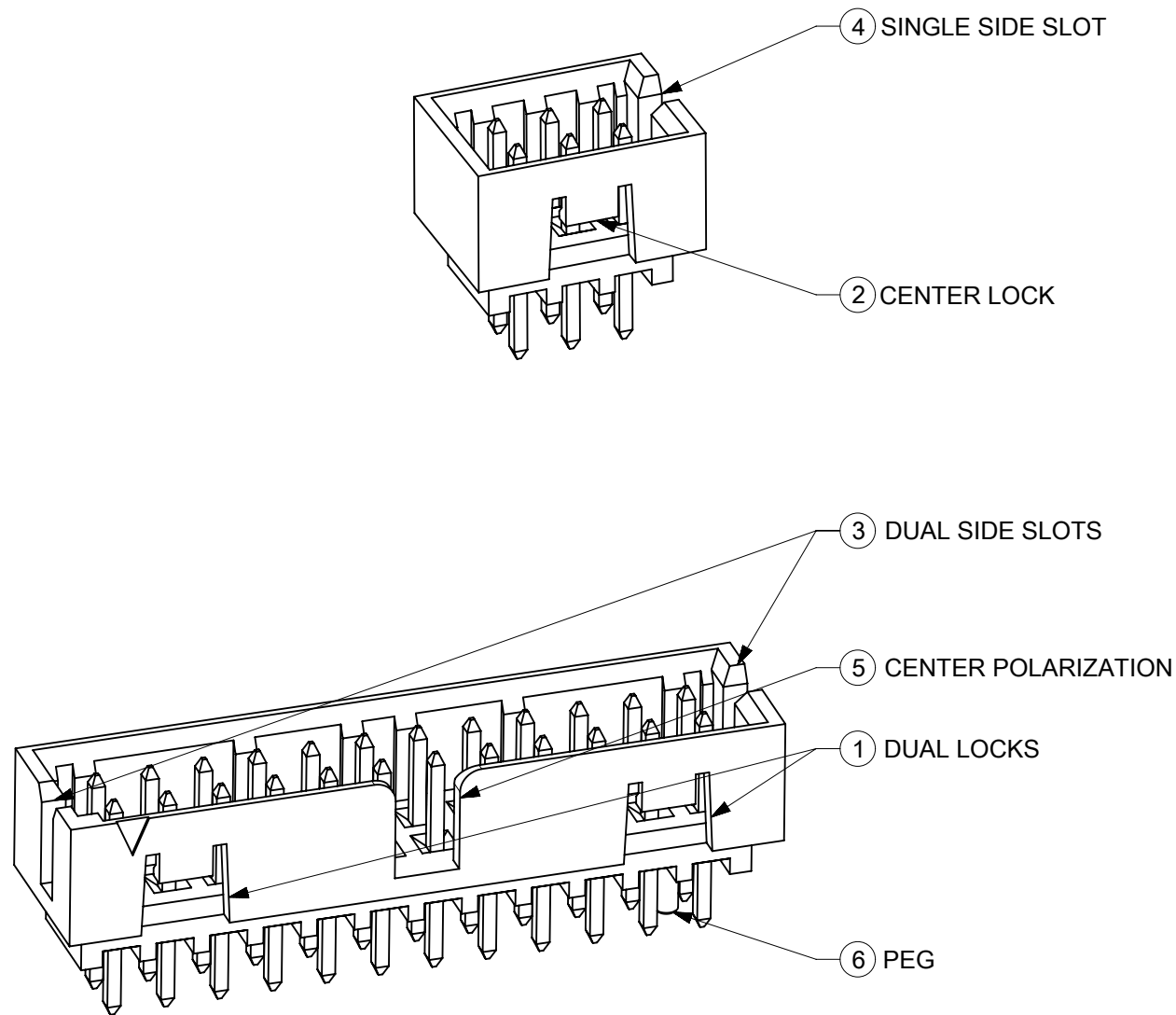


FEATURES SELECTION GUIDE



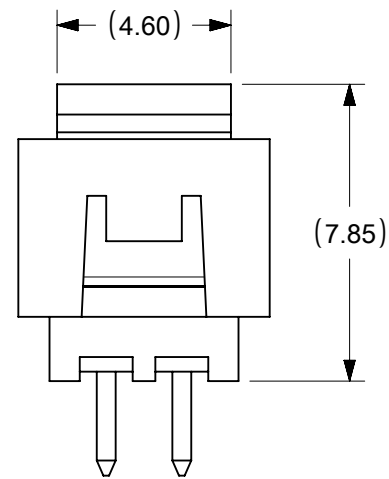
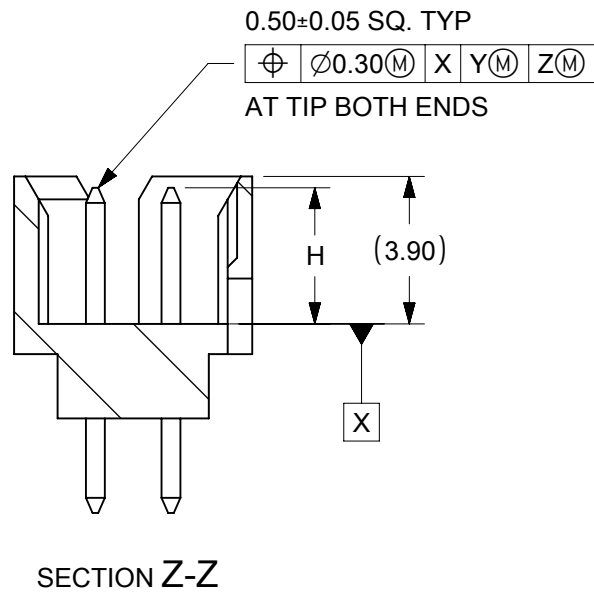
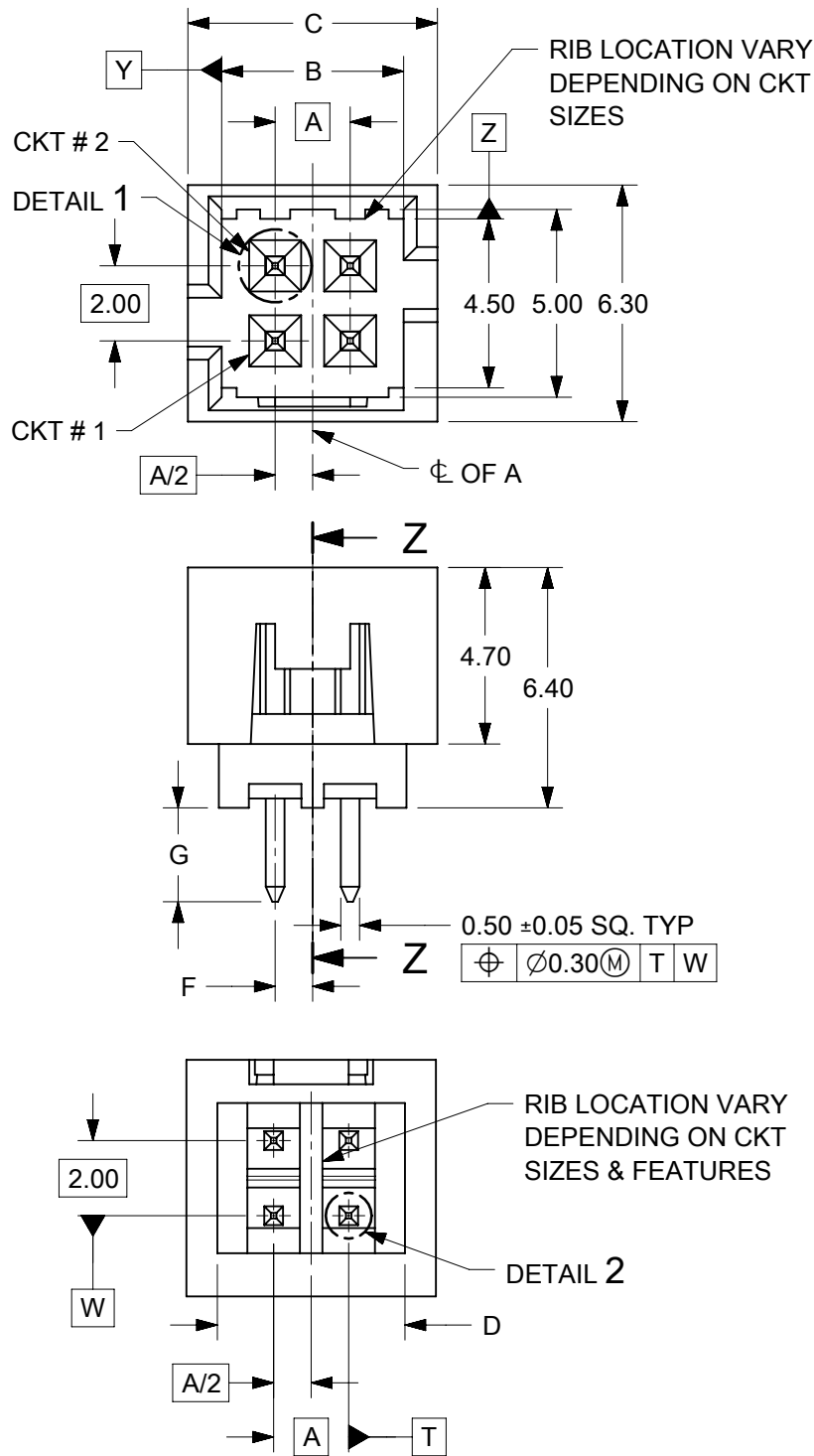
PACKAGING SPECIFICATION TABLE

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	

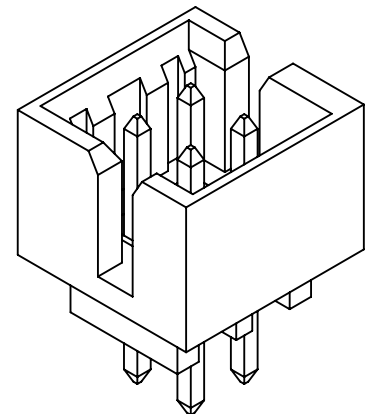
FEATURES							
CIRCUIT SIZE	FRICTION LOCKS		SIDE SLOTS		⑤ CENTER POLARIZATION	⑥ PEG	SHEET NO
	① DUAL	② CENTER	③ DUAL	④ SINGLE			
4	N.A	N.A	YES	N.A	N.A	N.A	2 - 3
	N.A	YES	YES	N.A	N.A	N.A	
	N.A	YES	N.A	YES	N.A	N.A	
6	N.A	N.A	YES	N.A	N.A	N.A	4 - 5
	N.A	N.A	YES	N.A	N.A	YES	
	N.A	YES	YES	N.A	N.A	N.A	
	N.A	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	

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: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.			molex					
mm		NTS										
GENERAL TOLERANCES (UNLESS SPECIFIED)							MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER					
	MM	INCH										
4 PLACES	±		±				EC NO: 761863 DRWN: SUAIFR 2023/08/14 CHK'D: GGA 2023/09/11 APPR: GGA 2023/09/11					
3 PLACES	±		±									
2 PLACES	±	0.2	±									
1 PLACE	±		±									
0 PLACES	±		±									
ANGULAR TOL ± 3.0°				INITIAL REVISION:			PRODUCT CUSTOMER DRAWING					
DRWN: GMENARLY 2015/04/15 APPR: KHLIM 2015/06/29				DOCUMENT NUMBER								
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION			SD-87831-0001			DOC TYPE	DOC PART	REVISION
							PSD			001	A24	
DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER		SHEET NUMBER				
A3-SIZE		87831		SEE TABLE		GENERAL MARKET		1 OF 14				

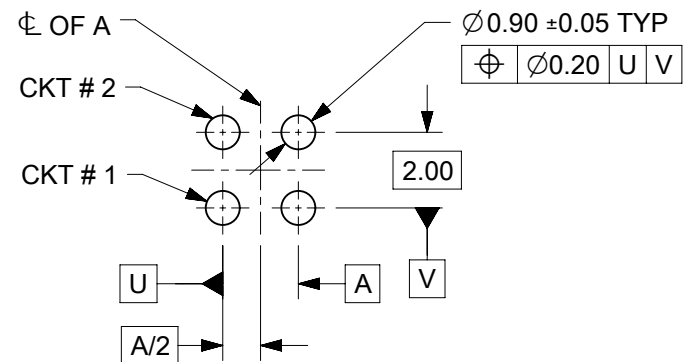
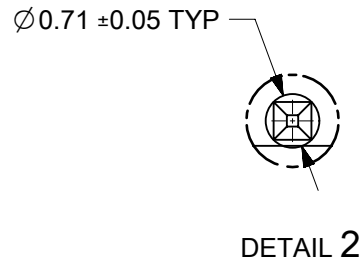
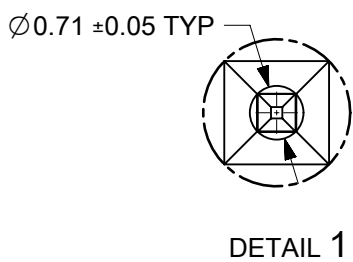
4 CIRCUITS



VIEW FOR
HEADER WITH CAP



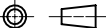
VIEW FOR HEADER
WITH ONLY DUAL SLOTS



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: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.			molex				
mm		NTS									
GENERAL TOLERANCES (UNLESS SPECIFIED)											
	MM	INCH									
4 PLACES	±	±					EC NO: 761863 DRWN: SUAIFR CHK'D: GGA APPR: GGA 2023/08/14 2023/09/11 2023/09/11			MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER	
3 PLACES	±	±									
2 PLACES	±	0.2	±								
1 PLACE	±	±		INITIAL REVISION: DRWN: GMENARLY APPR: KHLIM 2015/04/15 2015/06/29			PRODUCT CUSTOMER DRAWING				
0 PLACES	±	±					DOCUMENT NUMBER		DOC TYPE	DOC PART	REVISION
ANGULAR TOL		±	3.0 °				SD-87831-0001		PSD	001	A24
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	

DOCUMENT STATUS	P1	RELEASE DATE	2023/09/11	04:36:51
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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	±	±
3 PLACES	±	±
2 PLACES	± 0.2	±
1 PLACE	±	±
0 PLACES	±	±
ANGULAR TOL	± 3.0 °	

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

THIRD ANGLE PROJECTION

DRAWING

A3-SIZE

SERIES

87831

EC NO: 761863
DRWN: SUAIFR
CHK'D: GGA
APPR: GGA

2023/08/14
2023/09/11
2023/09/11

INITIAL REVISION:
DRWN: GMENARLY
APPR: KHLIM

2015/04/15
2015/06/29

DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

PSD

DOC PART

001

REVISION

A24

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

PSD

DOC PART

001

REVISION

A24

MATERIAL NUMBER

SEE TABLE

CUSTOMER

GENERAL MARKET

SHEET NUMBER

3 OF 14

DOCUMENT STATUS

P1

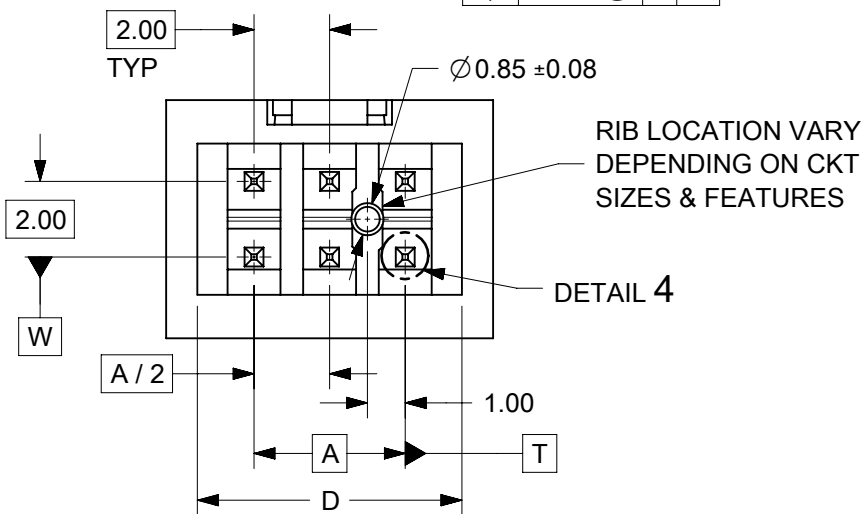
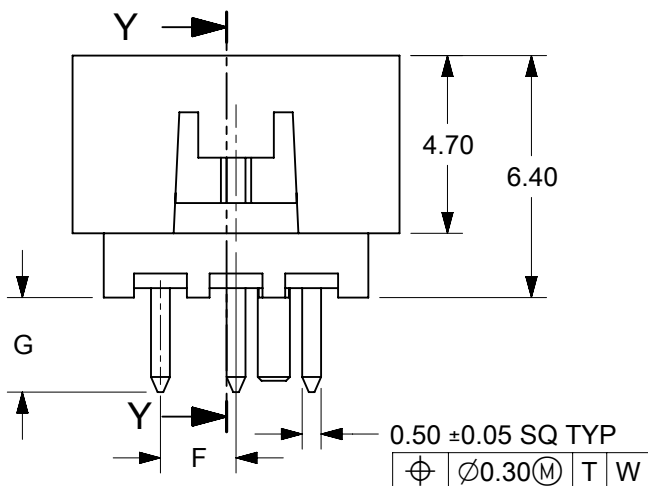
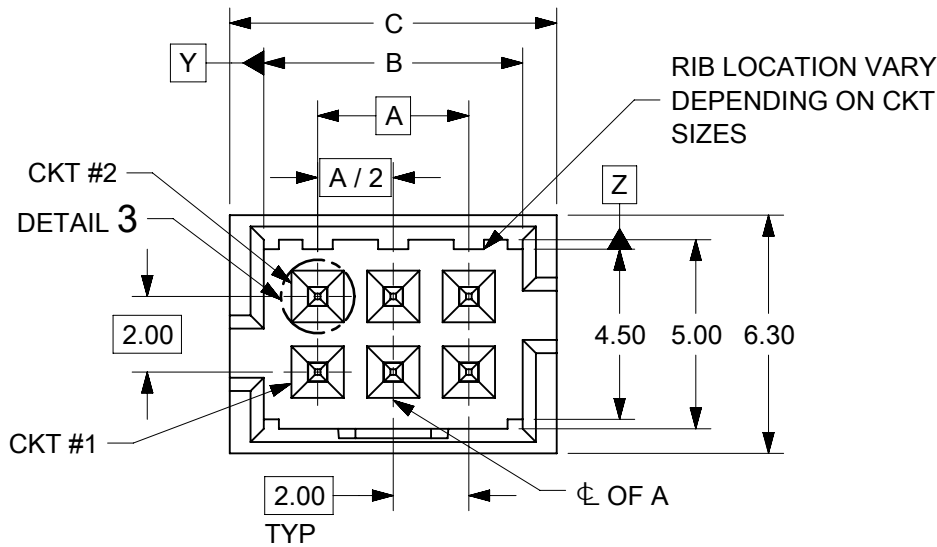
RELEASE DATE

2023/09/11

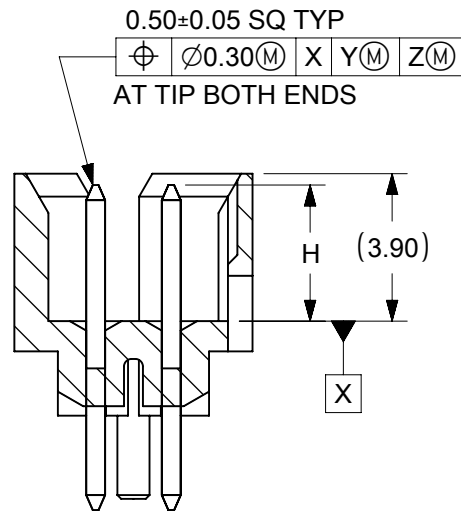
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9	8	7	6	5	4	3	2	1
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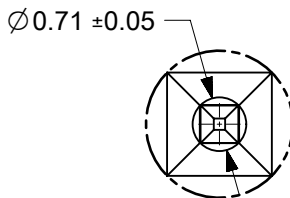
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REVISION: E1
DATE: 2021/05/01



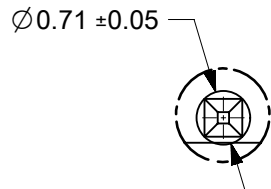
6 CIRCUITS



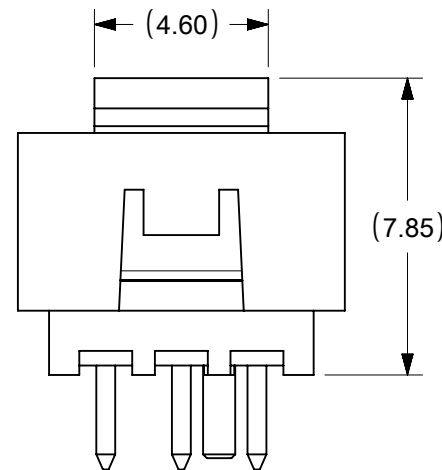
SECTION Y-Y



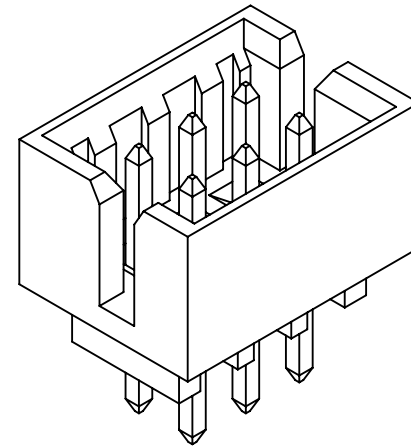
DETAIL 3



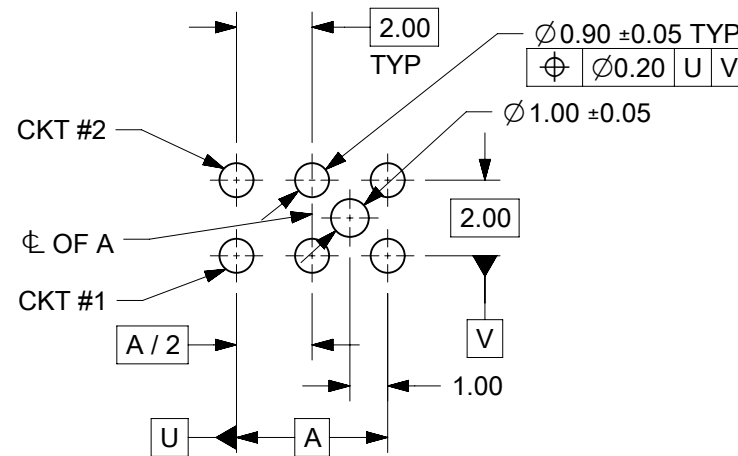
DETAIL 4



VIEW FOR
HEADER WITH CAP



VIEW FOR HEADER WITH
ONLY DUAL SLOTS



RECOMMENDED PCB LAYOUT

NOTES:

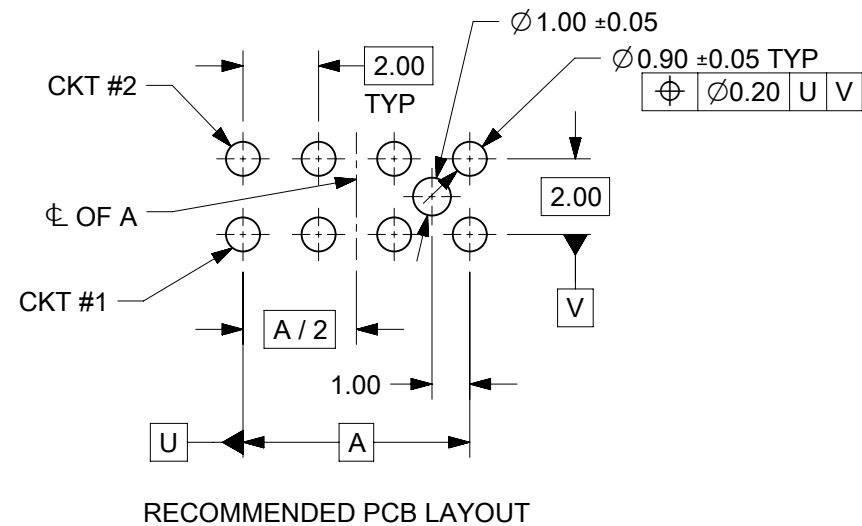
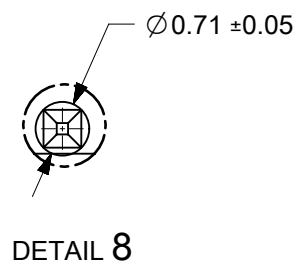
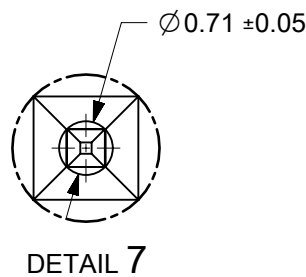
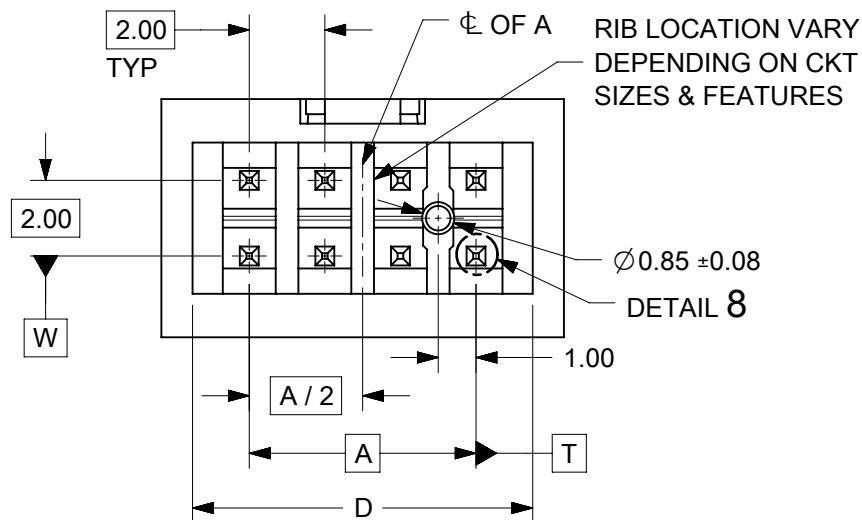
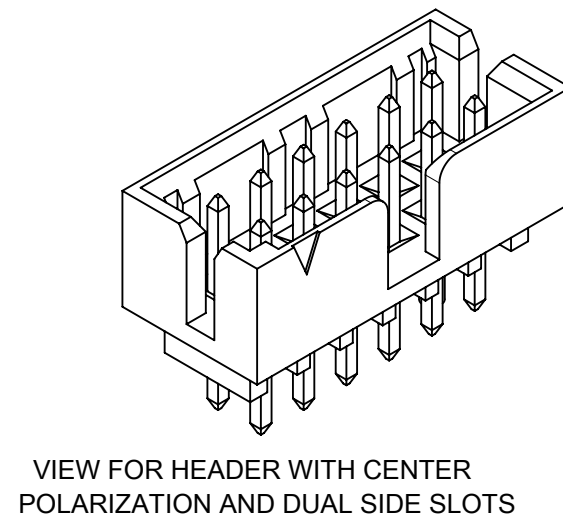
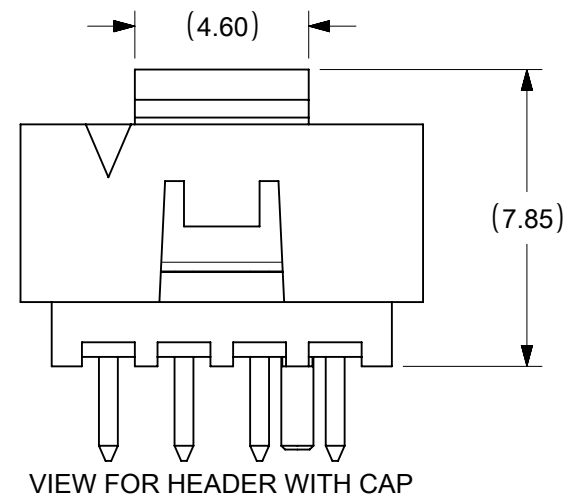
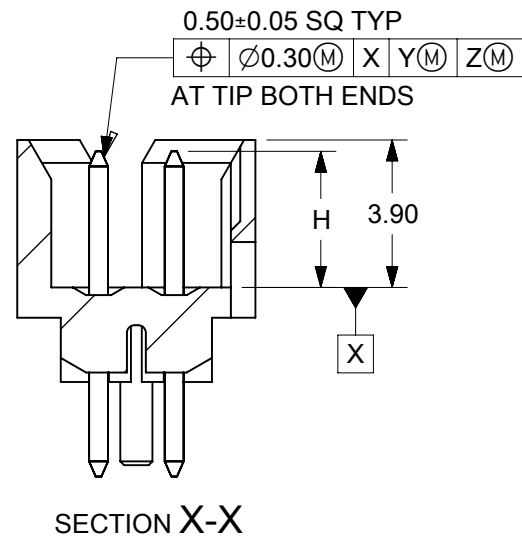
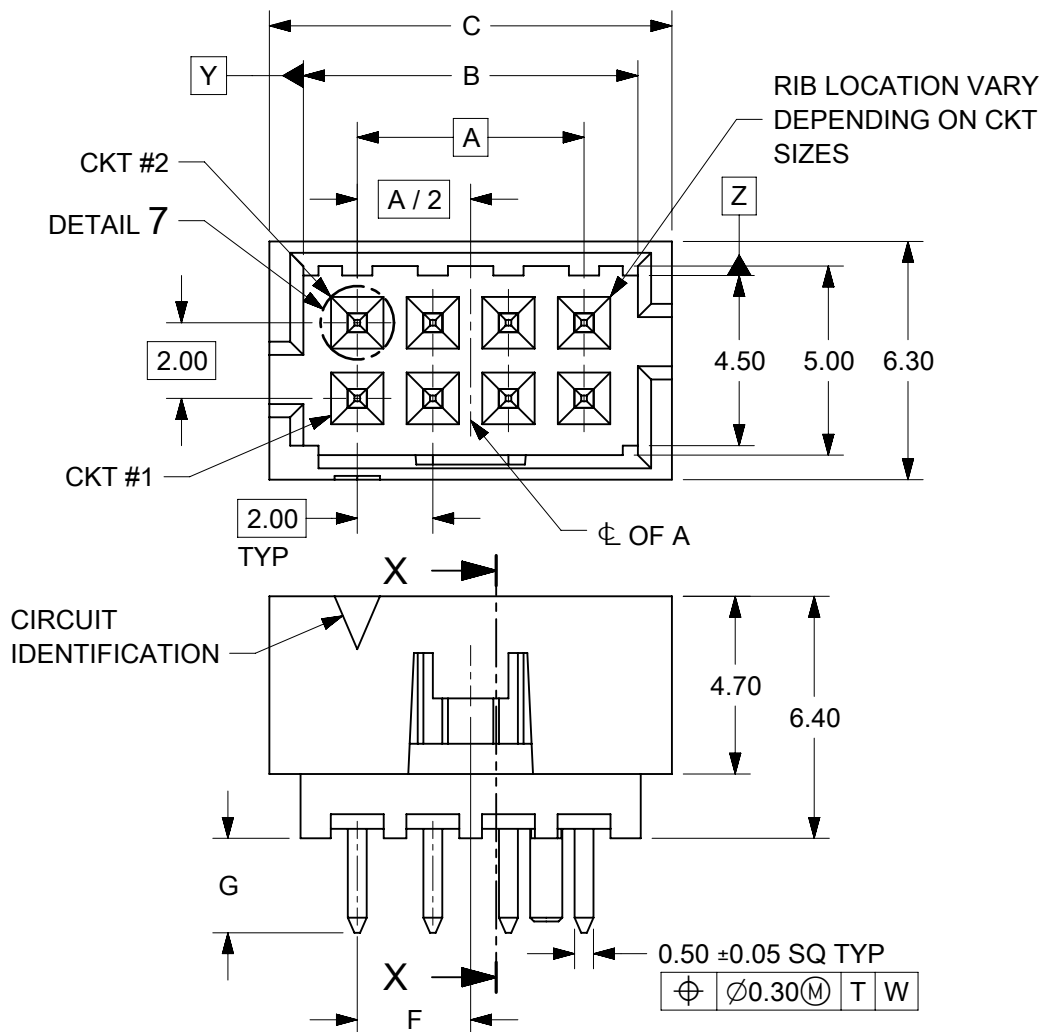
- MATERIALS:
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK
PIN: 0.50mm SQ PHOSPHOR BRONZE
- FINISHES: REFER TO PLATING OPTIONS
- PRODUCT SPECIFICATION: PS-87831-027
- PACKAGING SPECIFICATION: SEE PACKAGING SPECS TABLE ON SHEET 1
- MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES
AND CRIMP 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: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.				molex MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER							
mm		NTS													
GENERAL TOLERANCES (UNLESS SPECIFIED)				PRODUCT CUSTOMER DRAWING											
		MM	INCH							DOCUMENT NUMBER SD-87831-0001 DOC TYPE PSD DOC PART 001 REVISION A24					
4 PLACES	±		±												
3 PLACES	±		±												
2 PLACES	±	0.2	±												
1 PLACE	±		±	INITIAL REVISION: DRWN: GMENARLY APPR: KHLIM 2015/04/15 2015/06/29											
0 PLACES	±		±												
ANGULAR TOL		± 3.0 °		DOCUMENT NUMBER SD-87831-0001 DOC TYPE PSD DOC PART 001 REVISION A24											
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING A3-SIZE		SERIES 87831		MATERIAL NUMBER SEE TABLE		CUSTOMER GENERAL MARKET		SHEET NUMBER 4 OF 14	

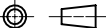
DOCUMENT STATUS	P1	RELEASE DATE	2023/09/11	04:36:51
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F	6 CIRCUITS										F													
	6	CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION											
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H					
		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																			
E		87831-0636	N.A	N.A	4																			
		87831-0628	N.A	N.A	2	N.A	N.A	YES	N.A	N.A	YES						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						2.00	2.50						
		87831-0642	N.A	87831-5552	3															N.A	YES	YES	N.A	N.A
D		87831-5241	N.A	N.A	2	N.A	YES	YES	N.A	N.A	2.80													
		87831-5242	N.A	N.A	3														N.A					
		87831-6241	N.A	N.A	2	N.A	YES	YES	N.A	N.A	2.50							3.60 ^{+0.15} -0.10						
		87831-6242	N.A	N.A	3														N.A	YES	N.A	YES	N.A	YES
		87831-0643	N.A	N.A	2	N.A	YES	N.A	YES	N.A	YES													
		87831-0644	N.A	N.A	3													N.A	YES	N.A	YES	N.A	YES	2.50
C		87831-0645	N.A	N.A	2	N.A	YES	N.A	YES	N.A	YES													
		87831-0646	N.A	N.A	3													N.A	YES	YES	N.A	N.A	YES	2.50
		87831-0632	N.A	N.A	2	N.A	YES	YES	N.A	N.A	YES													
		87831-5119	N.A	N.A	1												N.A	N.A	YES	N.A	YES	N.A	3.60±0.20	
		87831-5121	N.A	N.A	3																			
		87831-5136	N.A	N.A	4																			
B																					B			
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.																				A			
	DOCUMENT STATUS	P1	RELEASE DATE	2023/09/11	04:36:51	7	6	5	4	3	2	1												
	FORMAT: Met-lega-master-ib-prod-A3	9	8	7	6	5	4	3	2	1														
	REVISION: E1																							
	DATE: 2021/05/01																							

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: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.				molex							
mm		NTS													
GENERAL TOLERANCES (UNLESS SPECIFIED)				MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER											
		MM	INCH							PRODUCT CUSTOMER DRAWING					
4 PLACES	±		±												
3 PLACES	±		±	DOC TYPE PSD											
2 PLACES	±	0.2	±							DOC PART 001					
1 PLACE	±		±	REVISION A24											
0 PLACES	±		±							INITIAL REVISION: DRWN: GMENARLY APPR: KHLIM					
ANGULAR TOL ± 3.0 °				THIRD ANGLE PROJECTION											
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS												DRAWING		SERIES	
				A3-SIZE		87831		SEE TABLE				GENERAL MARKET		6 OF 14	

DOCUMENT STATUS	P1	RELEASE DATE	2023/09/11	04:36:51
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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	N.A	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	N.A						N.A	YES		N.A	N.A	N.A	N.A	2.50
	87831-5841	N.A	N.A	2																			
	87831-5441	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						N.A	YES		N.A	N.A	N.A	N.A	3.50
	87831-5442	N.A	N.A	3																			
	87831-5541	N.A	N.A	2																			
	87831-5542	N.A	N.A	3	N.A	YES	YES	N.A	N.A	N.A						N.A	YES	N.A	N.A	N.A	N.A	N.A	2.80
	87831-5741	N.A	N.A	2																			
	87831-0832	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						YES	N.A	YES	N.A	N.A	N.A	N.A	2.50
	87831-0843	N.A	N.A	2																			
	87831-0844	N.A	N.A	3																			
	87831-0845	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A						YES	N.A	YES	N.A	N.A	N.A	N.A	2.50
	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

mm

SCALE

NTS

GENERAL TOLERANCES
(UNLESS SPECIFIED)

	MM	INCH
4 PLACES	±	±
3 PLACES	±	±
2 PLACES	± 0.2	±
1 PLACE	±	±
0 PLACES	±	±
ANGULAR TOL	± 3.0 °	

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

THIRD ANGLE PROJECTION

DRAWING

A3-SIZE

SERIES

87831

EC NO: 761863

DRWN: SUAIFR

CHK'D: GGA

APPR: GGA

2023/08/14

2023/09/11

2023/09/11

INITIAL REVISION:

DRWN: GMENARLY

APPR: KHLIM

2015/04/15

2015/06/29

CURRENT REV DESC: REMOVED OBSOLETE PART
NUMBERS AS PER PCN#512581.

DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

PSD

DOC PART

001

REVISION

A24

PRODUCT CUSTOMER DRAWING

MATERIAL NUMBER

SEE TABLE

CUSTOMER

GENERAL MARKET

SHEET NUMBER

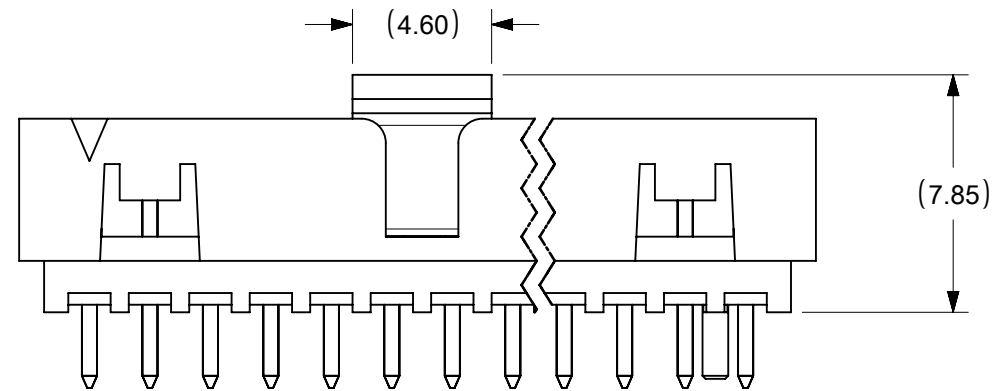
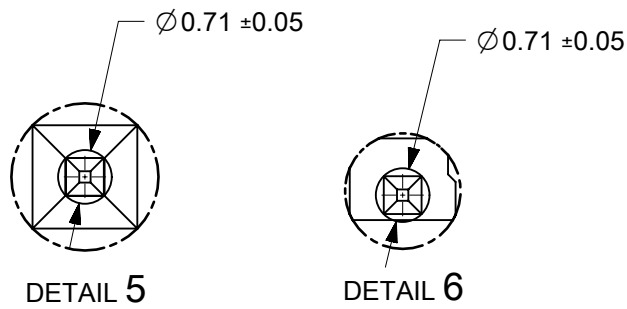
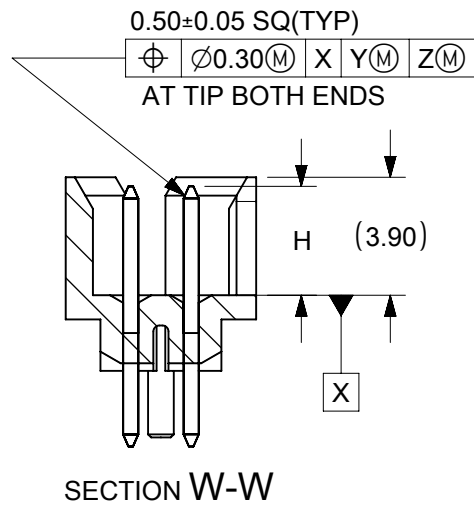
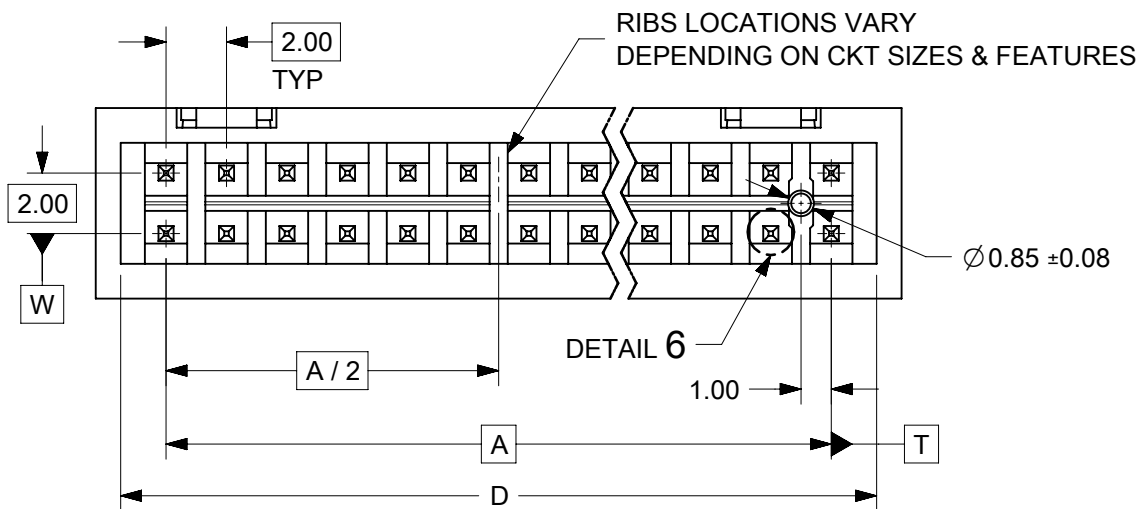
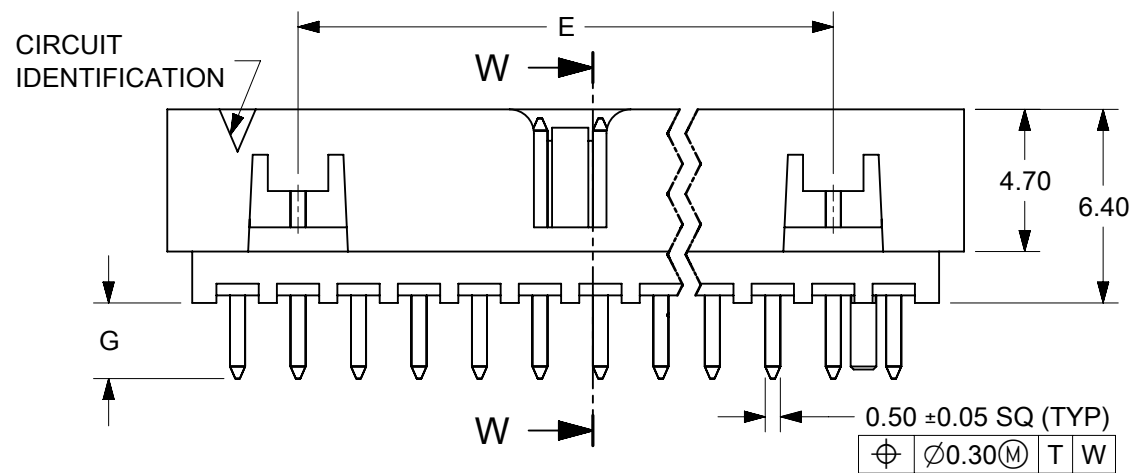
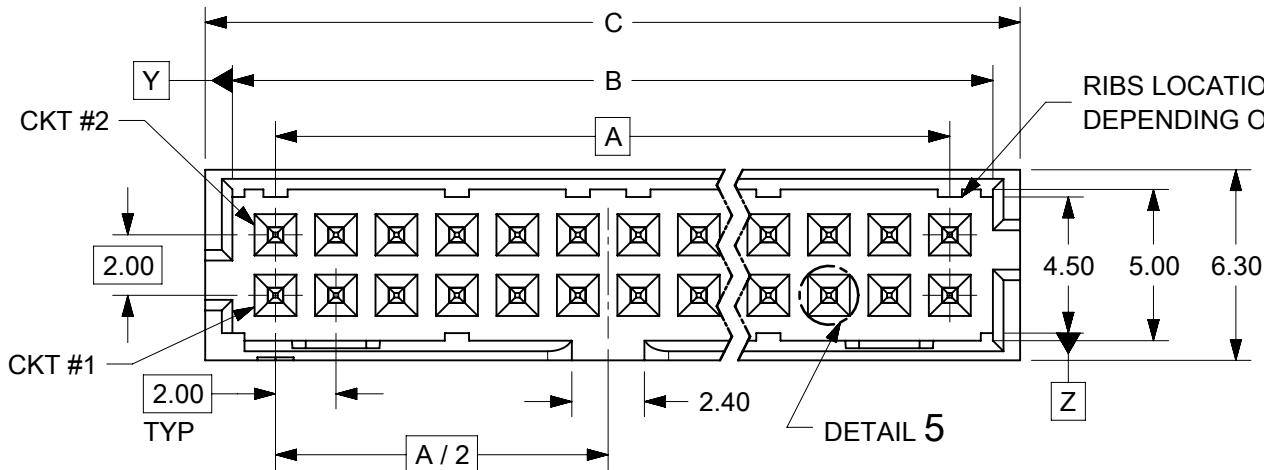
7 OF 14

DOCUMENT STATUS	P1	RELEASE DATE	2023/09/11	04:36:51														
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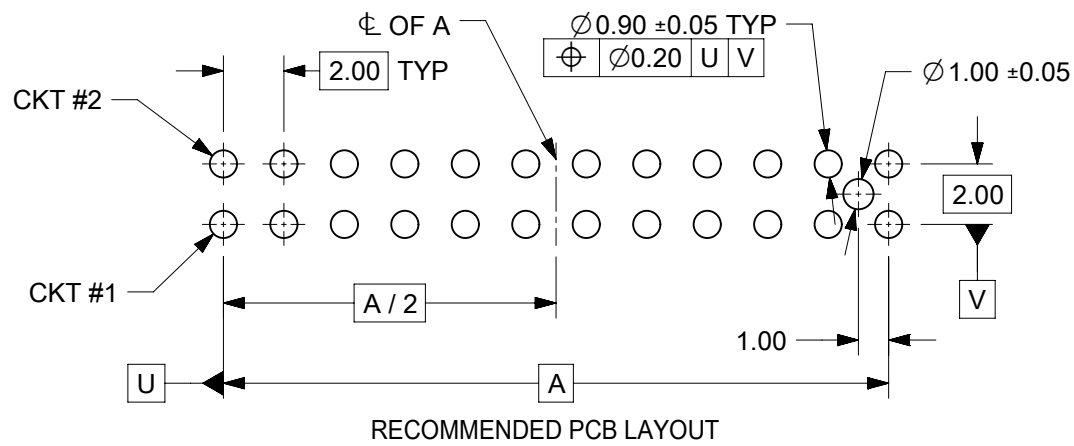
FORMAT: Met-lega-master-4b-prod-A3
REVISION: E1
DATE: 2021/05/01

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		CENTE R POLARI ZATION	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	N.A	87831-5561	2	N.A	N.A	YES	N.A	YES	N.A	3.50																													
	87831-1011	N.A	N.A	3																																				
	87831-1028	N.A	N.A	2																																				
	87831-1029	N.A	87831-5557	3																																				
	87831-1035	N.A	N.A	3	N.A	N.A	YES	N.A	YES	YES	3.50																													
	87831-1041	N.A	N.A	2																																				
	87831-1042	N.A	87831-5553	3																																				
	87831-1032	N.A	N.A	2													N.A	YES		YES	N.A	N.A	YES	2.50																
	87831-1043	N.A	N.A	2																																				
	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	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	YES														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.										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) <table><tr><td></td><td>MM</td><td>INCH</td></tr><tr><td>4 PLACES</td><td>±</td><td>±</td></tr><tr><td>3 PLACES</td><td>±</td><td>±</td></tr><tr><td>2 PLACES</td><td>± 0.2</td><td>±</td></tr><tr><td>1 PLACE</td><td>±</td><td>±</td></tr><tr><td>0 PLACES</td><td>±</td><td>±</td></tr><tr><td>ANGULAR TOL</td><td>± 3.0 °</td><td></td></tr></table> DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS THIRD ANGLE PROJECTION DRAWING A3-SIZE SERIES 87831 CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581. EC NO: 761863 DRWN: SUAIFR CHK'D: GGA APPR: GGA 2023/08/14 2023/09/11 2023/09/11 INITIAL REVISION: DRWN: GMENARLY APPR: KHLIM 2015/04/15 2015/06/29 DOCUMENT NUMBER SD-87831-0001 DOC TYPE PSD DOC PART 001 REVISION A24 PRODUCT CUSTOMER DRAWING MATERIAL NUMBER SEE TABLE CUSTOMER GENERAL MARKET SHEET NUMBER 8 OF 14											MM	INCH	4 PLACES	±	±	3 PLACES	±	±	2 PLACES	± 0.2	±	1 PLACE	±	±	0 PLACES	±	±	ANGULAR TOL	± 3.0 °
	MM	INCH																																						
4 PLACES	±	±																																						
3 PLACES	±	±																																						
2 PLACES	± 0.2	±																																						
1 PLACE	±	±																																						
0 PLACES	±	±																																						
ANGULAR TOL	± 3.0 °																																							
DOCUMENT STATUS	P1	RELEASE DATE	2023/09/11	04:36:51																																				
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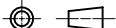
14 TO 50 CIRCUITS



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															
DIMENSION UNITS		SCALE		CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.		molex									
mm		NTS													
GENERAL TOLERANCES (UNLESS SPECIFIED)				MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER											
	MM	INCH	EC NO: 761863 DRWN: SUAIFR CHK'D: GGA APPR: GGA 2023/08/14 2023/09/11 2023/09/11												
4 PLACES	±	±													
3 PLACES	±	±													
2 PLACES	±	0.2								±					
1 PLACE	±	±	PRODUCT CUSTOMER DRAWING				DOCUMENT NUMBER SD-87831-0001 DOC TYPE PSD DOC PART 001 REVISION A24								
0 PLACES	±	±	INITIAL REVISION: DRWN: GMENARLY APPR: KHLIM 2015/04/15 2015/06/29												
ANGULAR TOL ± 3.0 °			THIRD ANGLE PROJECTION			DRAWING A3-SIZE		SERIES 87831		MATERIAL NUMBER SEE TABLE		CUSTOMER GENERAL MARKET		SHEET NUMBER 9 OF 14	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS															

DOCUMENT STATUS	P1	RELEASE DATE	2023/09/11	04:36:51
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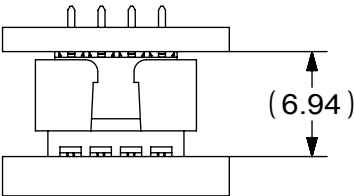
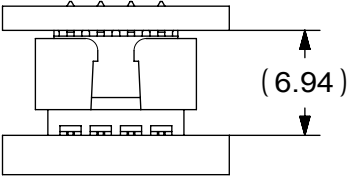
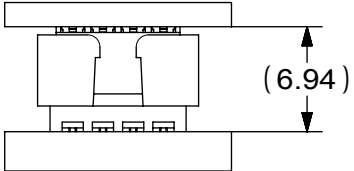
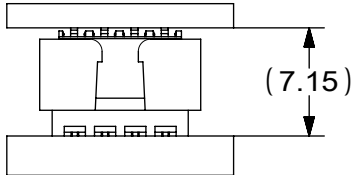
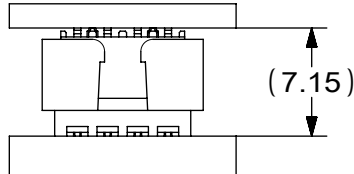
10	9	8	7	6	5	4	3	2	1										
22 TO 30 CIRCUITS																			
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	ASSY P/N WITHOUT CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION							
						DUAL	CENTER	DUAL	SINGLE			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	
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														
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	
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	P1	RELEASE DATE	2023/09/11	04:36:51															
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10		9		8		7		6		5		4		3		2		1	
32 TO 40 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
	32	87831-3219	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	30.00	32.85	34.65	33.00	26.00	N.A	2.50	3.60±0.20
		87831-3220	N.A	N.A	2														
		87831-3221	N.A	N.A	3														
		87831-3236	N.A	N.A	4														
		87831-3228	N.A	N.A	2														
87831-3229	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES	2.50									
E	34	87831-3419	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	32.00	34.85	36.65	35.00	28.00	N.A	2.50	3.60±0.20
		87831-3420	N.A	N.A	2														
		87831-3421	N.A	N.A	3														
		87831-3436	N.A	N.A	4														
		87831-3428	N.A	N.A	2														
		87831-3429	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							2.50	
		87831-3435	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							3.50	
D	36	87831-3619	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	34.00	36.85	38.65	37.00	30.00	N.A	2.50	3.60±0.20
		87831-3620	N.A	87831-5564	2														
		87831-3621	N.A	N.A	3														
		87831-3636	N.A	N.A	4														
		87831-3628	N.A	N.A	2														
		87831-3629	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							2.50	
	38	87831-3819	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A							36.00	
87831-3820		N.A	N.A	2															
87831-3821		N.A	N.A	3															
87831-3836		N.A	N.A	4															
87831-3828		N.A	N.A	2															
87831-3829		N.A	N.A	3	YES	N.A	YES	N.A	YES	YES	2.50								
C	40	87831-4019	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	38.00	40.85	42.65	41.00	34.00	N.A		2.50
		87831-4020	N.A	N.A	2														
		87831-4021	N.A	N.A	3														
		87831-4036	N.A	N.A	4														
		87831-4028	N.A	N.A	2														
		87831-4029	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							2.50	
		87831-4010	N.A	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		P1	RELEASE DATE	2023/09/11	04:36:51	7		6		5		4		3		2		1	
FORMAT: Met-lega-master-ib-prod-A3 REVISION: E1 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		SCALE		CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.				molex									
mm		NTS															
GENERAL TOLERANCES (UNLESS SPECIFIED)																	
		MM		INCH		EC NO: 761863 DRWN: SUAIFR CHK'D: GGA APPR: GGA 2023/08/14 2023/09/11 2023/09/11				MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER							
4 PLACES		±		±													
3 PLACES		±		±													
2 PLACES		± 0.2		±						PRODUCT CUSTOMER DRAWING							
1 PLACE		±		±													
0 PLACES		±		±		INITIAL REVISION:				DOCUMENT NUMBER		DOC TYPE		DOC PART		REVISION	
ANGULAR TOL		± 3.0 °				DRWN: GMENARLY APPR: KHLIM 2015/04/15 2015/06/29				SD-87831-0001		PSD		001		A24	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER		SHEET NUMBER			
						A3-SIZE		87831		SEE TABLE		GENERAL MARKET		12 OF 14			

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.																			
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4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.																			
DOCUMENT STATUS		P1	RELEASE DATE	2023/09/11	04:36:51														
		9		8		7		6		5		4		3		2		1	

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	±	±	
3 PLACES	±	±	
2 PLACES	± 0.2	±	
1 PLACE	±	±	
0 PLACES	±	±	
ANGULAR TOL		± 3.0 °	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	

CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.

EC NO: 761863
DRWN: SUAIFR
CHK'D: GGA
APPR: GGA

2023/08/14
2023/09/11
2023/09/11

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
A24

MATERIAL NUMBER

CUSTOMER
GENERAL MARKET

SHEET NUMBER
14 OF 14

A3-SIZE

87831