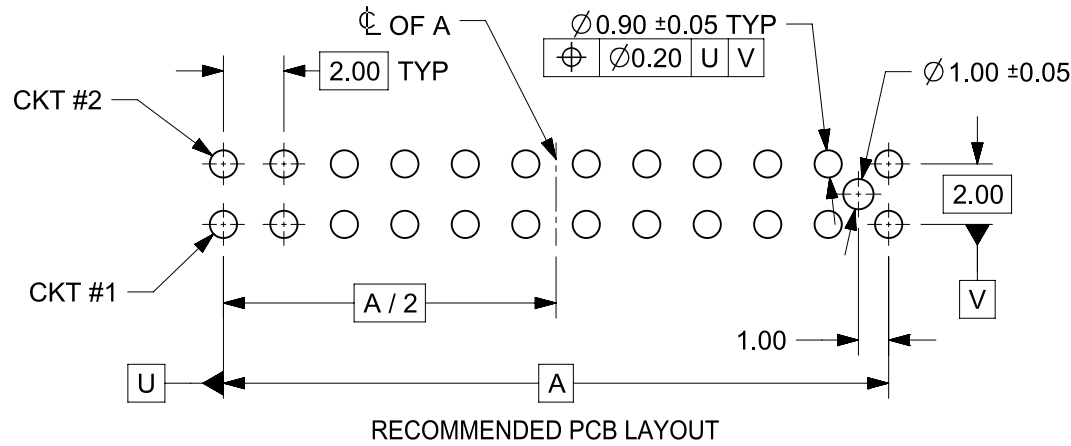
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION															
DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				moLEX MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER							
mm		NTS													
GENERAL TOLERANCES (UNLESS SPECIFIED)				EC NO: CO-000042098								2015/04/15			
4 PLACES		± 0	± 0	DRWN: Meghraj Boodagatti		22-Apr-2026		2015/06/29		SD-87831-0001					
3 PLACES		± 0	± 0	CHK'D: Meghraj Boodagatti		08-Jun-2026		2015/06/29		PSD					
2 PLACES		± 0.2	± 0	APPR: Saravanakumar Murugesan		08-Jun-2026		2015/06/29		001					
1 PLACE		± 0	± 0	INITIAL REVISION:				2015/06/29		A25					
0 PLACES		± 0	± 0	DRWN: GMENARLY				2015/06/29							
ANGULAR TOL		± 3 °		APPR: KHLIM				2015/06/29							
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER		SHEET NUMBER	
						A3-SIZE		87831		SEE TABLE		GENERAL MARKET		7 OF 14	

DOCUMENT STATUS	Production	RELEASE DATE	08-Jun-2026	04:36:51				
9	8	7	6	5	4	3	2	1

14 TO 50 CIRCUITS



VIEW FOR HEADER WITH CAP



- NOTES:
- MATERIALS:
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK
PIN: 0.50mm SQ PHOSPHOR BRONZE
 - FINISHES: REFER TO PLATING OPTIONS
 - PRODUCT SPECIFICATION: PS-87831-027
 - PACKAGING SPECIFICATION: SEE PACKAGING SPECS TABLE ON SHEET 1
 - MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES
B. MOLEX 2mm MILLIGRID DUAL ROW IDT: 87568 SERIES
C. MOLEX 2mm MILLIGRID DUAL ROW RECEPTACLE: 79107 (GOLD PLATED), 78787 (TIN PLATED)

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: Adding New Part Numbers		molex			
DIMENSION UNITS		SCALE		MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
mm		NTS		PRODUCT CUSTOMER DRAWING			
GENERAL TOLERANCES (UNLESS SPECIFIED)		MM		DOCUMENT NUMBER			
		INCH		SD-87831-0001			
4 PLACES		± 0		PSD			
3 PLACES		± 0		001			
2 PLACES		± 0.2		A25			
1 PLACE		± 0		REVISION			
0 PLACES		± 0		2015/04/15			
ANGULAR TOL		± 3°		2015/06/29			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION		DRAWING		SHEET NUMBER	
		A3-SIZE		87831		9 OF 14	
				MATERIAL NUMBER		CUSTOMER	
				SEE TABLE		GENERAL MARKET	

10	9	8	7	6	5	4	3	2	1											
14 TO 20 CIRCUITS																				
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	ASSY P/N WITHOUT CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION								
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H	
14	87831-1419	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	12.00	14.85	16.65	15.00	8.00	N.A	2.50	3.60±0.20	
	87831-1420	87831-1430	87831-5554	N.A	2															
	87831-1421	87831-5530	87831-5560	N.A	3															
	87831-1436	N.A	N.A	N.A	4															
	87831-1428	N.A	87831-5564	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50		
	87831-1429	N.A	87831-5563	N.A	3															
	87831-1435	N.A	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES									3.50
	87831-1410	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	N.A									
87831-1411	N.A	N.A	N.A	3																
16	87831-1619	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	14.00	16.85	18.65	17.00	10.00	N.A	2.50	3.60±0.20	
	87831-1620	N.A	N.A	N.A	2															
	87831-1621	N.A	N.A	N.A	3															
	87831-1636	N.A	N.A	N.A	4															
	87831-1628	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50		
	87831-1629	N.A	87831-5559	N.A	3															
	87831-1635	N.A	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							3.50		
18	87831-1819	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	16.00	18.85	20.65	19.00	12.00	N.A	2.50	3.60±0.20	
	87831-1820	N.A	87831-5566	87831-1830	2															
	87831-1821	N.A	N.A	N.A	3															
	87831-1836	N.A	N.A	N.A	4															
	87831-1828	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50		
	87831-1829	N.A	N.A	N.A	3															
20	87831-2019	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	18.00	20.85	22.65	21.00	14.00	N.A	2.50	3.60±0.20	
	87831-2020	N.A	N.A	87831-2050	2															
	87831-2021	N.A	N.A	N.A	3															
	87831-2036	N.A	N.A	N.A	4															
	87831-2028	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50		
	87831-2029	N.A	N.A	N.A	3															
	87831-2035	N.A	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							3.50		
	87831-2010	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	N.A							3.50		
	87831-2011	N.A	87831-2041	87831-2051	3															
PLATING OPTIONS:																				
1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.																				
2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.																				
3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.																				
4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.																				
DOCUMENT STATUS		Production	RELEASE DATE		08-Jun-2026	04:36:51														
		9	8		7		6		5		4		3		2		1			
FORMAT: Molex-aga-master-ib-prod-A3 REVISION: E1 DATE: 2021/05/01		9	8		7		6		5		4		3		2		1			

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DIMENSION UNITS

mm

SCALE

NTS

GENERAL TOLERANCES (UNLESS SPECIFIED)

	MM	INCH
4 PLACES	± 0	± 0
3 PLACES	± 0	± 0
2 PLACES	± 0.2	± 0
1 PLACE	± 0	± 0
0 PLACES	± 0	± 0
ANGULAR TOL	± 3 °	

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

CURRENT REV DESC: Adding New Part Numbers

EC NO: CO-000042098

DRWN: Meghraj Boodagatti

CHK'D: Meghraj Boodagatti

APPR: Saravanakumar Murugesan

22-Apr-2026

08-Jun-2026

08-Jun-2026

INITIAL REVISION:

DRWN: GMENARLY

APPR: KHLIM

2015/04/15

2015/06/29

mo

lex

MILLIGRID

2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

PSD

DOC PART

001

REVISION

A25

MATERIAL NUMBER

SEE TABLE

CUSTOMER

GENERAL MARKET

SHEET NUMBER

10 OF 14

	10		9		8		7		6		5		4		3		2		1
22 TO 30 CIRCUITS																			
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	ASSY P/N WITHOUT CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION							
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H
22	87831-2219	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	20.00	22.85	24.65	23.00	16.00	N.A	2.50	3.60±0.20
	87831-2220	N.A	N.A	N.A	2														
	87831-2221	N.A	N.A	N.A	3														
	87831-2236	N.A	N.A	N.A	4														
	87831-2228	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-2229	N.A	N.A	N.A	3														
24	87831-2419	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	22.00	24.85	26.65	25.00	18.00	N.A	2.50	3.60±0.20
	87831-2420	N.A	N.A	87831-7420	2														
	87831-2421	N.A	N.A	N.A	3														
	87831-2436	N.A	N.A	N.A	4														
	87831-2428	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-2429	N.A	N.A	N.A	3													3.50	
	87831-2435	N.A	N.A	N.A	3													2.80	
	87831-2445	N.A	N.A	N.A	3													3.50	
	87831-2410	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	N.A								
26	87831-2619	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	24.00	26.85	28.65	27.00	20.00	N.A	2.50	3.60±0.20
	87831-2620	87831-2630	87831-5555	N.A	2														
	87831-2621	N.A	N.A	N.A	3														
	87831-2636	N.A	N.A	N.A	4														
	87831-2628	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-2629	N.A	N.A	N.A	3														
	87831-2610	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	N.A							3.50	
28	87831-2819	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	26.00	28.85	30.65	29.00	22.00	N.A	2.50	3.60±0.20
	87831-2820	N.A	N.A	N.A	2														
	87831-2821	N.A	N.A	N.A	3														
	87831-2836	N.A	N.A	N.A	4														
	87831-2828	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-2829	N.A	N.A	N.A	3														
30	87831-3019	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	28.00	30.85	32.65	31.00	24.00	N.A	2.50	3.60±0.20
	87831-3020	N.A	N.A	N.A	2														
	87831-3021	N.A	N.A	N.A	3														
	87831-3036	N.A	N.A	N.A	4														
	87831-3028	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-3029	N.A	N.A	N.A	3													3.50	
	87831-3035	N.A	N.A	N.A	3													1.60	
	87831-3037	N.A	N.A	N.A	3													3.50	
	87831-3010	87831-3030	87831-3050	N.A	2	YES	N.A	YES	N.A	YES	N.A								
PLATING OPTIONS: 1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL. 2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL. 3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL. 4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.																			
DOCUMENT STATUS		Production	RELEASE DATE	08-Jun-2026	04:36:51	7		6		5		4		3		2		1	
FORMAT: Msl-Rpg-master-4b-prod-A3 REVISION: E1 DATE: 20210501		9		8		7		6		5		4		3		2		1	

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10		9		8		7		6		5		4		3		2		1	
42 TO 50 CIRCUITS																			
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	ASSY P/N WITHOUT CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATI ON	PEG	DIMENSION							
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H
42	87831-4219	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	40.00	42.85	44.65	43.00	36.00	N.A	2.50	3.60±0.20
	87831-4220	N.A	N.A	87831-4230	2														
	87831-4221	N.A	N.A	N.A	3														
	87831-4236	N.A	N.A	N.A	4														
	87831-4228	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-4229	N.A	N.A	N.A	3														
44	87831-4419	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	42.00	44.85	46.65	45.00	38.00	N.A	2.50	3.60±0.20
	87831-4420	N.A	N.A	N.A	2														
	87831-4421	N.A	N.A	N.A	3														
	87831-4436	N.A	N.A	N.A	4														
	87831-4428	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-4429	N.A	N.A	N.A	3														
	87831-4435	N.A	N.A	N.A	3														
46	87831-4619	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	44.00	46.85	48.65	47.00	40.00	N.A	2.50	3.60±0.20
	87831-4620	N.A	N.A	N.A	2														
	87831-4621	N.A	N.A	N.A	3														
	87831-4636	N.A	N.A	N.A	4														
	87831-4628	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-4629	N.A	N.A	N.A	3														
48	87831-4819	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	46.00	48.85	50.65	49.00	42.00	N.A	2.50	3.60±0.20
	87831-4820	N.A	N.A	N.A	2														
	87831-4821	N.A	N.A	N.A	3														
	87831-4836	N.A	N.A	N.A	4														
	87831-4828	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-4829	N.A	N.A	N.A	3														
50	87831-5019	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	48.00	50.85	52.65	51.00	44.00	N.A	2.50	3.60±0.20
	87831-5020	N.A	N.A	N.A	2														
	87831-5021	N.A	N.A	N.A	3														
	87831-5036	N.A	N.A	N.A	4														
	87831-5028	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-5029	N.A	N.A	N.A	3														
	87831-5035	N.A	N.A	N.A	3														
PLATING OPTIONS:																			
1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.																			
2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.																			
3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.																			
4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.																			
DOCUMENT STATUS		Production	RELEASE DATE		08-Jun-2026	04:36:51													
		9		8		7		6		5		4		3		2		1	

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

DIMENSION UNITS

mm

SCALE

NTS

GENERAL TOLERANCES
(UNLESS SPECIFIED)

	MM	INCH
4 PLACES	± 0	± 0
3 PLACES	± 0	± 0
2 PLACES	± 0.2	± 0
1 PLACE	± 0	± 0
0 PLACES	± 0	± 0
ANGULAR TOL ± 3 °		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

CURRENT REV DESC: Adding New Part Numbers

EC NO: CO-000042098

DRWN: Meghraj Boodagatti

CHK'D: Meghraj Boodagatti

APPR: Saravanakumar Murugesan

22-Apr-2026

08-Jun-2026

08-Jun-2026

INITIAL REVISION:

DRWN: GMENARLY

APPR: KHLIM

2015/04/15

2015/06/29

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

PSD

DOC PART

001

REVISION

A25

MILLIGRID

2MM PITCH, THROUGH HOLE VERTICAL SHROUDED
HEADER

DRAWING

A3-SIZE

SERIES

87831

MATERIAL NUMBER

SEE TABLE

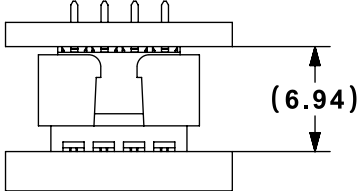
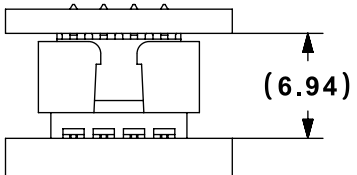
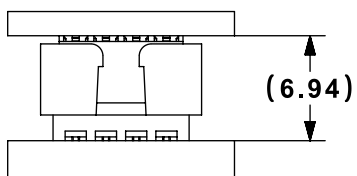
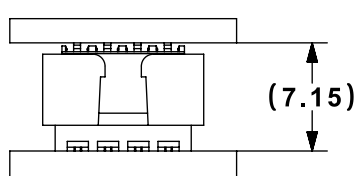
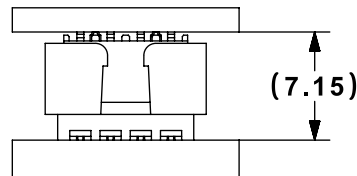
CUSTOMER

GENERAL MARKET

SHEET NUMBER

13 OF 14

BOARD TO BOARD (BTB) DISTANCE

HEADER	MATES WITH (RECEPTACLE)	BTB DIST.	PICTORIAL VIEW
87831	79107	6.94	
	78787	6.94	
	79108	6.94	
	79109	7.15	
	78788	7.15	

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION												
DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				molex				
mm		NTS										
GENERAL TOLERANCES (UNLESS SPECIFIED)								MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER				
		MM	INCH	EC NO: CO-000042098 DRWN: Meghraj Boodagatti 22-Apr-2026 CHK'D: Meghraj Boodagatti 08-Jun-2026 APPR: Saravanakumar Murugesan 08-Jun-2026 INITIAL REVISION: DRWN: DRWN BY XXXX/XX/XX APPR: APPR BY XXXX/XX/XX				DOCUMENT NUMBER		DOC TYPE	DOC PART	REVISION
4 PLACES	± 0	± 0						SD-87831-0001		PSD	001	A25
3 PLACES	± 0	± 0										
2 PLACES	± 0.2	± 0										
1 PLACE	± 0	± 0										
0 PLACES	± 0	± 0										
ANGULAR TOL ± 3°				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION 		DRAWING A3-SIZE		SERIES 87831		
						MATERIAL NUMBER		CUSTOMER GENERAL MARKET		SHEET NUMBER 14 OF 14		