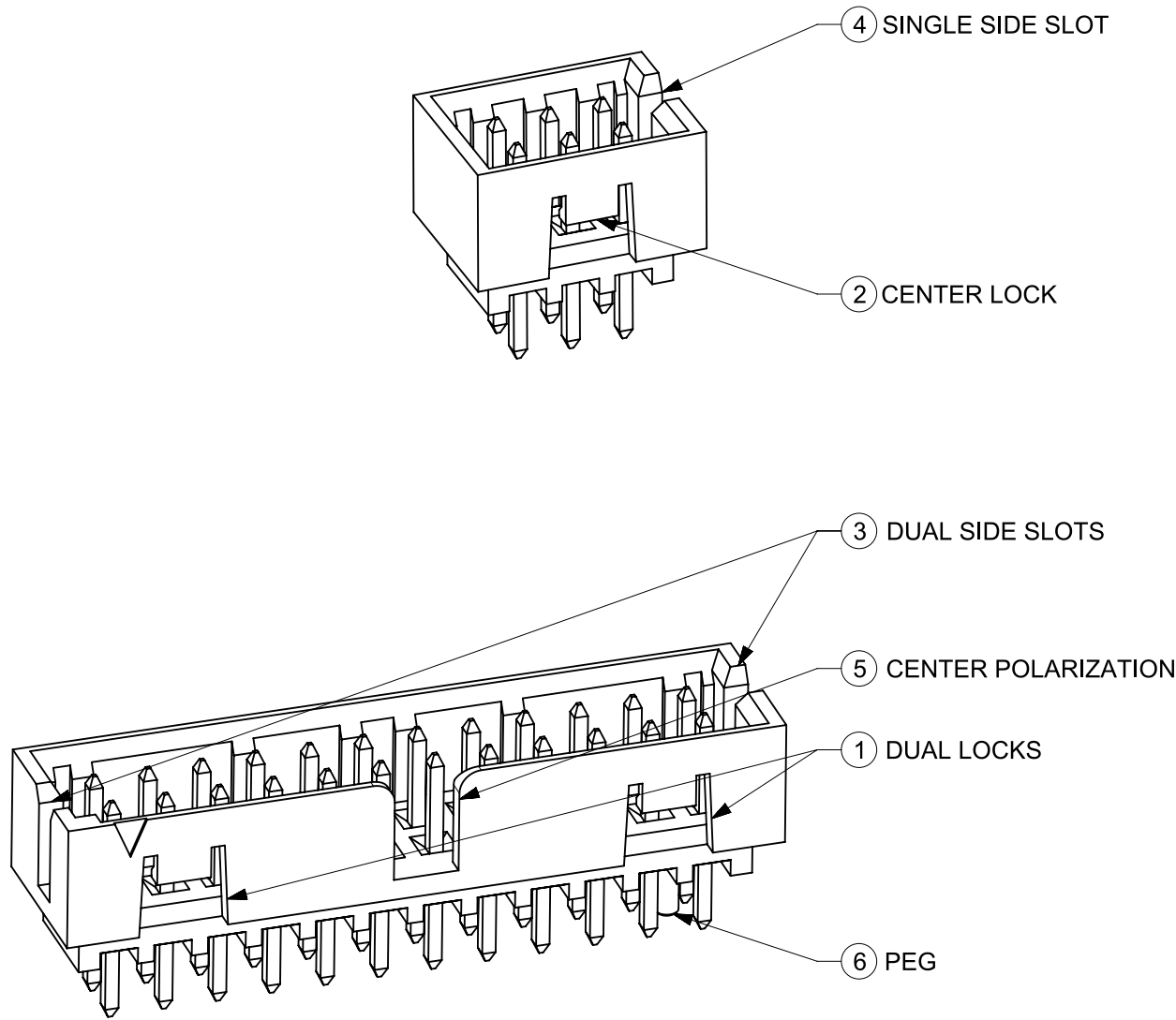


FEATURES SELECTION GUIDE



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		

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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

INITIAL REVISION:

DRWN: GMENARLY

APPR: KHLIM

2015/04/15

2015/06/29

THIRD ANGLE PROJECTION

DRAWING

SERIES

MATERIAL NUMBER

CUSTOMER

SHEET NUMBER

A3-SIZE

87831

SEE TABLE

GENERAL MARKET

1 OF 14

SD-87831-0001

PSD

001

A25

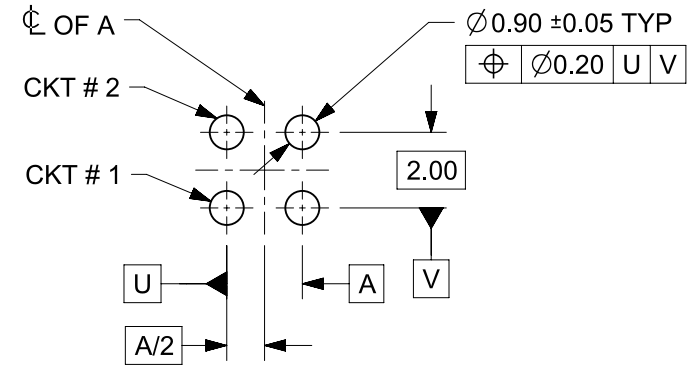
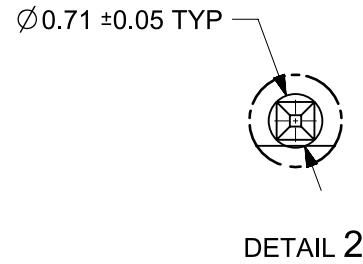
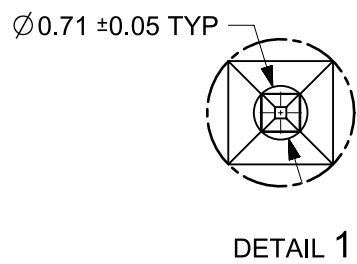
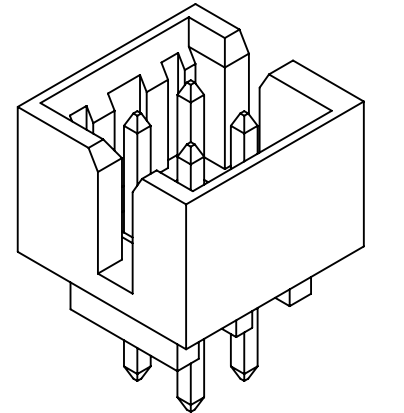
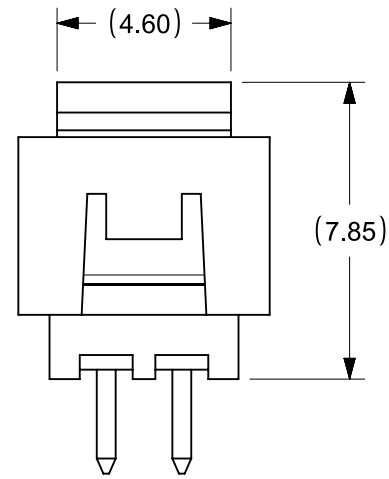
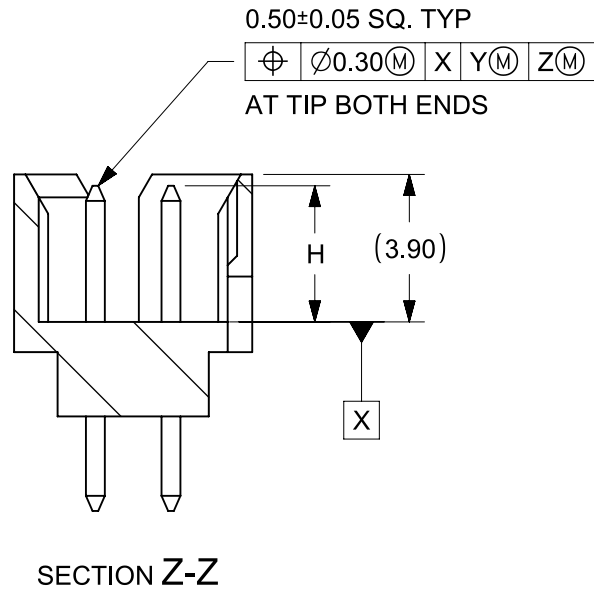
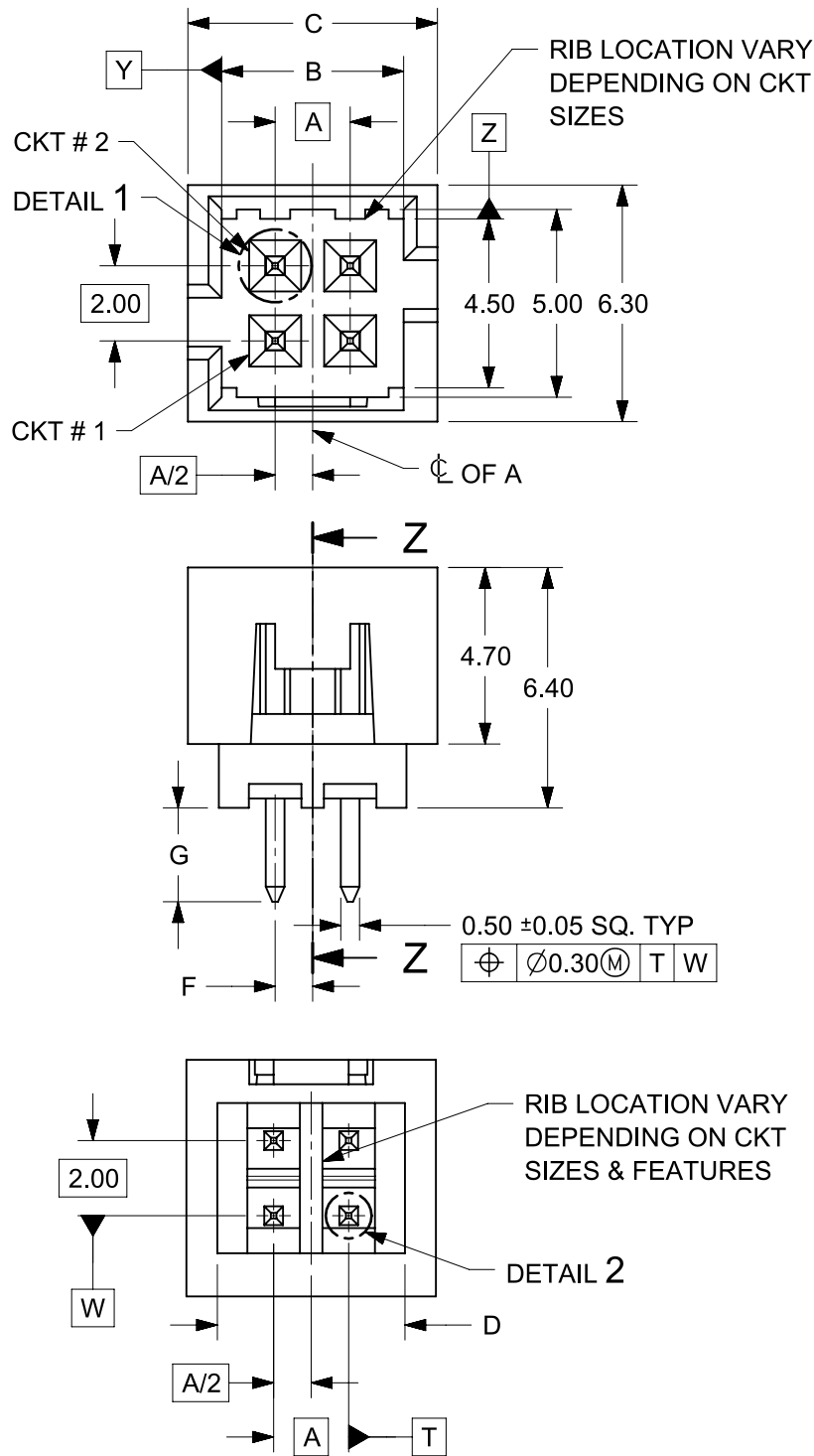
DOCUMENT NUMBER

DOC TYPE

DOC PART

REVISION

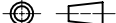
4 CIRCUITS



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)				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													
4 PLACES	± 0	± 0													
3 PLACES	± 0	± 0													
2 PLACES	± 0.2	± 0													
1 PLACE	± 0	± 0													
0 PLACES	± 0	± 0													
ANGULAR TOL ± 3°			THIRD ANGLE PROJECTION 				DOCUMENT NUMBER		DOC TYPE	DOC PART	REVISION				
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS							DRAWING		SERIES		SD-87831-0001		PSD	001	A25
							A3-SIZE		87831						
				MATERIAL NUMBER		CUSTOMER		SHEET NUMBER							
				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

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

3 OF 14

DOCUMENT STATUS

Production

RELEASE DATE

08-Jun-2026

04:36:51

9

8

7

6

5

4

3

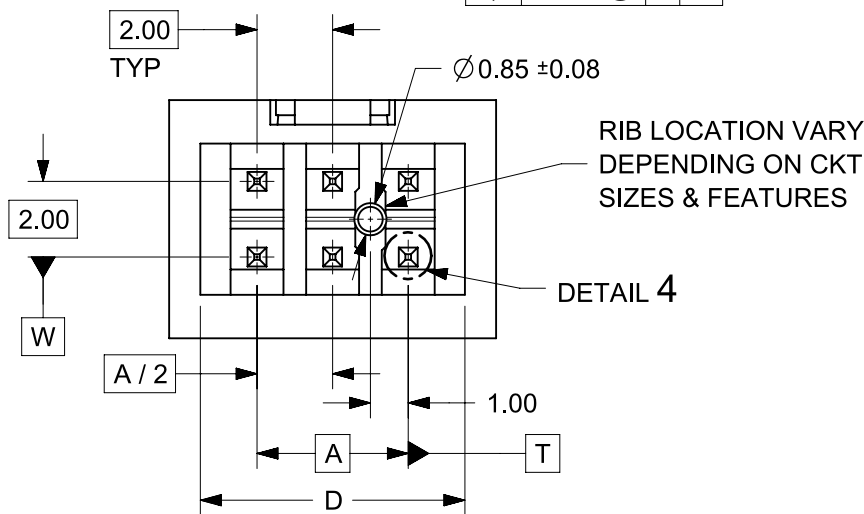
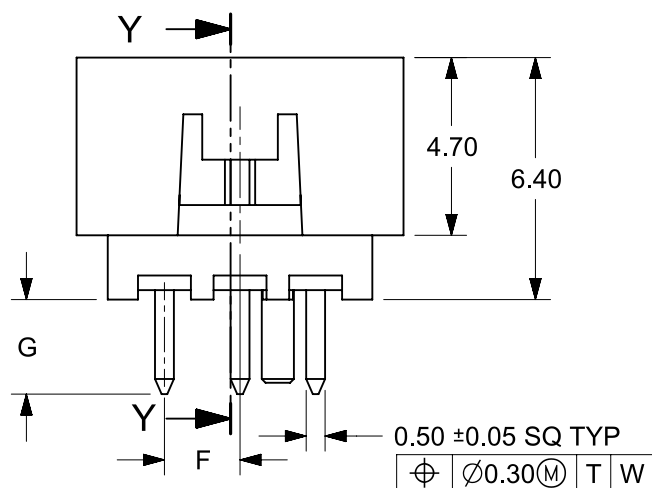
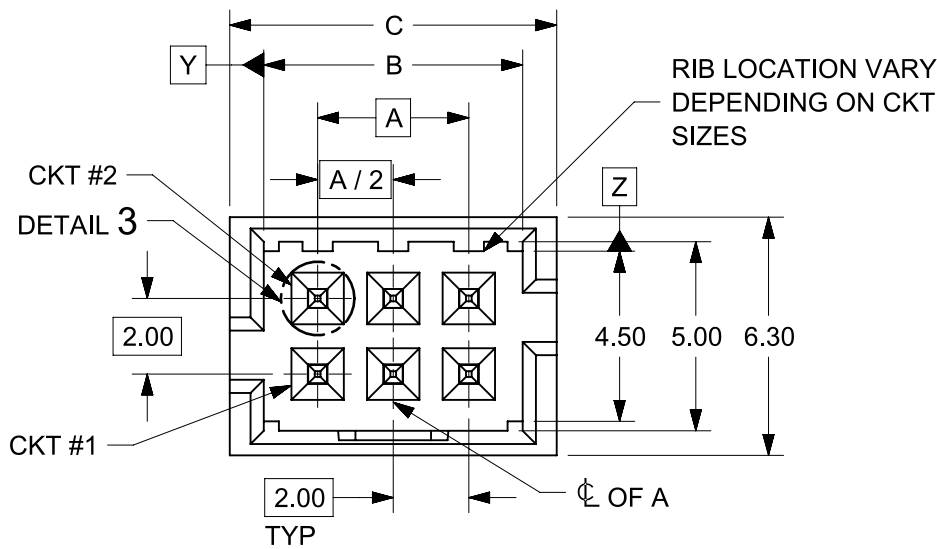
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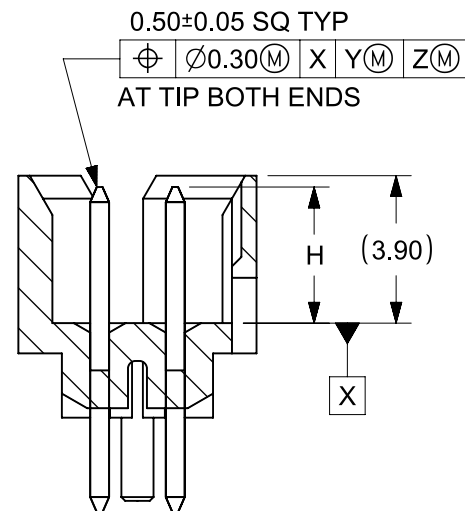
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REVISION: E1

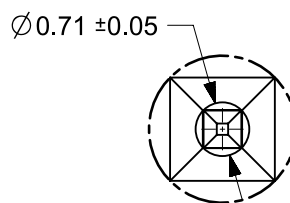
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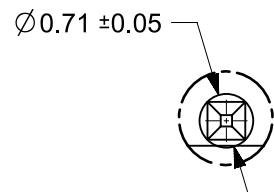
6 CIRCUITS



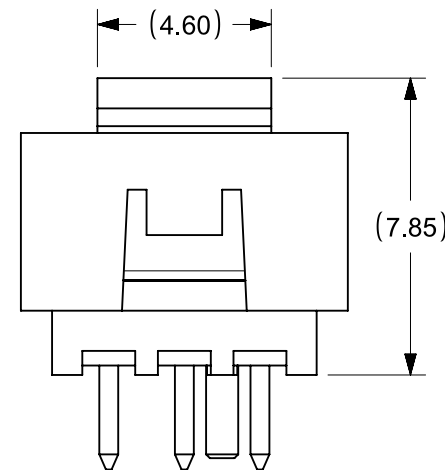
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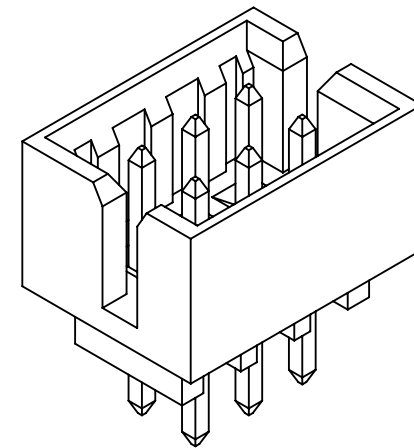
DETAIL 3



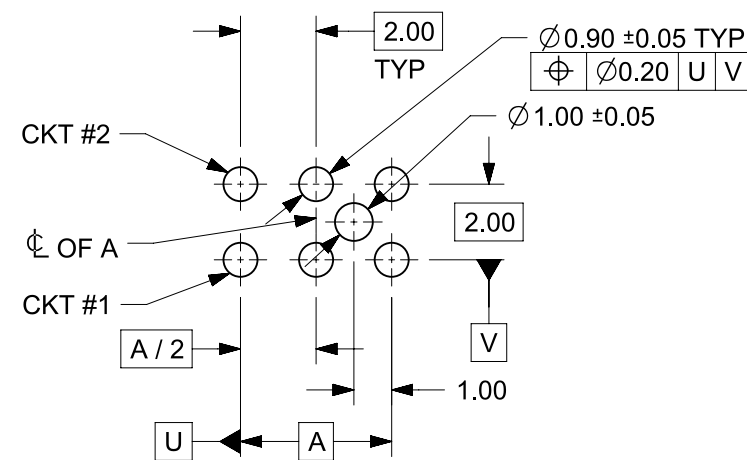
DETAIL 4



VIEW FOR
HEADER WITH CAP



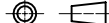
VIEW FOR HEADER WITH
ONLY DUAL SLOTS



RECOMMENDED PCB LAYOUT

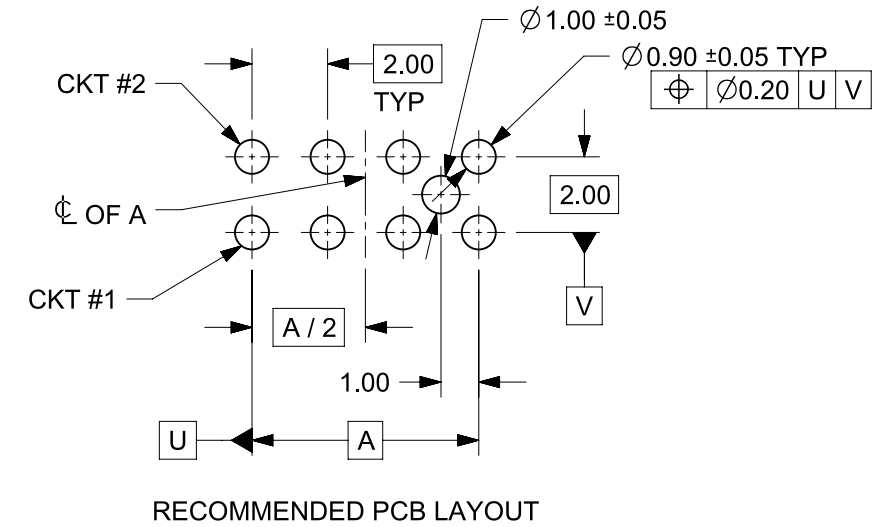
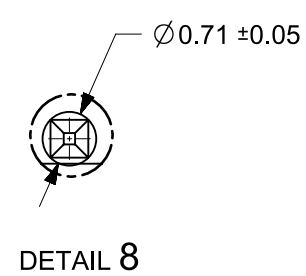
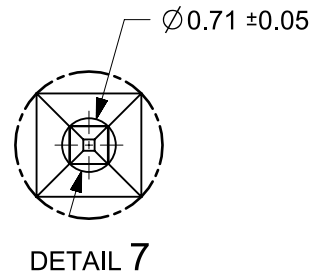
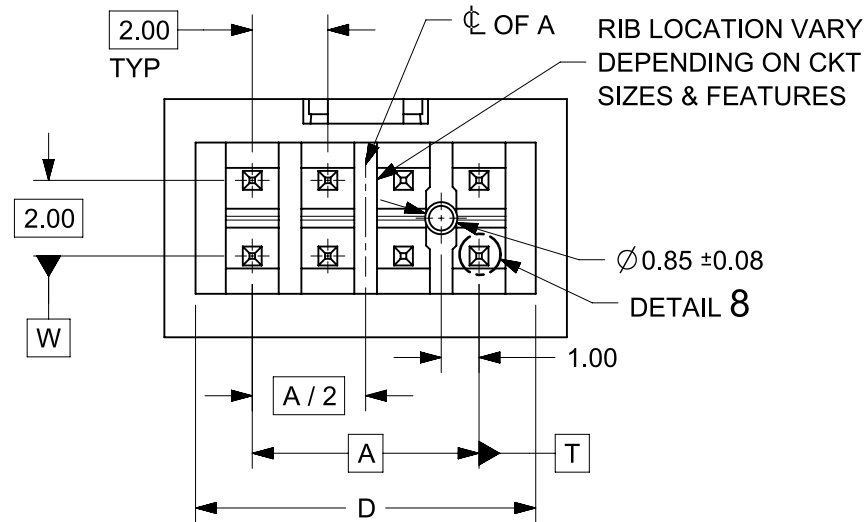
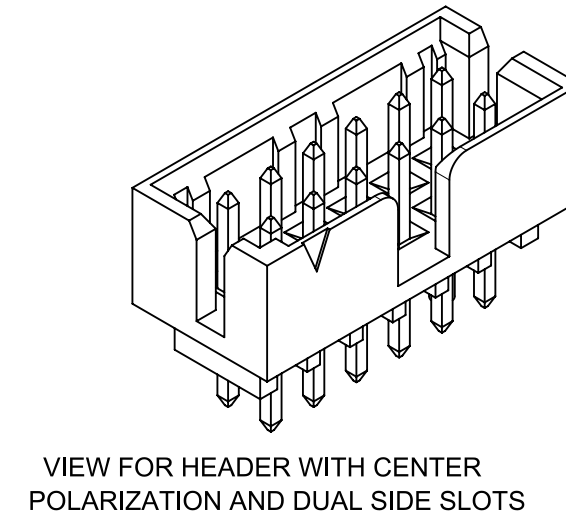
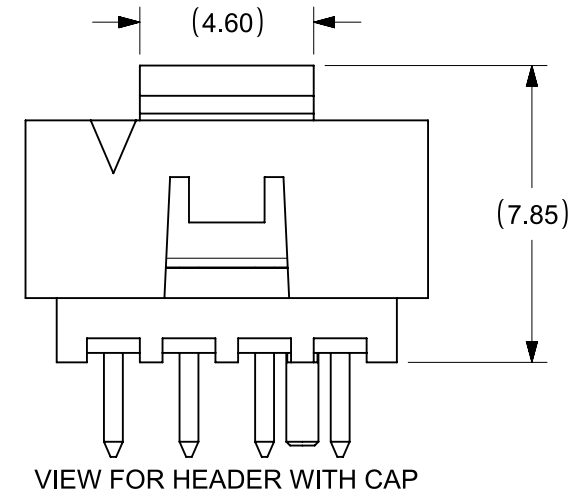
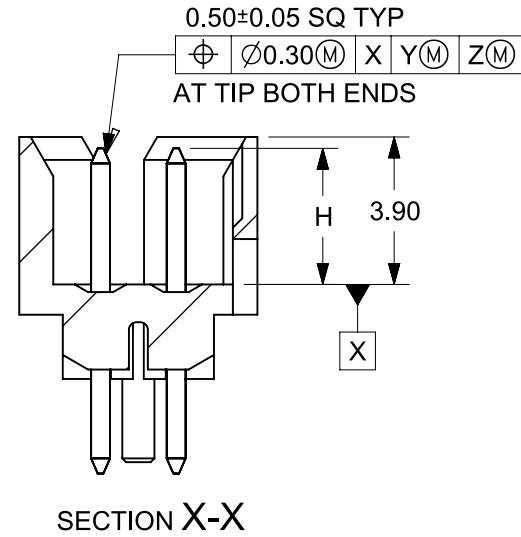
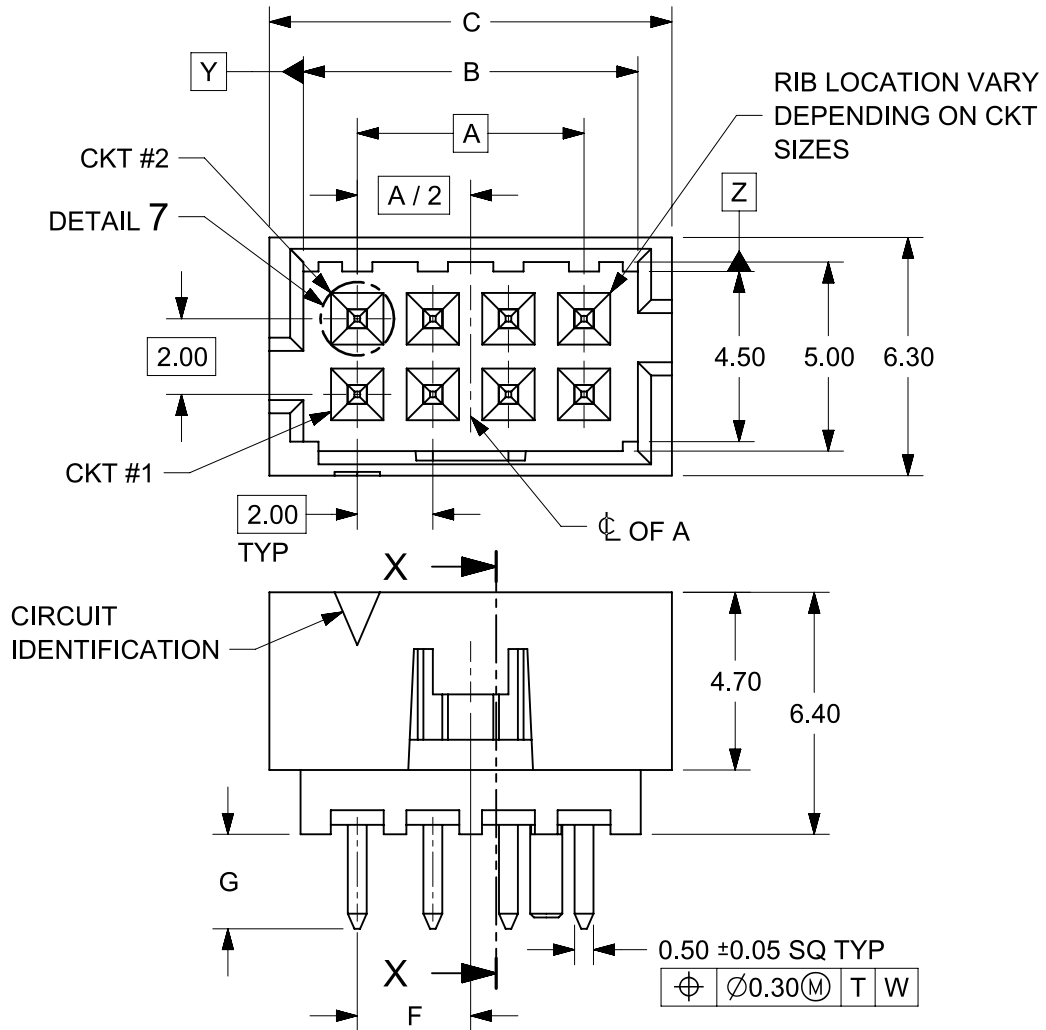
NOTES:

- 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)

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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 °			PRODUCT CUSTOMER DRAWING									
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION 		DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER		SHEET NUMBER	
						A3-SIZE		87831		SEE TABLE		GENERAL MARKET		4 OF 14	

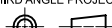
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6 CIRCUITS									
F	E	D	C	B	A				
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	6	6	6	6	6	6	6	6	6
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	6	6	6	6	6	6	6	6	6
	6	6							

8 TO 12 CIRCUITS



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		DOCUMENT NUMBER SD-87831-0001				DOC TYPE		DOC PART		REVISION	
0 PLACES	± 0	± 0						PSD		001		A25	
ANGULAR TOL ± 3°				INITIAL REVISION: DRWN: GMENARLY 2015/04/15 APPR: KHLIM 2015/06/29				SHEET NUMBER 6 OF 14					
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS													
THIRD ANGLE PROJECTION 				DRAWING A3-SIZE		SERIES 87831		MATERIAL NUMBER SEE TABLE		CUSTOMER GENERAL MARKET		SHEET NUMBER 6 OF 14	

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	YES		N.A	YES	N.A	N.A	2.50	
	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								
	87831-5841	N.A	N.A	2													N.A		YES	YES	N.A	N.A	YES	N.A
	87831-5441	N.A	N.A	2																				
	87831-5442	N.A	N.A	3	N.A	YES	YES	N.A	N.A	YES						N.A								
	87831-5541	N.A	N.A	2													N.A		YES	YES	N.A	N.A	YES	N.A
	87831-5542	N.A	N.A	3																				
	87831-5741	N.A	N.A	2	N.A	YES	YES	N.A	N.A	YES						N.A								
	87831-0832	N.A	N.A	2													N.A		YES	YES	N.A	N.A	YES	N.A
	87831-0843	N.A	N.A	2																				
	87831-0844	N.A	N.A	3	N.A	YES	N.A	YES	N.A	N.A														
	87831-0845	N.A	N.A	2												N.A	YES		N.A	YES	N.A	YES	N.A	
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)				PRODUCT CUSTOMER DRAWING										
		MM	INCH	EC NO: CO-000042098				DOCUMENT NUMBER				DOC TYPE	DOC PART	REVISION
4 PLACES	± 0	± 0		DRWN: Meghraj Boodagatti 22-Apr-2026				SD-87831-0001				PSD	001	A25
3 PLACES	± 0	± 0		CHK'D: Meghraj Boodagatti 08-Jun-2026										
2 PLACES	± 0.2	± 0		APPR: Saravanakumar Murugesan 08-Jun-2026										
1 PLACE	± 0	± 0		INITIAL REVISION:										
0 PLACES	± 0	± 0		DRWN: GMENARLY 2015/04/15										
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		

FORMAT: Msl-mpga-master-4b-prod-A3
REVISION: E1
DATE: 20210501

10	9	8	7	6	5	4	3	2	1												
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																
	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					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		CURRENT REV DESC: Adding New Part Numbers				molex										
GENERAL TOLERANCES (UNLESS SPECIFIED)																					
		MM	INCH																		
4 PLACES		± 0	± 0		EC NO: CO-000042098																
3 PLACES		± 0	± 0		DRWN: Meghraj Boodagatti 22-Apr-2026																
2 PLACES		± 0.2	± 0		CHK'D: Meghraj Boodagatti 08-Jun-2026																
1 PLACE		± 0	± 0		APPR: Saravanakumar Murugesan 08-Jun-2026																
0 PLACES		± 0	± 0		INITIAL REVISION:				DOCUMENT NUMBER												
ANGULAR TOL		± 3 °			DRWN: GMENARLY 2015/04/15				SD-87831-0001												
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER		SHEET NUMBER							
				A3-SIZE		87831		SEE TABLE		GENERAL MARKET		8 OF 14									
FORMAT: Molex-aga-master-db-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

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

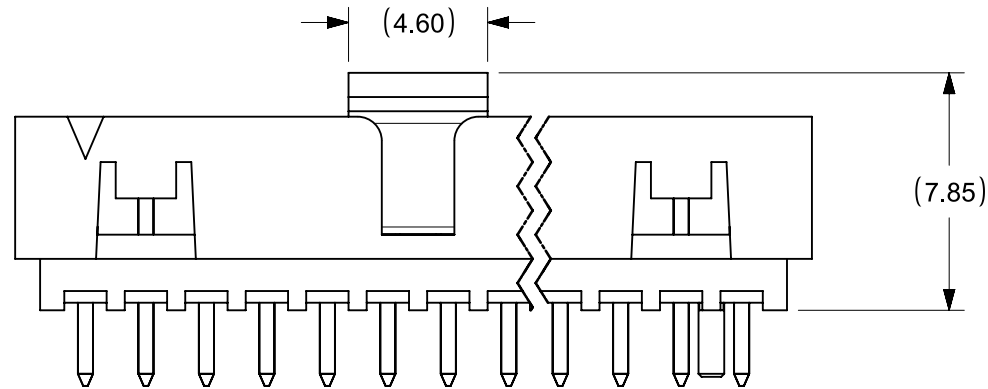
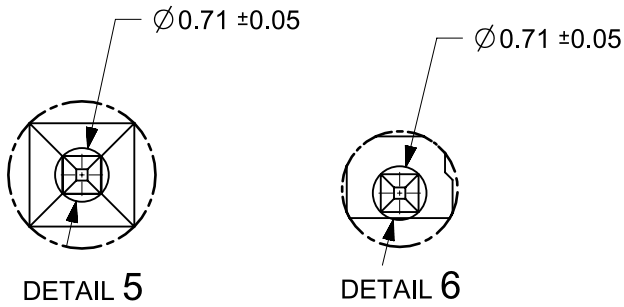
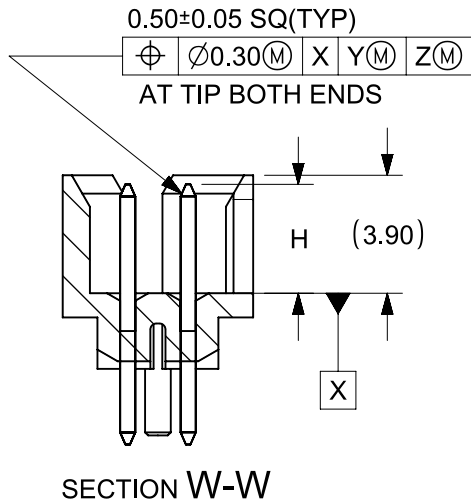
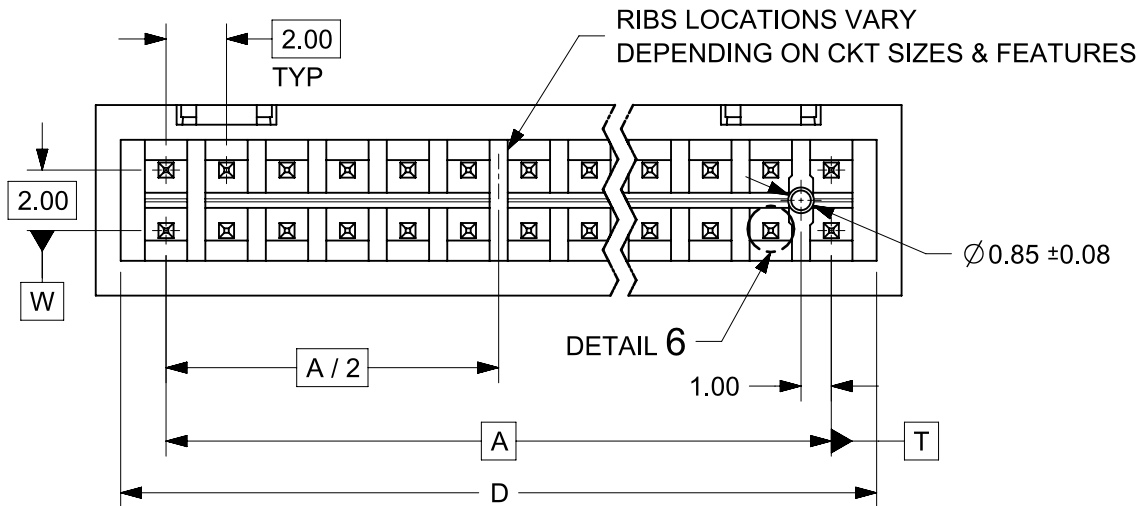
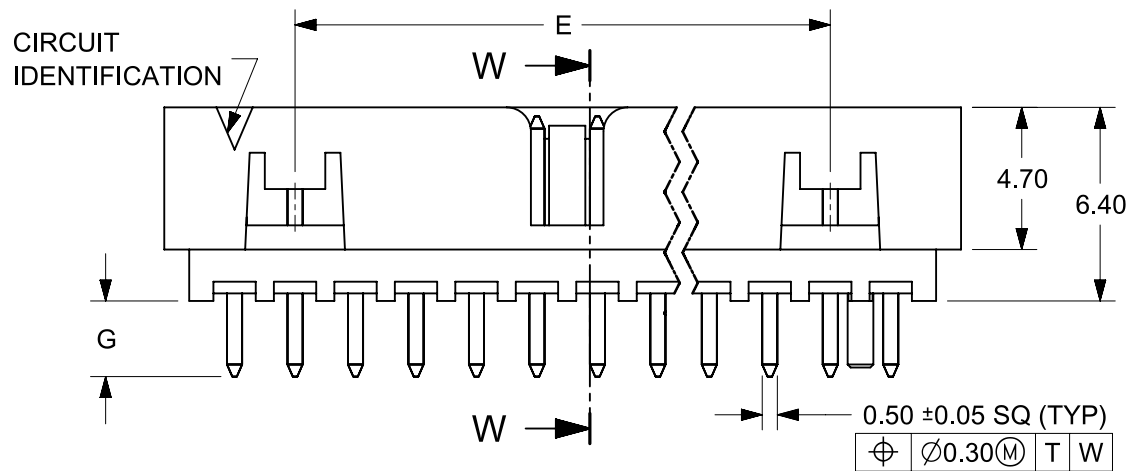
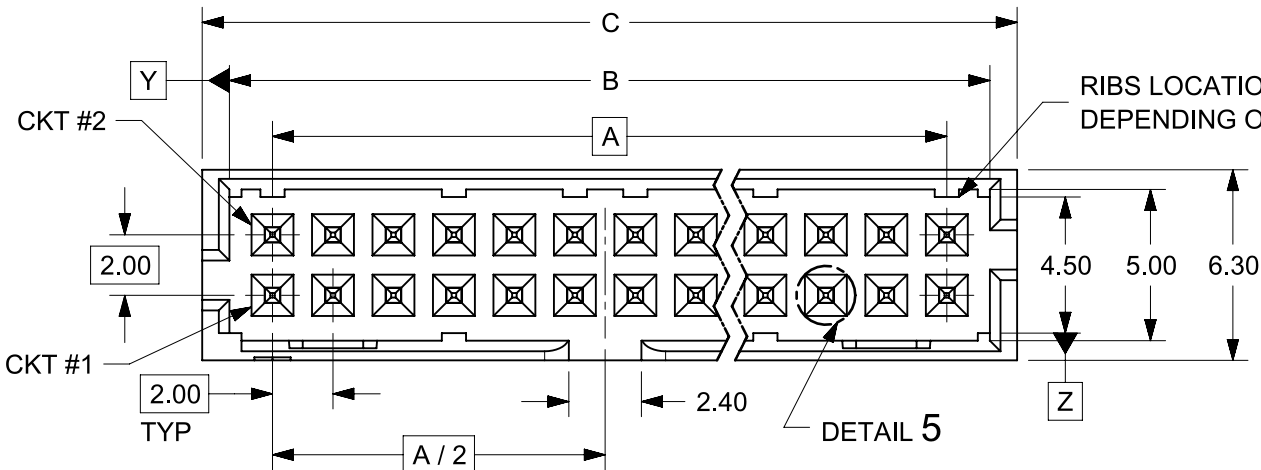
2015/04/15

2015/06/29

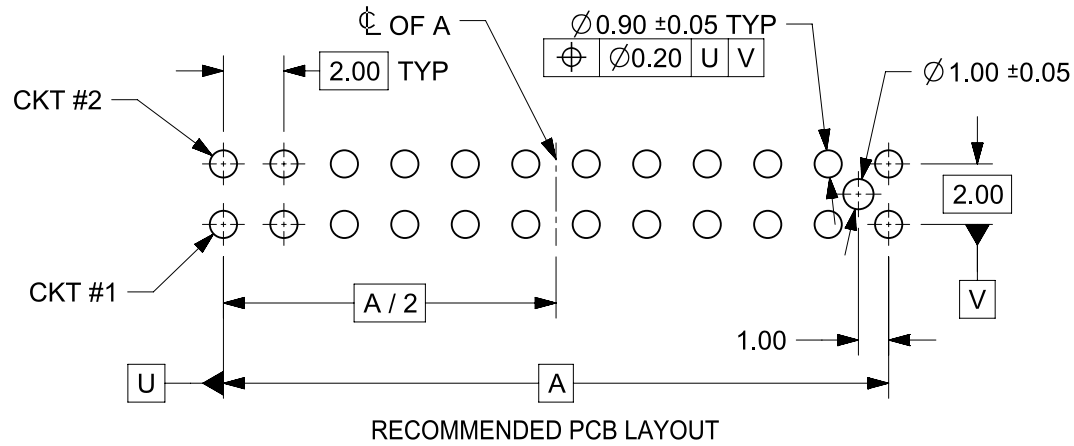
2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER

PRODUCT CUSTOM

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 INCH		DOCUMENT NUMBER			
4 PLACES	± 0 ± 0	MM	INCH	EC NO: CO-000042098		22-Apr-2026	
3 PLACES	± 0 ± 0			DRWN: Meghraj Boodagatti		08-Jun-2026	
2 PLACES	± 0.2 ± 0			CHK'D: Meghraj Boodagatti		08-Jun-2026	
1 PLACE	± 0 ± 0			APPR: Saravanakumar Murugesan		08-Jun-2026	
0 PLACES	± 0 ± 0			INITIAL REVISION:			
ANGULAR TOL		± 3 °		DRWN: GMENARLY		2015/04/15	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION		DRAWING		SERIES	
				A3-SIZE		87831	
				MATERIAL NUMBER		CUSTOMER	
				SEE TABLE		GENERAL MARKET	
				SHEET NUMBER		9 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																
	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	YES	N.A	YES	N.A	YES	YES									3.50	
	87831-3037	N.A	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES									1.60	
	87831-3010	87831-3030	87831-3050	N.A	2	YES	N.A	YES	N.A	YES	N.A							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																
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											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
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		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
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		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											
		9	8	7	6	5	4	3	2	1											

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		

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

DRAWING

A3-SIZE

SERIES

87831

MATERIAL NUMBER

SEE TABLE

CUSTOMER

GENERAL MARKET

SHEET NUMBER

13 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

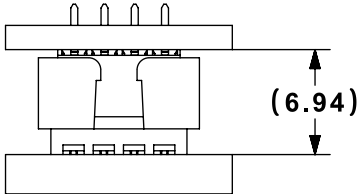
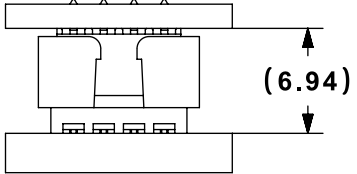
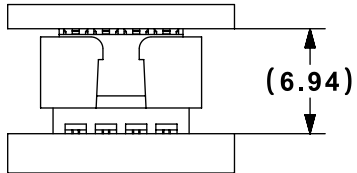
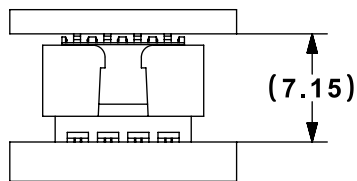
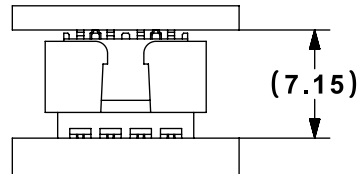
REVISION

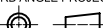
A25

PRODUCT CUSTOMER DRAWING

</

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													
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: DRWN BY XXXX/XX/XX APPR: APPR BY XXXX/XX/XX				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				GENERAL MARKET		14 OF 14		