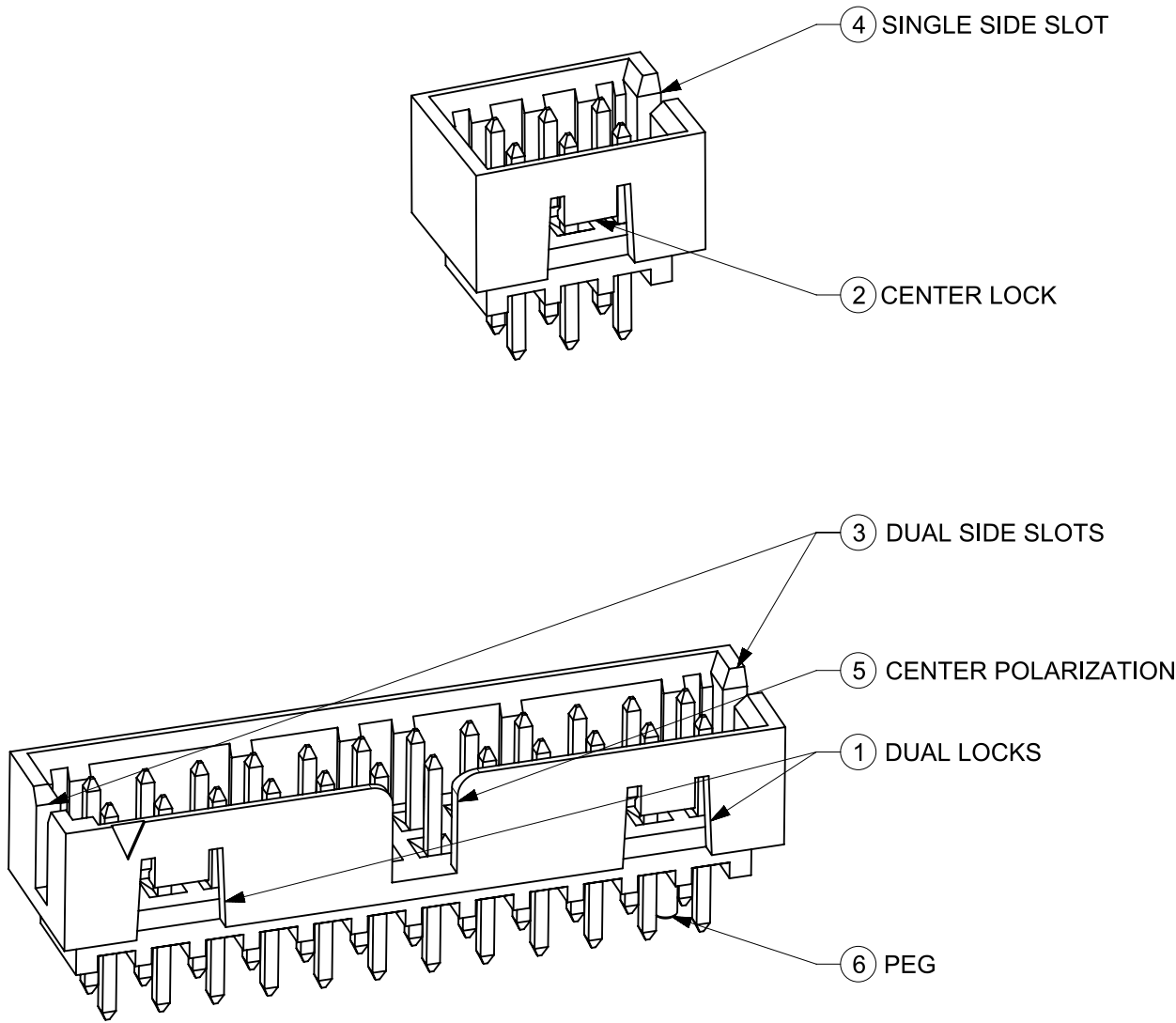


FEATURES SELECTION GUIDE



FEATURES							
CIRCUIT SIZE	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	

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		

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

molex

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

1 OF 14

DRAWING

A3-SIZE

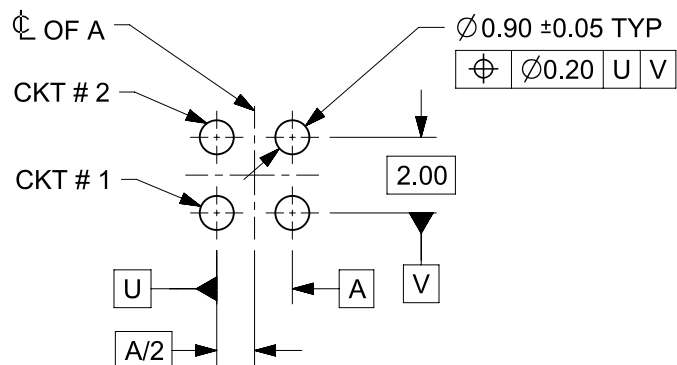
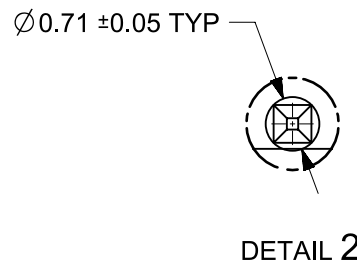
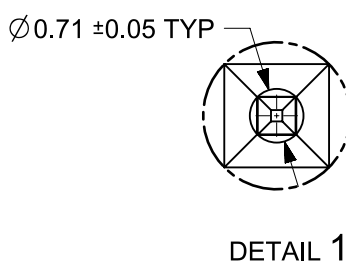
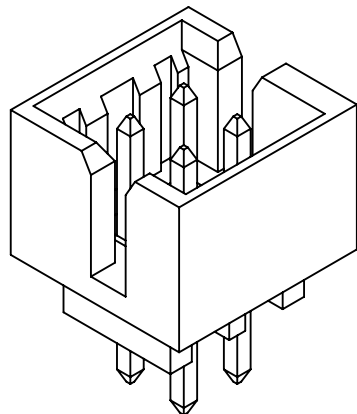
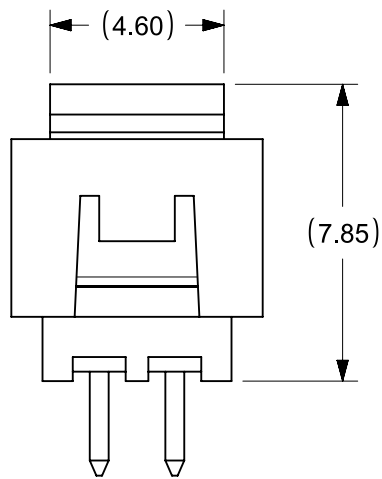
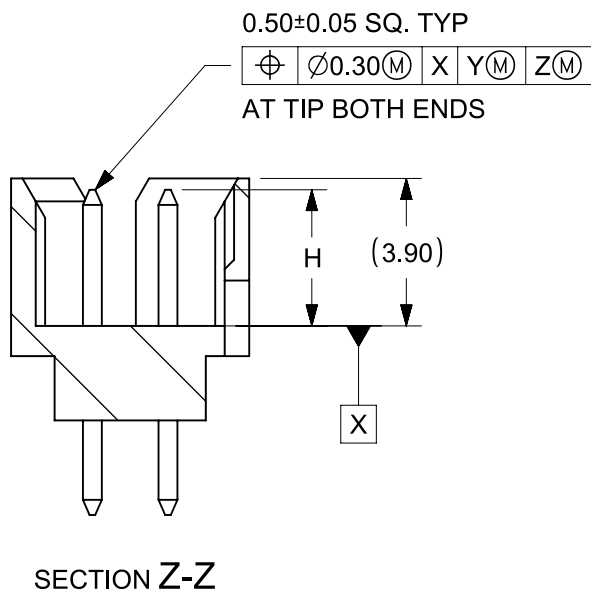
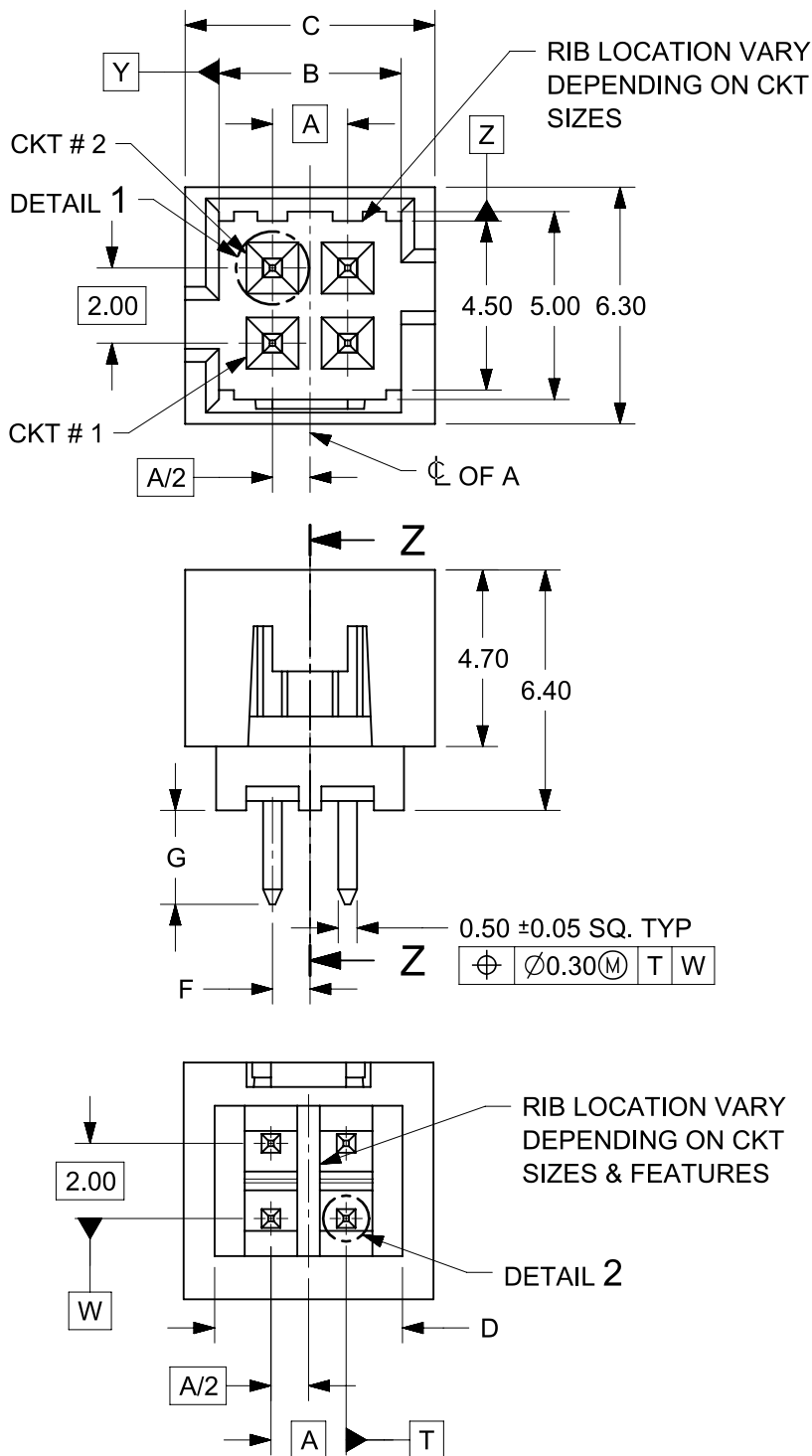
SERIES

87831

DATE: 2021/05/01

1

4 CIRCUITS



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						
		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		2 OF 14	

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									2.50
	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

MATERIAL NUMBER

SEE TABLE

CUSTOMER

GENERAL MARKET

SHEET NUMBER

3 OF 14

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

2MM PITCH, THROUGH HOLE VERTICAL SHROUDED
HEADER

DOCUMENT STATUS

Production

RELEASE DATE

08-Jun-2026

04:36:51

9

8

7

6

5

4

3

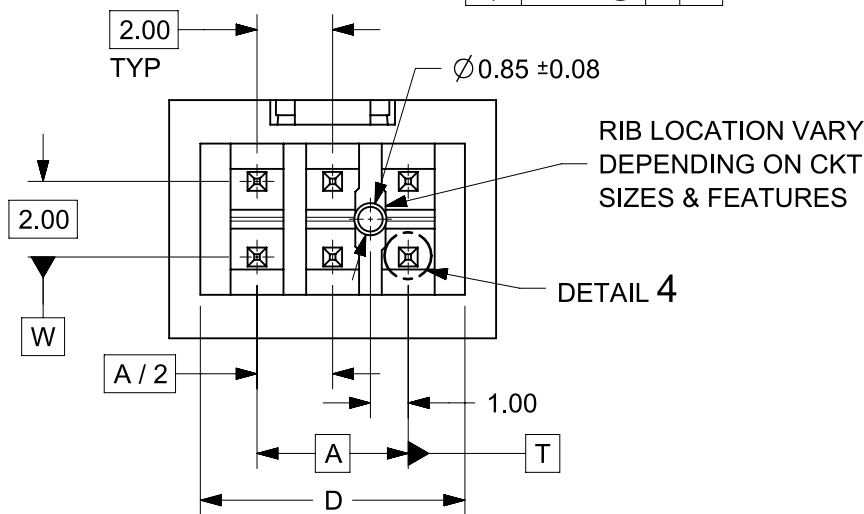
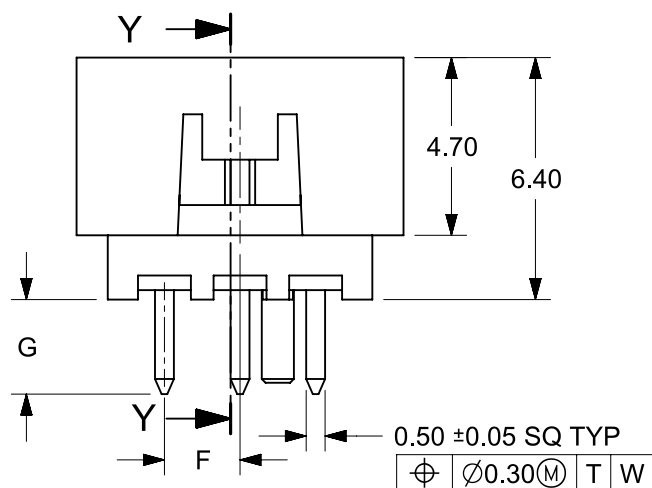
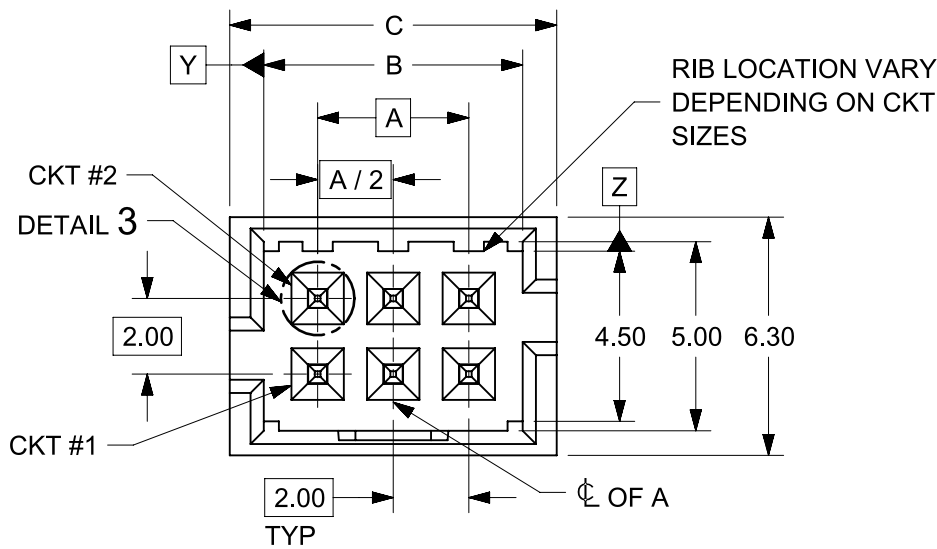
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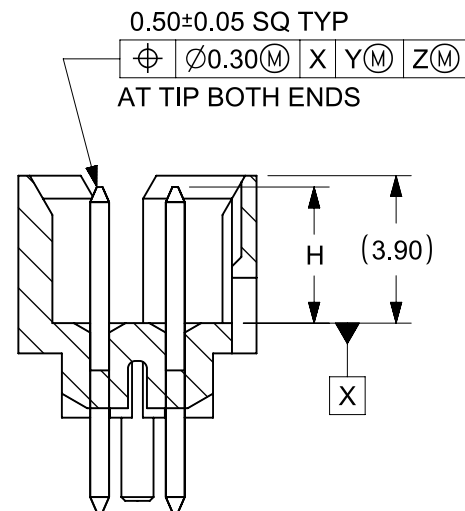
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REVISION: E1

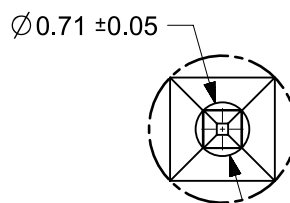
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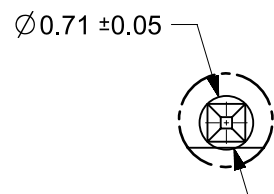
6 CIRCUITS



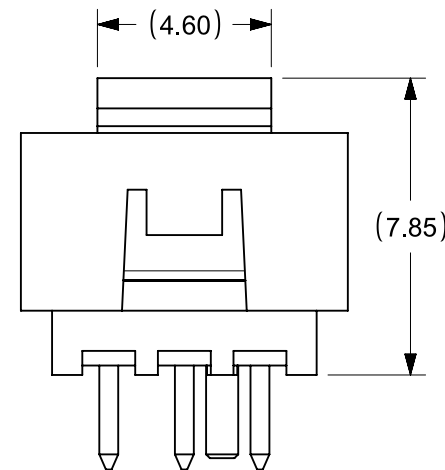
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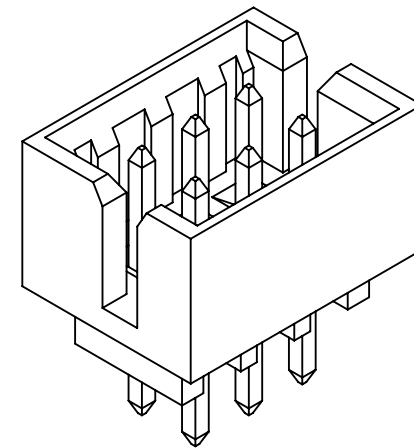
DETAIL 3



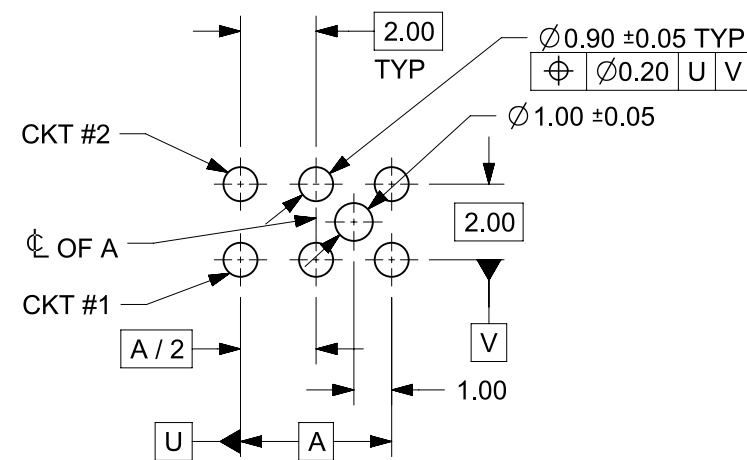
DETAIL 4



VIEW FOR
HEADER WITH CAP



VIEW FOR HEADER WITH
ONLY DUAL SLOTS



RECOMMENDED PCB LAYOUT

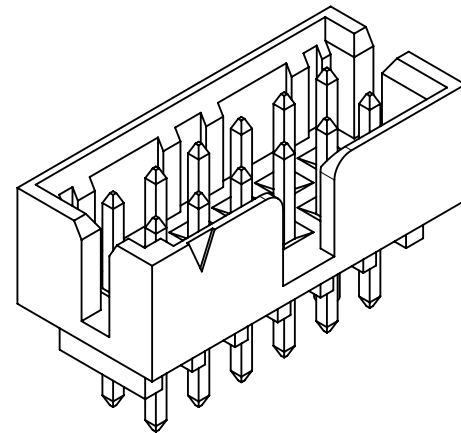
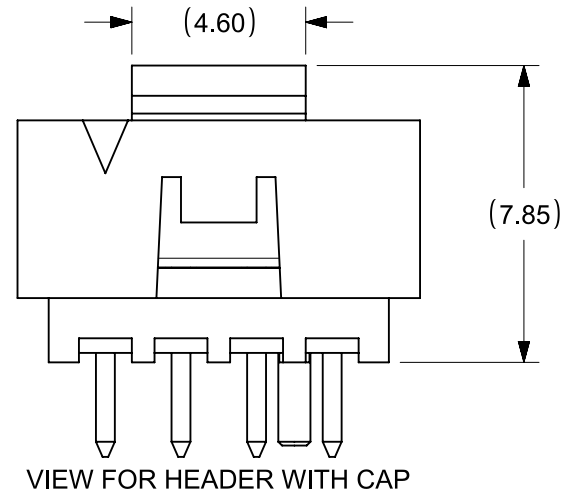
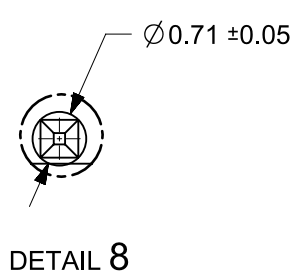
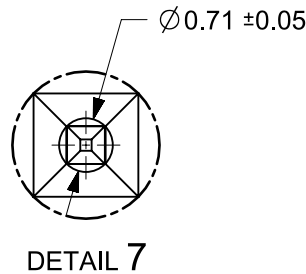
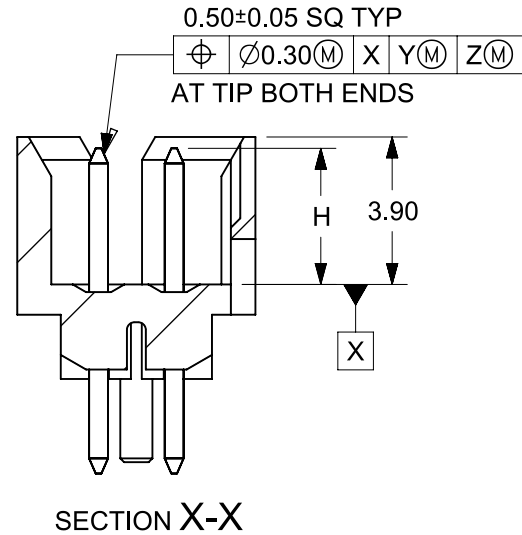
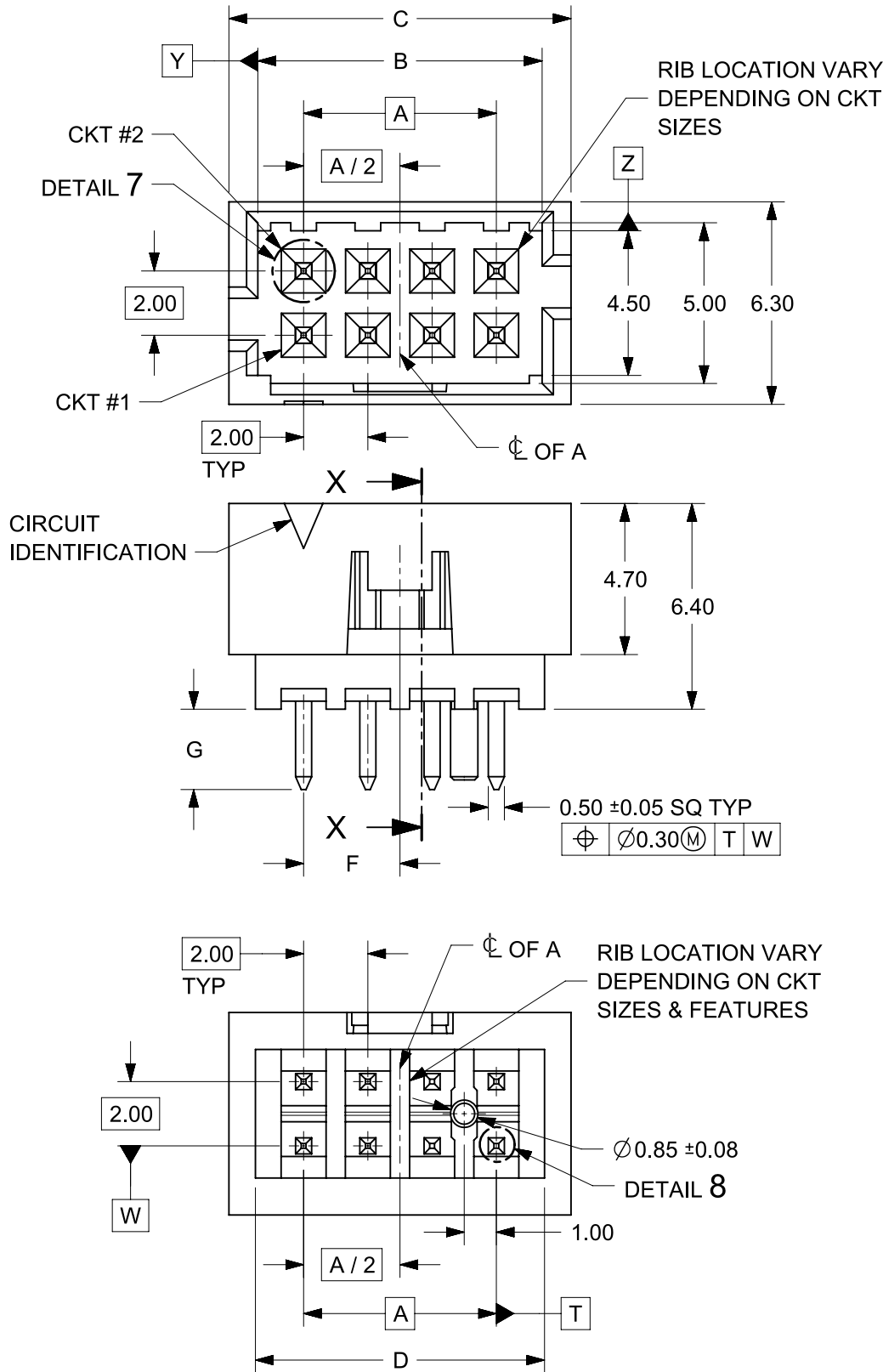
NOTES:

- 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)

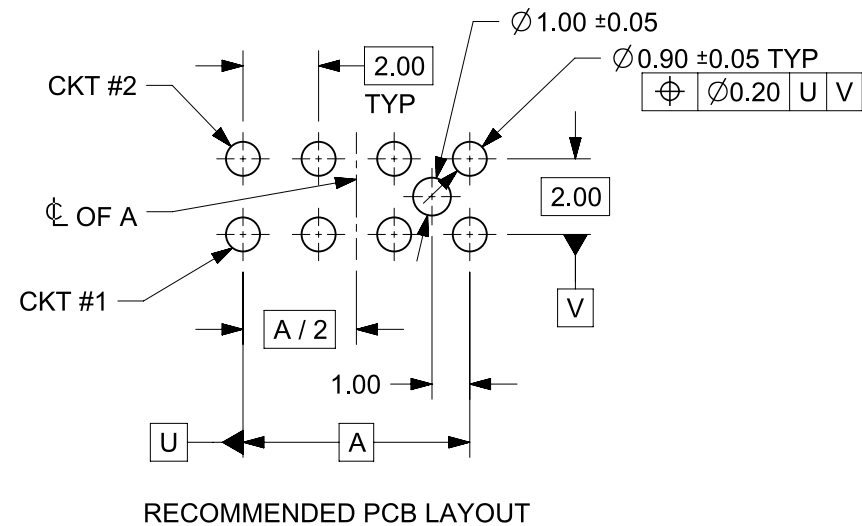
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION										
DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				molex		
mm		NTS								
GENERAL TOLERANCES (UNLESS SPECIFIED)				EC NO: CO-000042098 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				
	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 °				INITIAL REVISION: DRWN: GMENARLY 2015/04/15 APPR: KHLIM 2015/06/29		DOCUMENT NUMBER		DOC TYPE	DOC PART	REVISION
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS						SD-87831-0001		PSD	001	A25
				THIRD ANGLE PROJECTION		DRAWING	SERIES	MATERIAL NUMBER		CUSTOMER
		A3-SIZE		87831		SEE TABLE		GENERAL MARKET		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	87831-0628	N.A	N.A	2	N.A	N.A	YES	N.A	N.A	YES	N.A						N.A	6.85		8.65	7.00	N.A	N.A	2.50									
	87831-0629	N.A	N.A	3																													
	87831-0641	N.A	87831-0647	2																					N.A	YES	YES	N.A	N.A	N.A	N.A	2.00	2.50
	87831-0642	N.A	87831-5552	3																													
C	87831-5241	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A	N.A						N.A	6.85		8.65	7.00	N.A	2.00	2.50									
	87831-5242	N.A	N.A	3																													
	87831-6241	N.A	N.A	2																					N.A	YES	YES	N.A	N.A	N.A	N.A	2.00	2.80
	87831-6242	N.A	N.A	3																													
B	87831-0643	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A	N.A						N.A	6.85	8.65	7.00	N.A	2.00	2.50										
	87831-0644	N.A	N.A	3																													
	87831-0645	N.A	N.A	2																				N.A	YES	N.A	YES	N.A	N.A	N.A	2.00	2.50	
	87831-0646	N.A	N.A	3																													
A	87831-0632	N.A	N.A	2	N.A	YES	YES	N.A	N.A	YES	N.A						N.A	6.85	8.65	7.00	N.A	2.00	2.50										
	87831-5119	N.A	N.A	1																													
	87831-5121	N.A	N.A	3																				N.A	N.A	YES	N.A	YES	N.A	N.A	2.00	2.50	
	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																							
DOCUMENT STATUS Production RELEASE DATE 08-Jun-2026 04:36:51										mm NTS							CURRENT REV DESC: Adding New Part Numbers				molex												
										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 INITIAL REVISION: DRWN: GMENARLY 2015/04/15 APPR: KHLIM 2015/06/29				MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER																	
										MM INCH						PRODUCT CUSTOMER DRAWING																	
4 PLACES ± 0 ± 0										DOCUMENT NUMBER						DOC TYPE		DOC PART		REVISION													
3 PLACES ± 0 ± 0										SD-87831-0001						PSD		001		A25													
2 PLACES ± 0.2 ± 0										MATERIAL NUMBER						CUSTOMER				SHEET NUMBER													
1 PLACE ± 0 ± 0										SEE TABLE						GENERAL MARKET				5 OF 14													
0 PLACES ± 0 ± 0										THIRD ANGLE PROJECTION		DRAWING		SERIES																			
ANGULAR TOL ± 3 °										A3-SIZE		87831																					
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS										A3-SIZE		87831																					
FORMAT: Molex-aga-master-ib-prod-A3 REVISION: E1 DATE: 2021/05/01										9		8		7		6		5		4		3		2		1							

8 TO 12 CIRCUITS



VIEW FOR HEADER WITH CENTER POLARIZATION AND DUAL SIDE SLOTS



- 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°							
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				EC NO: CO-000042098		22-Apr-2026			
				DRWN: Meghraj Boodagatti		08-Jun-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			
				A3-SIZE		87831			
				MATERIAL NUMBER		CUSTOMER			
				SEE TABLE		GENERAL MARKET			
						SHEET NUMBER			
						6 OF 14			

10	9	8	7	6	5	4	3	2	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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	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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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	87831-0841	N.A	87831-5551	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	87831-0842	N.A	N.A	3	N.A	YES	YES	N.A	N.A	YES												3.50																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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	87831-0843	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A						2.50																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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10 TO 12 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		#####	PEG	DIMENSION																																																																													
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H																																																																						
10	87831-1019	N.A	N.A		1	N.A	N.A	YES	N.A	YES	N.A	8.00	10.85	12.65	11.00	N.A	N.A	2.50	3.60±0.20																																																																						
	87831-1020	N.A	87831-1070		2																																																																																				
	87831-1021	N.A	87831-5562		3																																																																																				
	87831-1036	N.A	N.A		4																																																																																				
	87831-1010	87831-1030	87831-5561		2	N.A	N.A	YES	N.A	YES	N.A							4.00		2.50																																																																					
	87831-1011	N.A	N.A		3																																																																																				
	87831-1028	N.A	N.A		2	N.A	N.A	YES	N.A	YES	YES										2.50																																																																				
	87831-1029	N.A	87831-5557		3																																																																																				
	87831-1035	N.A	N.A		3	N.A	N.A	YES	N.A	YES	YES						2.50																																																																								
	87831-1041	N.A	N.A		2																																																																																				
	87831-1042	N.A	87831-5553		3	N.A	YES	YES	N.A	N.A	YES							2.50																																																																							
	87831-1032	N.A	N.A		2																																																																																				
	87831-1043	N.A	N.A		2	N.A	YES	N.A	YES	N.A	N.A						2.50																																																																								
	87831-1044	N.A	N.A		3																																																																																				
	87831-1045	N.A	N.A		2	N.A	YES	N.A	YES	N.A	YES							2.50																																																																							
	87831-1046	N.A	N.A		3																																																																																				
12	87831-1219	N.A	N.A		1	N.A	N.A	YES	N.A	YES	N.A	10.00	12.85	14.65	13.00	N.A	N.A		2.50	3.60±0.20																																																																					
	87831-1220	N.A	87831-5556		2																																																																																				
	87831-1221	N.A	N.A		3																																																																																				
	87831-1236	N.A	N.A		4																																																																																				
	87831-1228	N.A	N.A		2	N.A	N.A	YES	N.A	YES	YES							5.00	2.50																																																																						
	87831-1229	N.A	87831-5558		3																																																																																				
	87831-1258	N.A	87831-5567		2																																																																																				
	87831-1241	N.A	N.A		2	N.A	YES	YES	N.A	N.A	N.A										2.50																																																																				
	87831-1242	N.A	N.A		3																																																																																				
	87831-1255	87831-1256	N.A		2	N.A	YES	YES	N.A	N.A	N.A						2.50																																																																								
	87831-1232	N.A	N.A		2																																																																																				
	87831-1243	N.A	N.A		2	N.A	YES	N.A	YES	N.A	N.A							2.50																																																																							
	87831-1244	N.A	N.A		3																																																																																				
	87831-1245	N.A	N.A		2	N.A	YES	N.A	YES	N.A	YES						2.50																																																																								
	87831-1246	N.A	N.A		3																																																																																				
	<u>PLATING OPTIONS:</u>																																																																																								
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 Boodagatti22-Apr-2026

CHK'D: Meghraj Boodagatti08-Jun-2026

APPR: Saravanakumar Murugesan08-Jun-2026

INITIAL REVISION:

DRWN: GMENARLY2015/04/15

APPR: KHLIM2015/06/29

THIRD ANGLE PROJECTION

DRAWING

A3-SIZE

SERIES

87831

DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

PSD

DOC PART

001

REVISION

A25

MATERIAL NUMBER

SEE TABLE

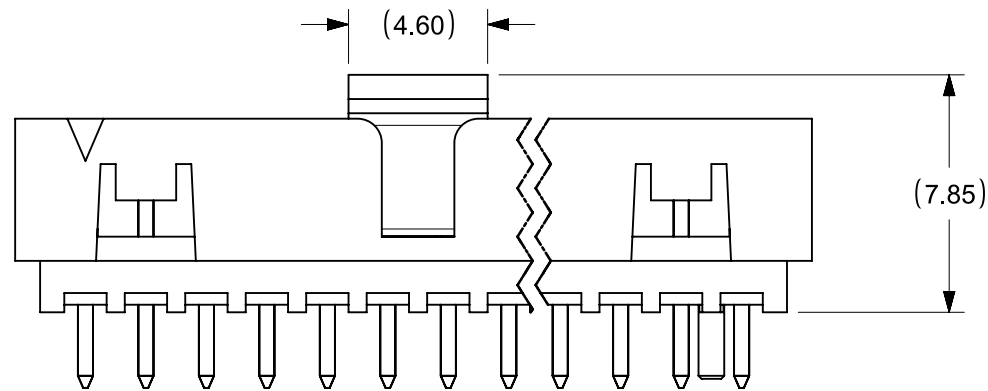
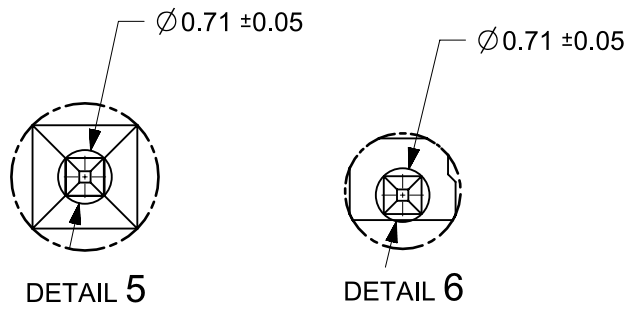
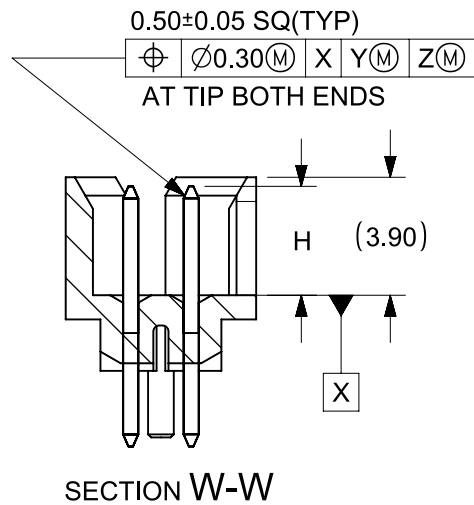
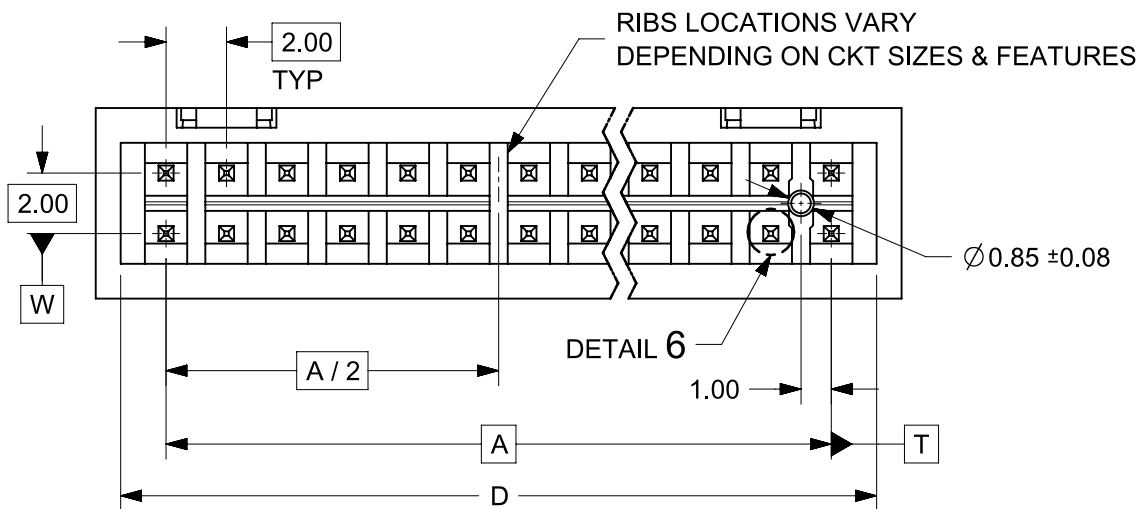
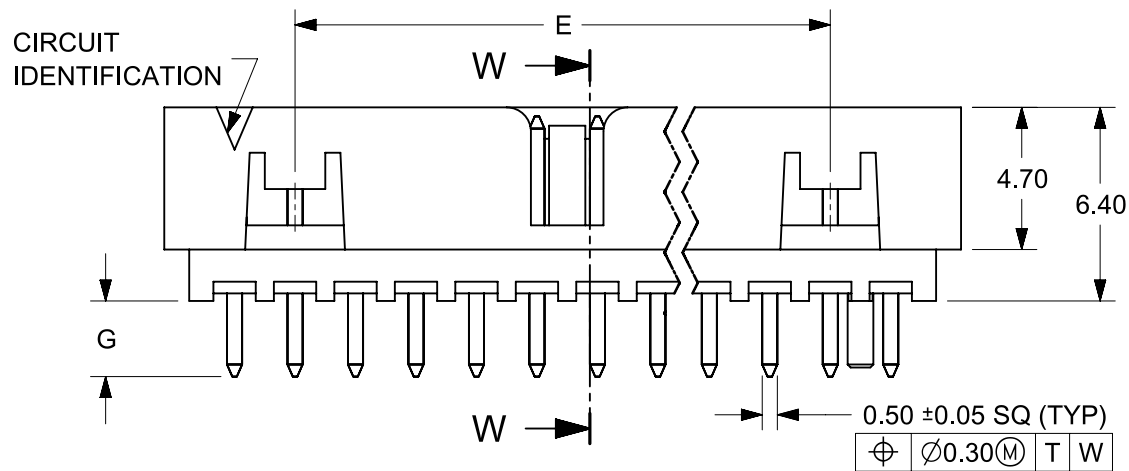
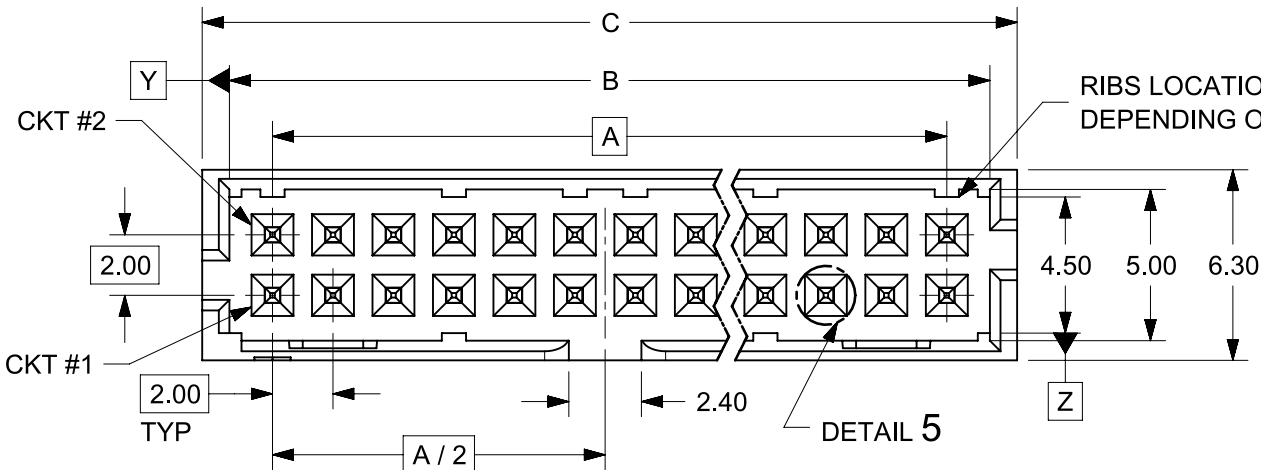
CUSTOMER

GENERAL MARKET

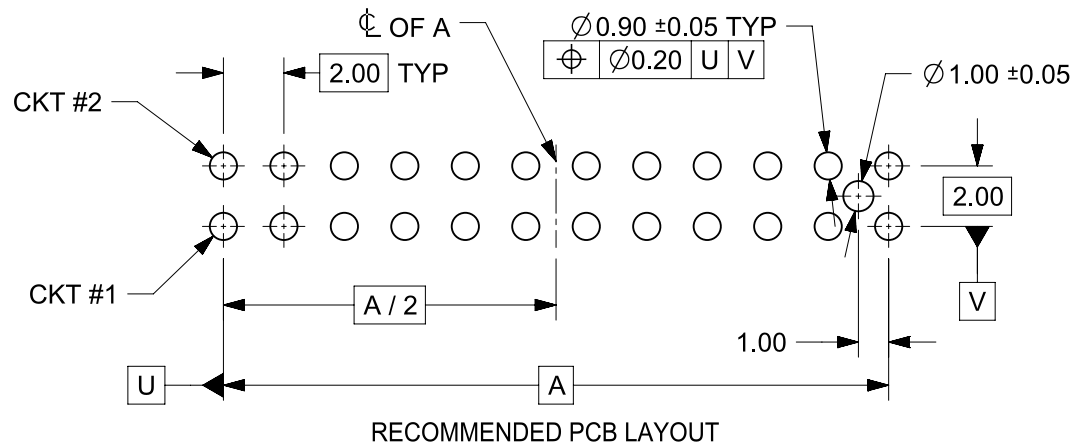
SHEET NUMBER

8 OF 14

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	± 0		EC NO: CO-000042098	22-Apr-2026	DOC TYPE	DOC PART
3 PLACES	± 0	± 0		DRWN: Meghraj Boodagatti	08-Jun-2026	PSD	001
2 PLACES	± 0.2	± 0		CHK'D: Meghraj Boodagatti	08-Jun-2026		A25
1 PLACE	± 0	± 0		APPR: Saravanakumar Murugesan	08-Jun-2026		
0 PLACES	± 0	± 0		INITIAL REVISION:			
ANGULAR TOL		± 3 °		DRWN: GMENARLY	2015/04/15	SHEET NUMBER	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION		DRAWING	SERIES	9 OF 14	
				A3-SIZE	87831		
				MATERIAL NUMBER		CUSTOMER	
				SEE TABLE		GENERAL MARKET	

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																
	87831-2435	N.A	N.A	N.A	3																
	87831-2445	N.A	N.A	N.A	3																
	87831-2410	N.A	N.A	N.A	2													YES		N.A	YES
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
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																
	87831-3035	N.A	N.A	N.A	3																
	87831-3037	N.A	N.A	N.A	3																
	87831-3010	87831-3030	87831-3050	N.A	2													YES		N.A	YES
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																
FORMAT: Mxl-Apgs-master-ib-prod-A3		9	8	7	6	5	4	3	2	1											
REVISION: E1		9	8	7	6	5	4	3	2	1											
DATE: 2021/05/01		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

THIRD ANGLE PROJECTION

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

molex

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

11 OF 14

A3-SIZE

87831

</

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	YES	N.A	YES	N.A	YES	YES							3.50						
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	YES	N.A	YES	N.A	YES	YES							3.50						
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								

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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

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

MATERIAL NUMBER

SEE TABLE

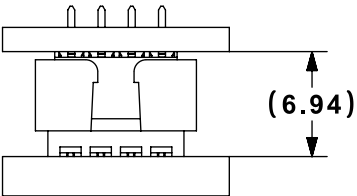
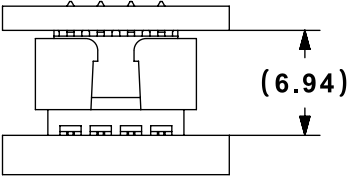
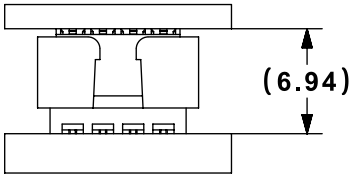
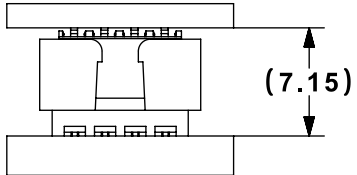
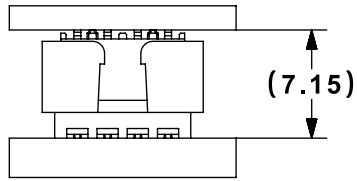
CUSTOMER

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	

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DIMENSION UNITS		SCALE	
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 °	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING
			A3-SIZE

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: DRWN BY
APPR: APPR BY

XXXX/XX/XX
XXXX/XX/XX

DOCUMENT NUMBER
SD-87831-0001

DOC TYPE
PSD

DOC PART
001

REVISION
A25

SHEET NUMBER
14 OF 14

MATERIAL NUMBER

CUSTOMER
GENERAL MARKET

MILLIGRID
2MM PITCH, THROUGH HOLE VERTICAL SHROUDED
HEADER

PRODUCT CUSTOMER DRAWING