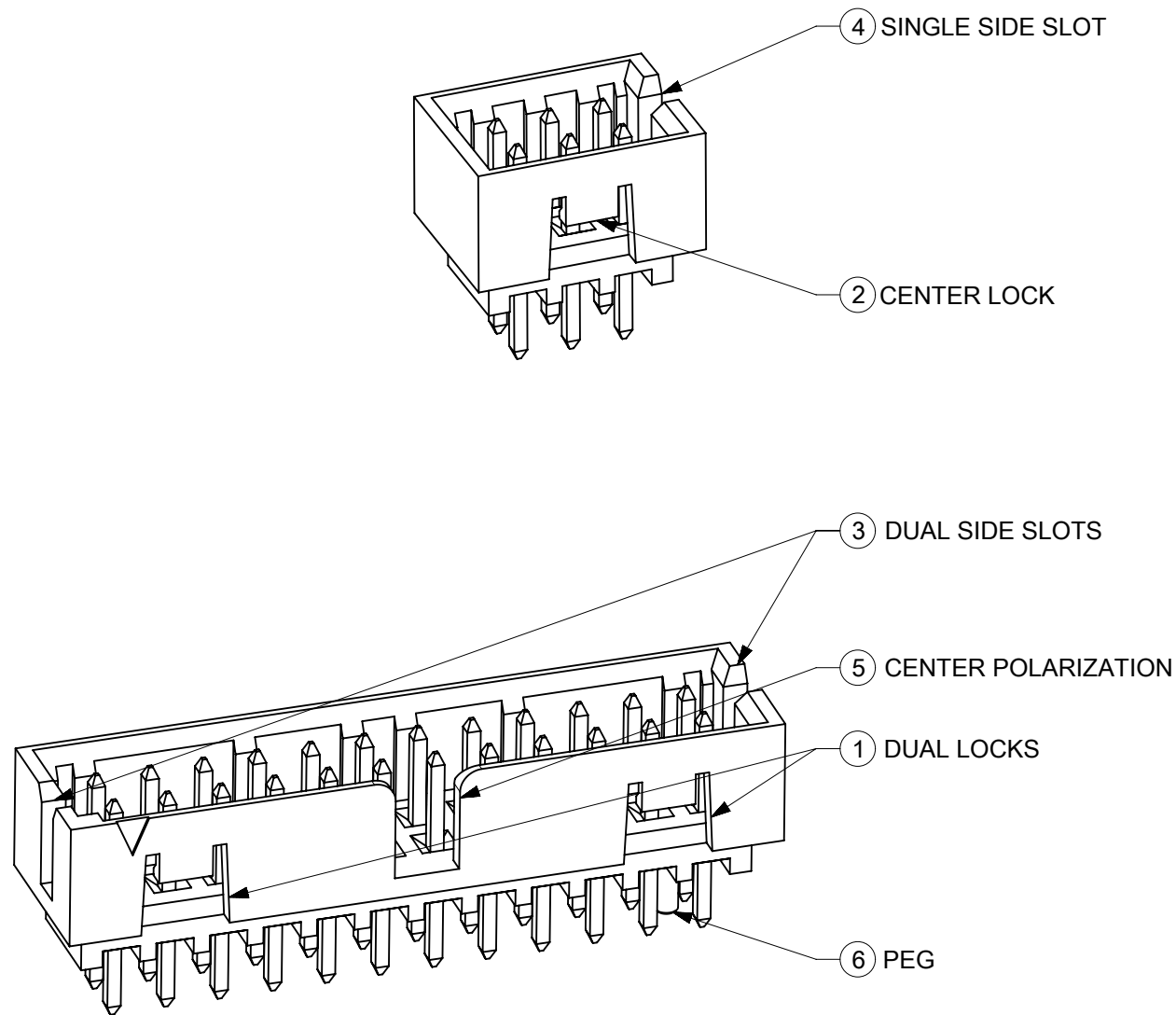


# FEATURES SELECTION GUIDE



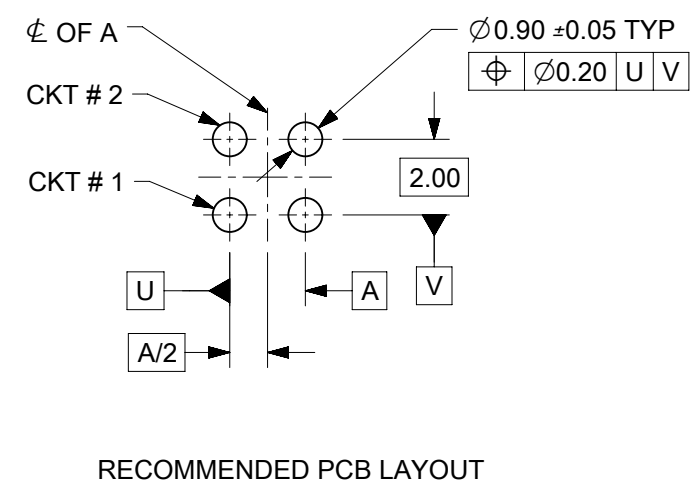
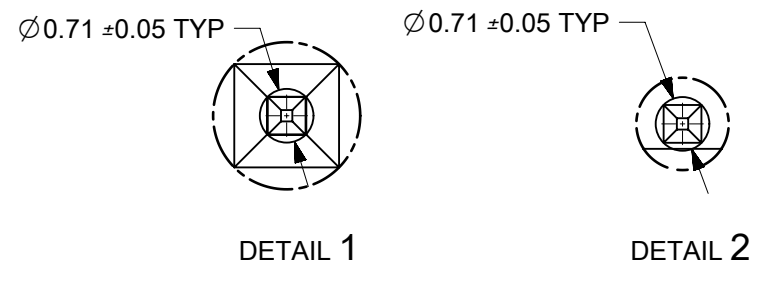
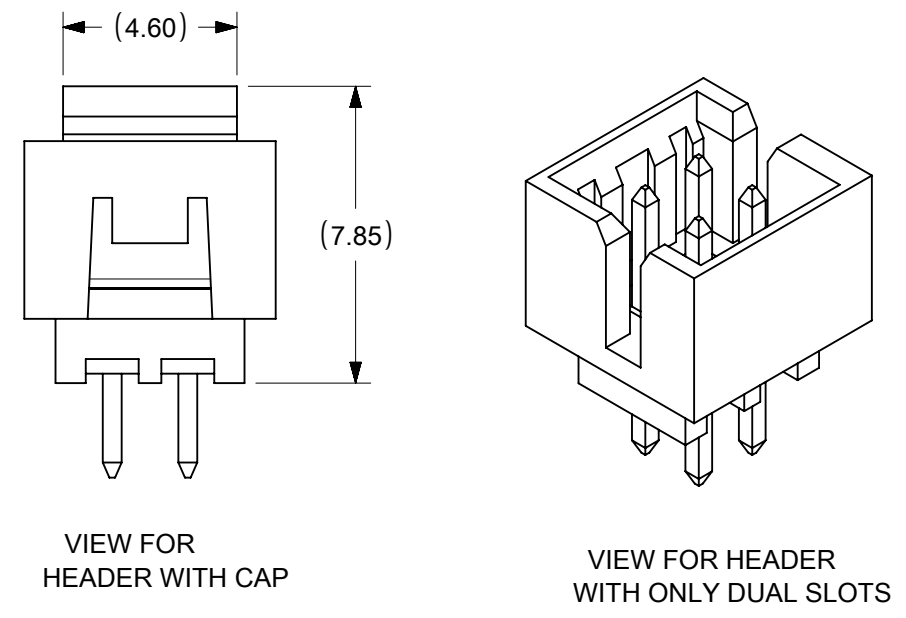
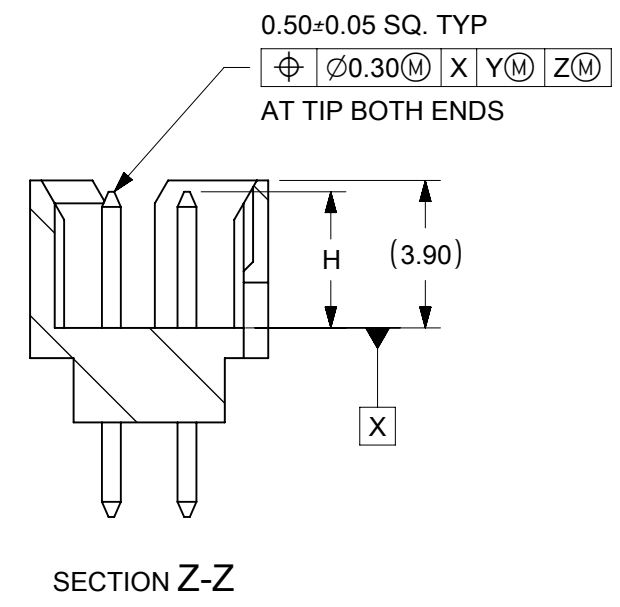
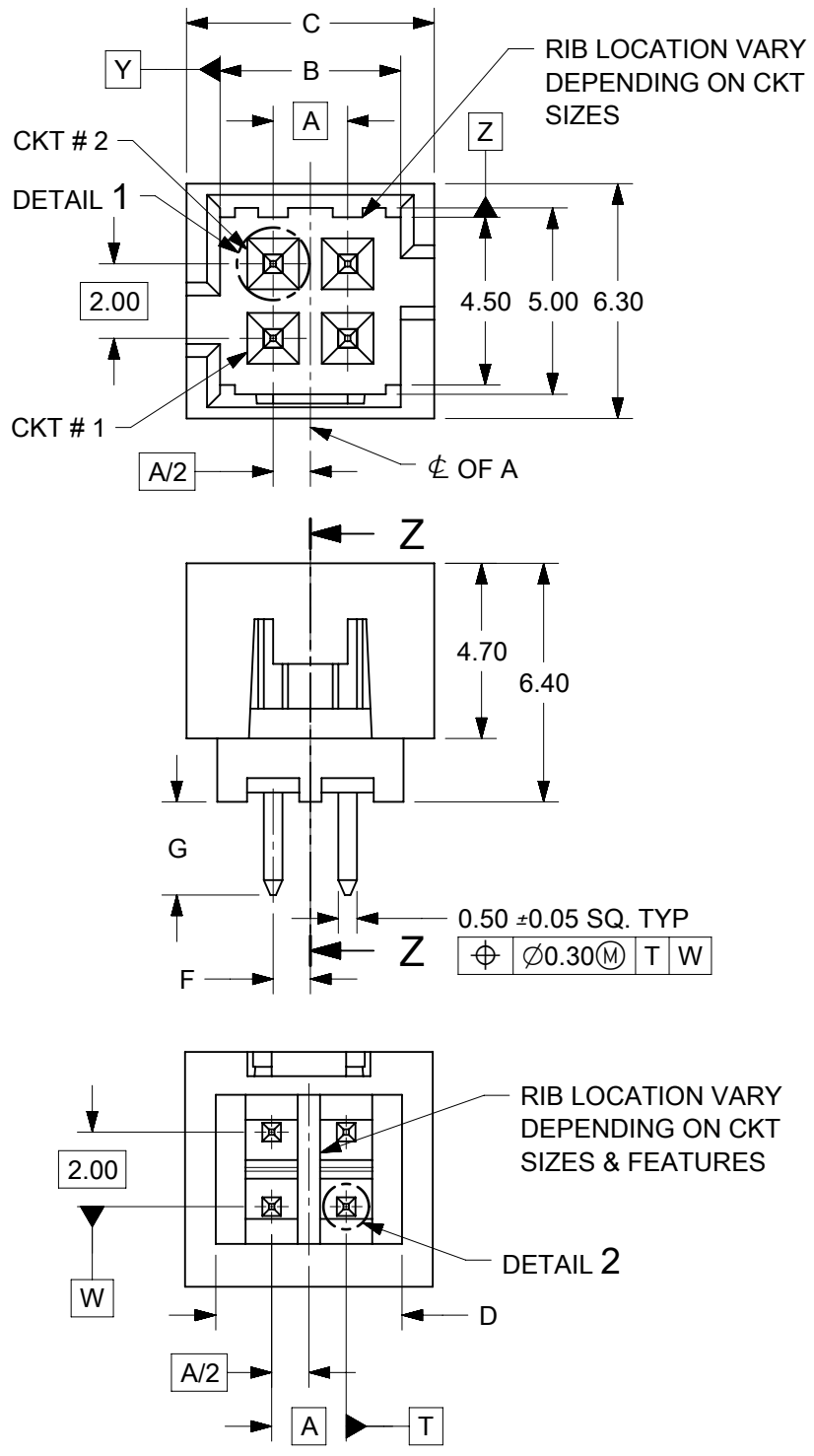
CIRCUIT SIZE	FRICTION LOCKS		SIDE SLOTS		5 CENTER POLARIZATION	6 PEG	SHEET NO
	1 DUAL	2 CENTER	3 DUAL	4 SINGLE			
4	N.A	N.A	YES	N.A	N.A	N.A	2 - 3
	N.A	YES	YES	N.A	N.A	N.A	
	N.A	YES	N.A	YES	N.A	N.A	
6	N.A	N.A	YES	N.A	N.A	N.A	4 - 5
	N.A	N.A	YES	N.A	N.A	YES	
	N.A	YES	YES	N.A	N.A	N.A	
	N.A	YES	YES	N.A	N.A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

<b>SYMBOLS</b> ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		SCALE DIMENSION UNITS: <b>mm</b> <b>NTS</b>		CURRENT REV DESC: ADDED BTB DIST.			
	GENERAL TOLERANCES (UNLESS SPECIFIED)		EC NO: 619055 DRWN: NMANE02    2019/03/25 CHK'D: NMANE02    2019/07/09 APPR: MRAMAKRISHNA    2019/07/09		MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
	4 PLACES ±    ± 3 PLACES ±    ± 2 PLACES ± 0.2 ± 1 PLACE ±    ± 0 PLACES ±    ±		INITIAL REVISION: DRWN: GMENARLY    2015/04/15 APPR: KHLIM    2015/06/29				PRODUCT CUSTOMER DRAWING	
	ANGULAR TOL ± 3.0°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION		DOCUMENT NUMBER: <b>SD-87831-0001</b> DOC TYPE: PSD    DOC PART: 001    REVISION: A16	
			DRAWING: <b>A3-SIZE</b> SERIES: <b>87831</b>		MATERIAL NUMBER: <b>SEE TABLE</b> CUSTOMER: <b>GENERAL MARKET</b>		SHEET NUMBER: <b>1 OF 14</b>	

# 4 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)


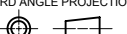
SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: ADDED BTB DIST.					
	DIMENSION UNITS	SCALE						
▽ = 0	mm	NTS			MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)							
▽ = 0		MM	INCH			PRODUCT CUSTOMER DRAWING		
▽ = 0	4 PLACES ±							
▽ = 0	3 PLACES ±					DOCUMENT NUMBER <b>SD-87831-0001</b>		
▽ = 0	2 PLACES ±	0.2						
▽ = 0	1 PLACE ±					DOC PART 001		
▽ = 0	0 PLACES ±							
▽ = 0	ANGULAR TOL ±	3.0°			EC NO: 619055 DRWN: NMANE02 2019/03/25 CHK'D: NMANE02 2019/07/09 APPR: MRAMAKRISHNA 2019/07/09			
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING				SERIES
▽ = 0				A3-SIZE	87831	SEE TABLE	GENERAL MARKET	2 OF 14

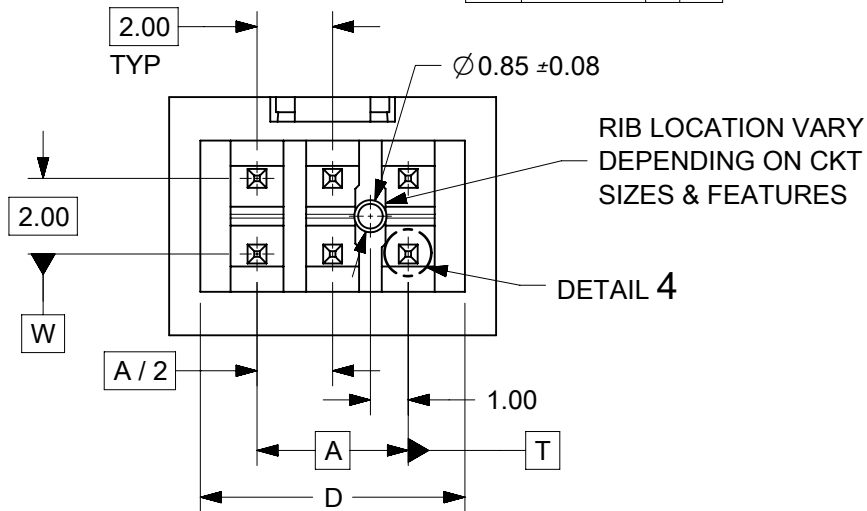
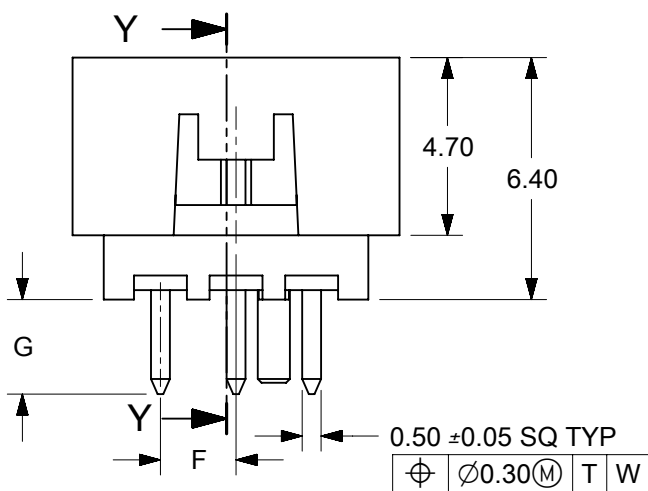
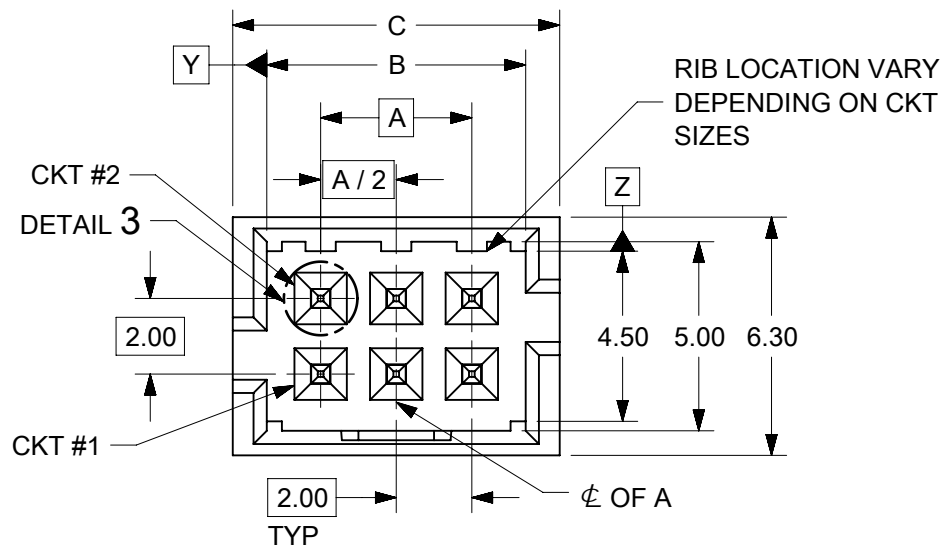
4 CIRCUITS

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						N.A	N.A		N.A	N.A	N.A	1.00	2.50	3.60±0.20
	87831-0442	N.A	87831-5565	3																				
	87831-5141	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						N.A	N.A		N.A	N.A	N.A	1.00	3.50	3.60±0.20
	87831-5142	N.A	N.A	3																				
	87831-6141	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						N.A	N.A		N.A	N.A	N.A	1.00	2.80	3.60±0.20
	87831-6142	N.A	N.A	3																				
	87831-0443	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A						N.A	N.A		N.A	N.A	N.A	1.00	2.50	3.60±0.20
	87831-0444	N.A	N.A	3																				

PLATING OPTIONS:

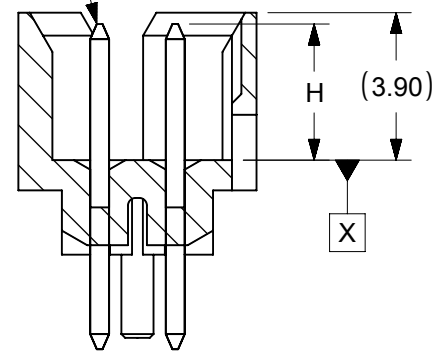
- 1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. 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.

SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: ADDED BTB DIST.		
	DIMENSION UNITS	SCALE			
▽ = 0	mm	NTS			2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)				PRODUCT CUSTOMER DRAWING
▽ = 0		MM	INCH		
▽ = 0	4 PLACES ±				DOCUMENT NUMBER
▽ = 0	3 PLACES ±				
▽ = 0	2 PLACES ±	0.2			DOC TYPE
▽ = 0	1 PLACE ±				PSD
▽ = 0	0 PLACES ±				DOC PART
▽ = 0	ANGULAR TOL ±	3.0°			001
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING	REVISION
▽ = 0				A3-SIZE	A16
		SERIES	MATERIAL NUMBER	CUSTOMER	SHEET NUMBER
		87831	SEE TABLE	GENERAL MARKET	3 OF 14

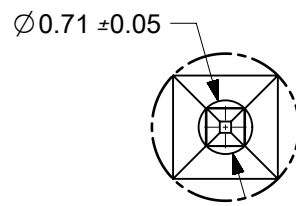


**6 CIRCUITS**

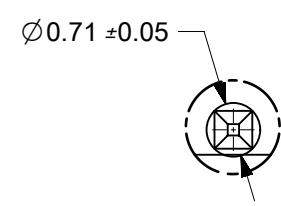
0.50±0.05 SQ TYP  
 Ø0.30(M) X Y(M) Z(M)  
 AT TIP BOTH ENDS



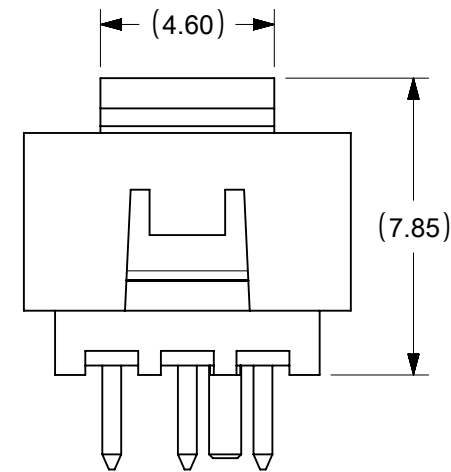
SECTION Y-Y



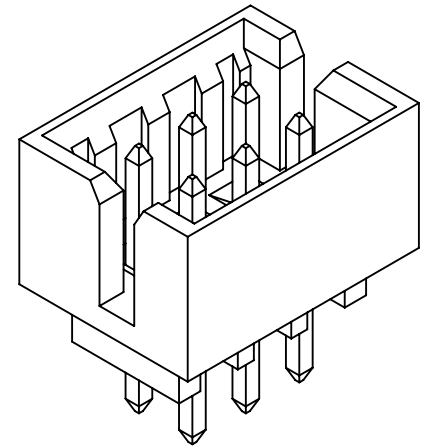
DETAIL 3



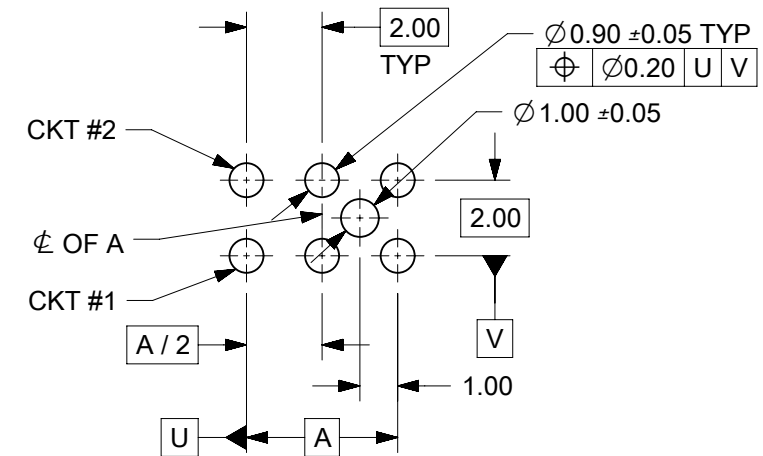
DETAIL 4



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)


SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: ADDED BTB DIST.	
	DIMENSION UNITS	SCALE		
▽ = 0	mm	NTS		
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)			
▽ = 0		MM	INCH	
▽ = 0	4 PLACES ±			
▽ = 0	3 PLACES ±			
▽ = 0	2 PLACES ±	0.2		
▽ = 0	1 PLACE ±			
▽ = 0	0 PLACES ±			
■ = 0	ANGULAR TOL ±	3.0°		
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING SERIES
				A3-SIZE 87831
		EC NO: 619055		 MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER PRODUCT CUSTOMER DRAWING
		DRWN: NMANE02	2019/03/25	
		CHK'D: NMANE02	2019/07/09	
		APPR: MRAMAKRISHNA 2019/07/09		DOCUMENT NUMBER
		INITIAL REVISION:		DOC TYPE
		DRWN: GMENARLY	2015/04/15	DOC PART
		APPR: KHLIM	2015/06/29	REVISION
		SD-87831-0001		PSD 001 A16
		MATERIAL NUMBER	CUSTOMER	SHEET NUMBER
		SEE TABLE	GENERAL MARKET	4 OF 14

6 CIRCUITS

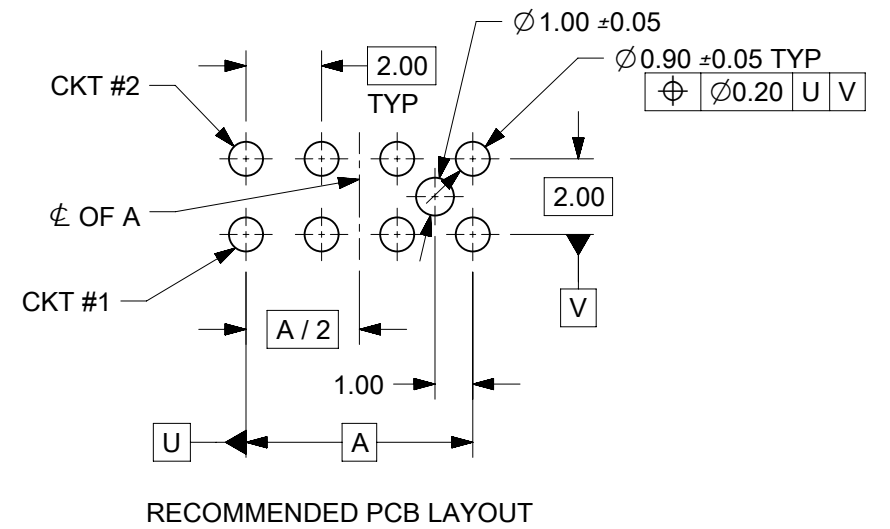
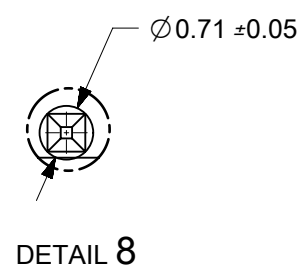
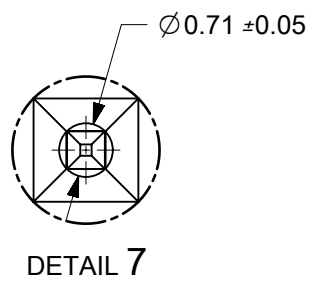
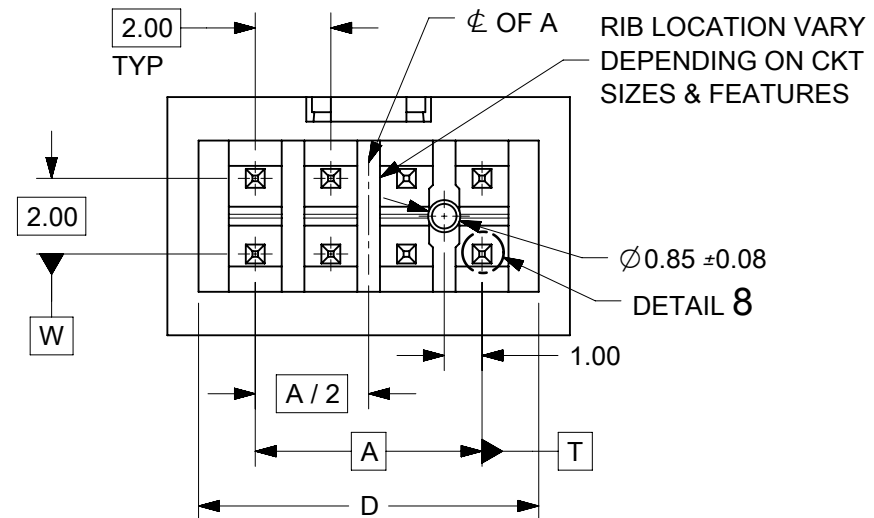
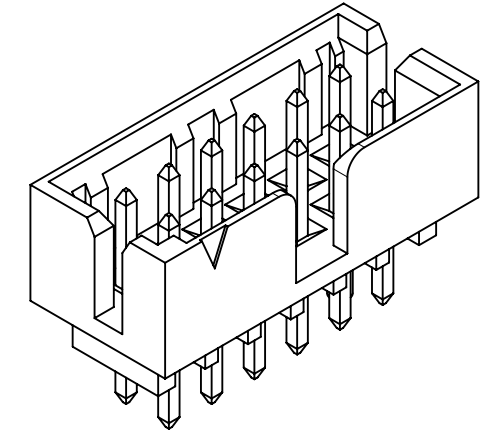
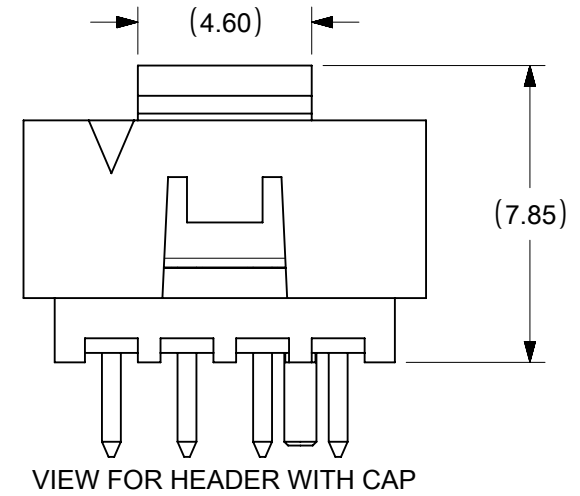
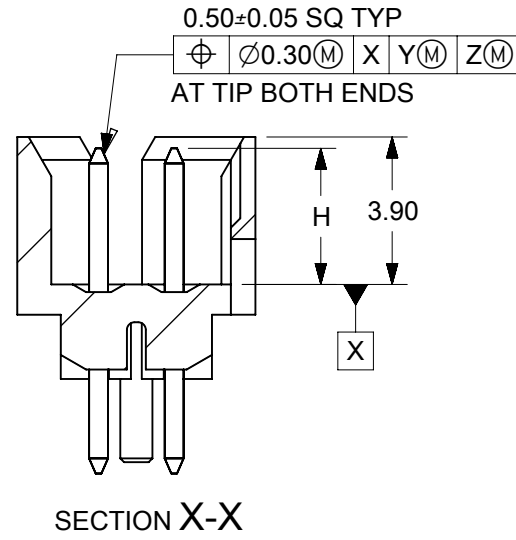
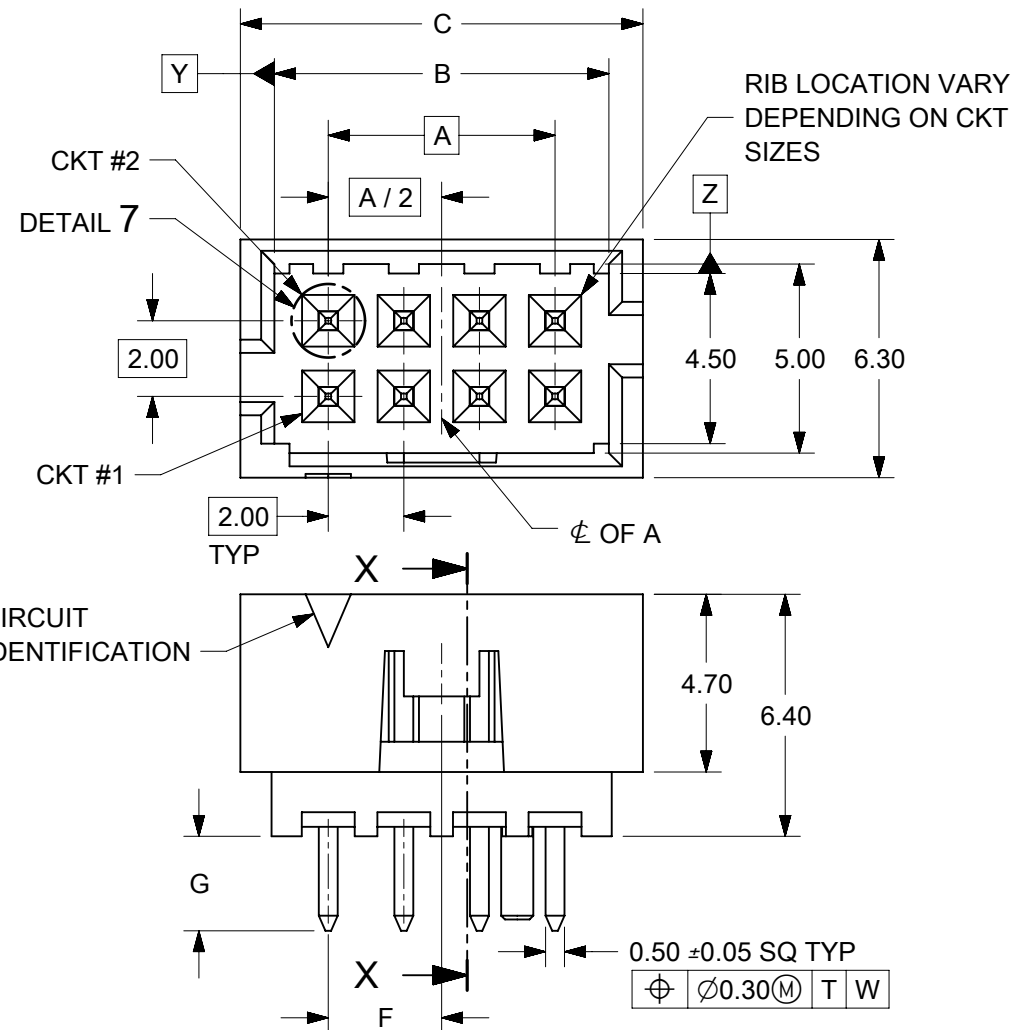
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION													
					DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H						
6	87831-0619	N.A	N.A	1	N.A	N.A	YES	N.A	N.A	N.A	4.00	6.85	8.65	7.00	N.A	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																				
	87831-0628	N.A	N.A	2	N.A	N.A	YES	N.A	N.A	YES						N.A	N.A		N.A	2.50	N.A	2.50	N.A	2.50
	87831-0629	N.A	N.A	3																				
	87831-0641	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						N.A	N.A		N.A	2.50	N.A	2.80	N.A	2.50
	87831-0642	N.A	87831-5552	3																				
	87831-5241	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						N.A	N.A		N.A	2.50	N.A	2.50	N.A	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	N.A		N.A	2.50	N.A	2.50	N.A	2.50
	87831-6242	N.A	N.A	3																				
	87831-0643	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A						N.A	N.A		N.A	2.50	N.A	2.50	N.A	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						YES	N.A		N.A	2.50	N.A	2.50	N.A	2.50
	87831-0646	N.A	N.A	3																				
	87831-0632	N.A	N.A	2	N.A	YES	YES	N.A	N.A	YES						N.A	N.A		N.A	2.50	N.A	2.50	N.A	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	N.A	N.A	N.A	2.50	N.A	2.50	N.A	3.60±0.20						
87831-5136	N.A	N.A	4																					

PLATING OPTIONS:

- 1 - 0.05-0.13µm/2-5µm GOLD IN CONTACT AREA AND 1.88µm/75µm MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µm MIN. NICKEL OVERALL.
- 2 - 0.38µm/15µm GOLD IN CONTACT AREA AND 1.88µm/75µm MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µm MIN. NICKEL OVERALL.
- 3 - 0.76µm/30µm GOLD IN CONTACT AREA AND 1.88µm/75µm MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µm MIN. NICKEL OVERALL.
- 4 - 2.50µm/100µm MIN. MATTE TIN OVER 1.25µm/50µm MIN. NICKEL OVERALL.

SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: ADDED BTB DIST.			
	DIMENSION UNITS	SCALE	GENERAL TOLERANCES (UNLESS SPECIFIED)			
▽ = 0	mm	NTS	EC NO: 619055		MILLIGRID	
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DRWN: NMANE02 2019/03/25		2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER	
▽ = 0	MM INCH		CHK'D: NMANE02 2019/07/09		PRODUCT CUSTOMER DRAWING	
▽ = 0	4 PLACES ±	±	APPR: MRAMAKRISHNA 2019/07/09		DOCUMENT NUMBER	
▽ = 0	3 PLACES ±	±	INITIAL REVISION:		DOC TYPE DOC PART REVISION	
▽ = 0	2 PLACES ±	0.2 ±	DRWN: GMENARLY 2015/04/15		SD-87831-0001 PSD 001 A16	
▽ = 0	1 PLACE ±	±	APPR: KHLIM 2015/06/29		MATERIAL NUMBER CUSTOMER	
▽ = 0	0 PLACES ±	±	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE GENERAL MARKET	
▽ = 0	ANGULAR TOL ± 3.0°		THIRD ANGLE PROJECTION		SHEET NUMBER	
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DRAWING SERIES		5 OF 14	
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		A3-SIZE 87831			

# 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)

SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: ADDED BTB DIST.			
	DIMENSION UNITS	SCALE				
▽ = 0	mm	NTS			MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER	
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)					
▽ = 0		MM	INCH			PRODUCT CUSTOMER DRAWING
▽ = 0	4 PLACES ±	±	±			
▽ = 0	3 PLACES ±	±	±			DOCUMENT NUMBER SD-87831-0001
▽ = 0	2 PLACES ±	0.2	±			
▽ = 0	1 PLACE ±	±	±			DOC TYPE PSD
▽ = 0	0 PLACES ±	±	±			
▽ = 0	ANGULAR TOL	± 3.0°			DOC PART 001	
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING	SERIES	REVISION
▽ = 0				A3-SIZE	87831	A16
DOCUMENT STATUS		P1	RELEASE DATE	2019/07/09	06:47:12	SHEET NUMBER 6 OF 14

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		
	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	N.A	2.50	
	87831-0829	N.A	N.A	3															
	87831-0841	N.A	87831-5551	2	N.A	YES	YES	N.A	N.A	N.A						N.A	N.A	3.00	2.50
	87831-0842	N.A	N.A	3															
	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	N.A	3.50	
	87831-5442	N.A	N.A	3															
	87831-5541	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						N.A	N.A	2.80	
	87831-5542	N.A	N.A	3															
	87831-5741	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						N.A	N.A	4.70	
	87831-5742	N.A	N.A	3															
	87831-0832	N.A	N.A	2	N.A	YES	YES	N.A	N.A	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	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.

SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
	DIMENSION UNITS	SCALE
▽ = 0	mm	NTS
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)	
▽ = 0	MM	INCH
▽ = 0	4 PLACES ±	±
▽ = 0	3 PLACES ±	±
▽ = 0	2 PLACES ±	0.2 ±
▽ = 0	1 PLACE ±	±
▽ = 0	0 PLACES ±	±
▣ = 0	ANGULAR TOL ± 3.0°	
▣ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	
▽ = 0	THIRD ANGLE PROJECTION	
CURRENT REV DESC: ADDED BTB DIST.		EC NO: 619055
		DRWN: NMANE02 2019/03/25
		CHK'D: NMANE02 2019/07/09
		APPR: MRAMAKRISHNA 2019/07/09
INITIAL REVISION:		DRWN: GMENARLY 2015/04/15
		APPR: KHLIM 2015/06/29
DOCUMENT NUMBER		DOC TYPE
SD-87831-0001		PSD
DOC PART		REVISION
001		A16
MATERIAL NUMBER		CUSTOMER
SEE TABLE		GENERAL MARKET
DRAWING		SHEET NUMBER
A3-SIZE		7 OF 14

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	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	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	N.A	2																				
	87831-1021	N.A	87831-5562	3																				
	87831-1036	N.A	N.A	4																				
	87831-1010	N.A	87831-5561	2																				
	87831-1011	N.A	N.A	3																				
	87831-1028	N.A	N.A	2	N.A	N.A	YES	N.A	YES	YES						N.A	N.A		N.A	N.A	N.A	4.00	2.50	
	87831-1029	N.A	87831-5557	3																				
	87831-1035	N.A	N.A	3																				
	87831-1041	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						N.A	N.A		N.A	N.A	N.A	N.A	N.A	2.50
	87831-1042	N.A	87831-5553	3																				
	87831-1032	N.A	N.A	2																				
	87831-1043	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A						N.A	N.A		N.A	N.A	N.A	N.A	N.A	2.50
	87831-1044	N.A	N.A	3																				
	87831-1045	N.A	N.A	2																				
87831-1046	N.A	N.A	3	N.A	YES	N.A	YES	N.A	YES	N.A	N.A	N.A	N.A	N.A	N.A	N.A	2.50							
87831-1219	N.A	N.A	1																					
87831-1220	N.A	87831-5556	2																					
87831-1221	N.A	N.A	3	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							
87831-1236	N.A	N.A	4																					
87831-1228	N.A	N.A	2																					
87831-1229	N.A	87831-5558	3																					
87831-1258	N.A	(A13) 87831-5567	2																					
87831-1241	N.A	N.A	2																					
87831-1242	N.A	N.A	3	N.A	YES	YES	N.A	N.A	N.A						N.A	N.A		N.A	N.A	N.A	N.A	N.A	2.50	
87831-1255	87831-1256	N.A	2																					
87831-1232	N.A	N.A	2																					
87831-1243	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A						N.A	N.A		N.A	N.A	N.A	N.A	N.A	2.50	
87831-1244	N.A	N.A	3																					
87831-1245	N.A	N.A	2																					
87831-1246	N.A	N.A	3	N.A	YES	N.A	YES	N.A	YES						N.A	N.A		N.A	N.A	N.A	N.A	N.A	2.50	
87831-1255	87831-1256	N.A	2																					
87831-1232	N.A	N.A	2																					

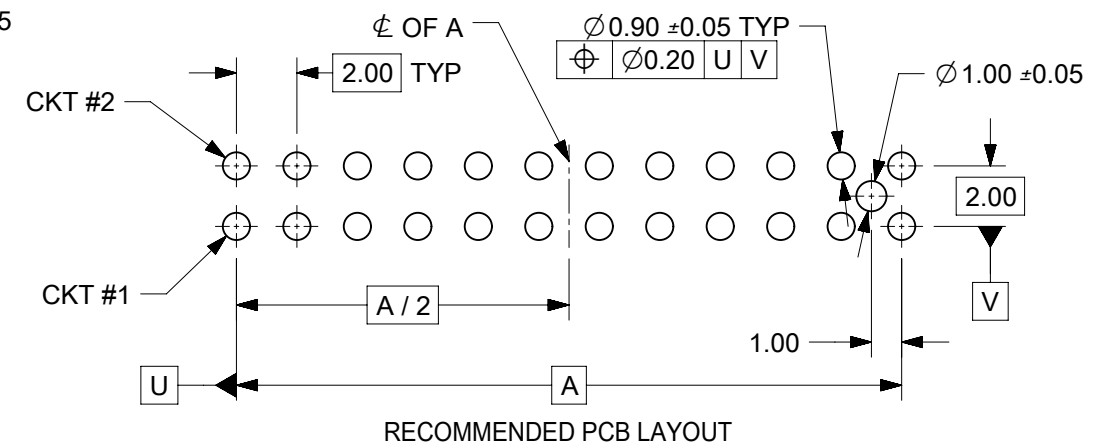
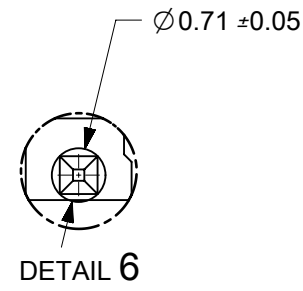
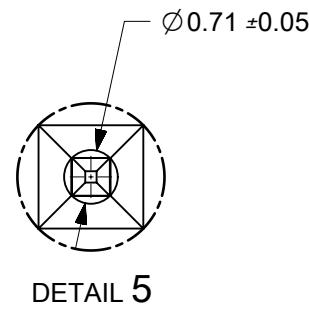
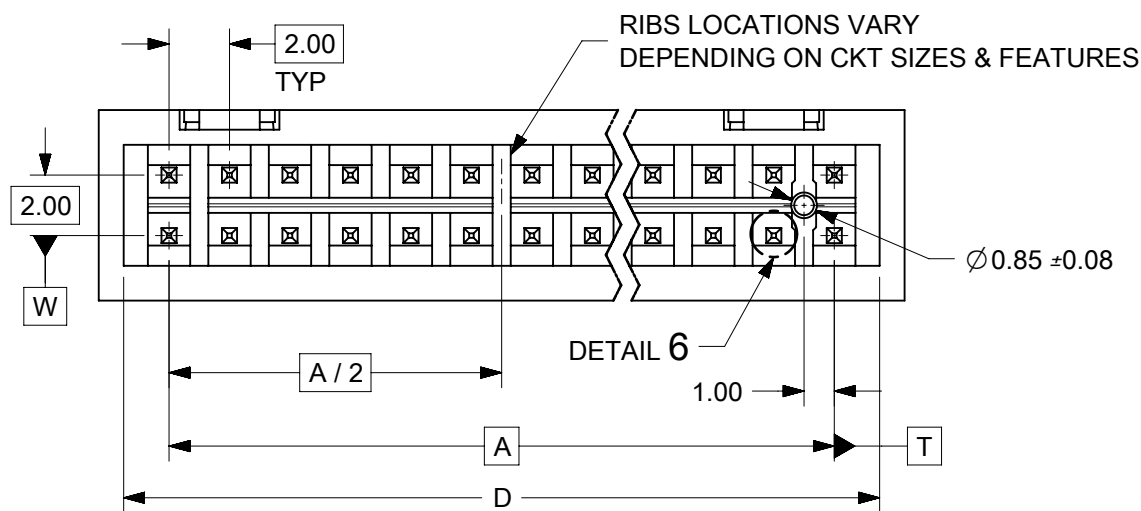
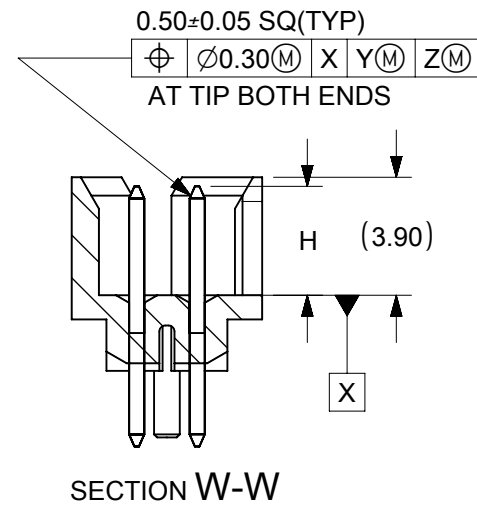
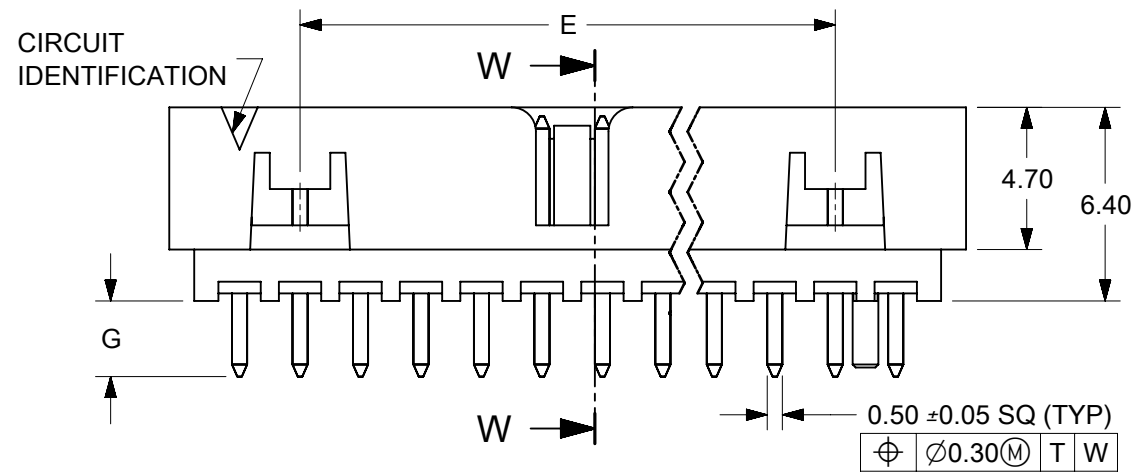
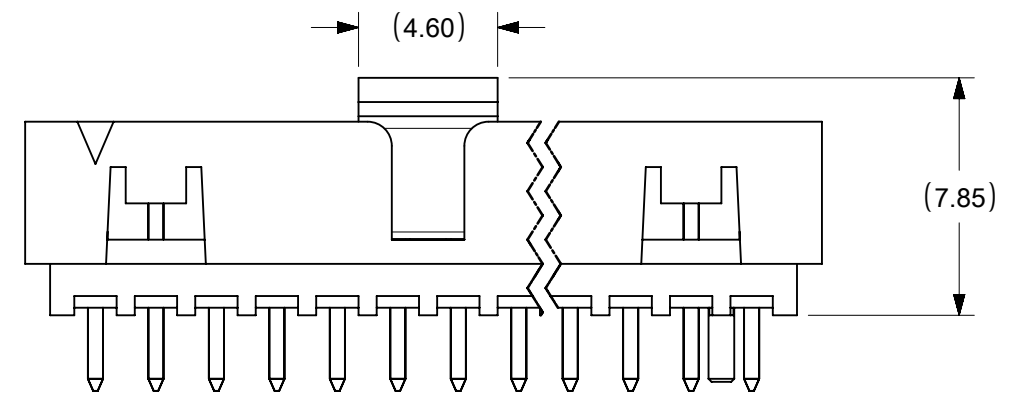
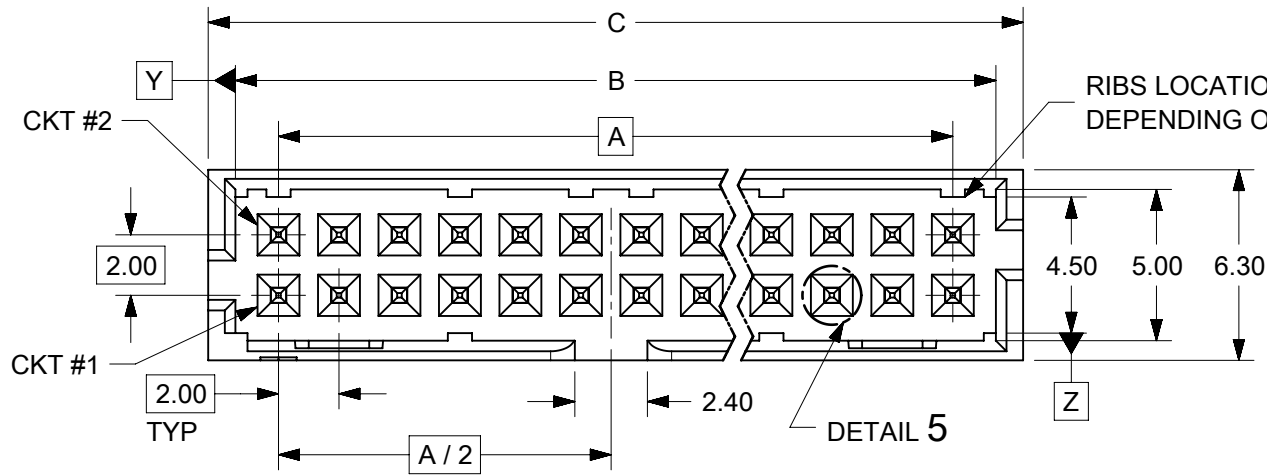
PLATING OPTIONS:

- 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.

SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
	DIMENSION UNITS	SCALE
▽ = 0	mm	NTS
▽ = 0	CURRENT REV DESC: ADDED BTB DIST.	
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)	
▽ = 0	MM	INCH
▽ = 0	4 PLACES ±	±
▽ = 0	3 PLACES ±	±
▽ = 0	2 PLACES ±	0.2 ±
▽ = 0	1 PLACE ±	±
▽ = 0	0 PLACES ±	±
▽ = 0	ANGULAR TOL ±	3.0°
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	
▽ = 0	THIRD ANGLE PROJECTION	DRAWING
▽ = 0	SERIES	MATERIAL NUMBER
▽ = 0	A3-SIZE	87831
▽ = 0	EC NO: 619055	DRWN: NMANE02 2019/03/25
▽ = 0	CHK'D: NMANE02 2019/07/09	APPR: MRAMAKRISHNA 2019/07/09
▽ = 0	INITIAL REVISION:	DRWN: GMENARLY 2015/04/15
▽ = 0	APPR: KHLIM 2015/06/29	APPR: KHLIM 2015/06/29
▽ = 0	PRODUCT CUSTOMER DRAWING	
▽ = 0	DOCUMENT NUMBER	DOC TYPE   DOC PART   REVISION
▽ = 0	SD-87831-0001	PSD   001   A16
▽ = 0	CUSTOMER	SHEET NUMBER
▽ = 0	GENERAL MARKET	8 OF 14



# 14 TO 50 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)

SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: ADDED BTB DIST.		<b>molex</b>
	DIMENSION UNITS	SCALE			
▽ = 0	mm	NTS			2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)				PRODUCT CUSTOMER DRAWING
▽ = 0		MM	INCH	EC NO: 619055	DOCUMENT NUMBER
▽ = 0	4 PLACES ±	±		DRWN: NMANE02 2019/03/25	DOC TYPE
▽ = 0	3 PLACES ±	±		CHK'D: NMANE02 2019/07/09	DOC PART
▽ = 0	2 PLACES ±	0.2	±	APPR: MRAMAKRISHNA 2019/07/09	REVISION
▽ = 0	1 PLACE ±	±		INITIAL REVISION:	SD-87831-0001
▽ = 0	0 PLACES ±	±		DRWN: GMENARLY 2015/04/15	PSD
▽ = 0	ANGULAR TOL ±	3.0°		APPR: KHLIM 2015/06/29	001
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	THIRD ANGLE PROJECTION		DRAWING	A16
▽ = 0				SERIES	9 OF 14
				MATERIAL NUMBER	
				CUSTOMER	
				SEE TABLE	
				GENERAL MARKET	

### 14 TO 20 CIRCUITS

CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION							
					DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H
14	87831-1419	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	12.00	14.85	16.65	15.00	8.00	N.A	2.50	3.60±0.20
	87831-1420	87831-1430	87831-5554	2														
	87831-1421	N.A	87831-5560	3														
	87831-1436	N.A	N.A	4														
	87831-1428	N.A	(A14) 87831-5564	2	YES	N.A	YES	N.A	YES	YES								
	87831-1429	N.A	87831-5563	3														
	87831-1435	N.A	N.A	3														
	87831-1410	N.A	N.A	2														
87831-1411	N.A	N.A	3	YES	N.A	YES	N.A	YES	N.A	3.50								
16	87831-1619	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	14.00	16.85	18.65	17.00	10.00	N.A	2.50	3.60±0.20
	87831-1620	N.A	N.A	2														
	87831-1621	N.A	N.A	3														
	87831-1636	N.A	N.A	4	YES	N.A	YES	N.A	YES	YES								
	87831-1628	N.A	N.A	2														
	87831-1629	N.A	87831-5559	3														
	87831-1635	N.A	N.A	3														

**PLATING OPTIONS:**

- 1 - 0.05-0.13µm/2-5µm GOLD IN CONTACT AREA AND 1.88µm/75µm MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µm MIN. NICKEL OVERALL.
- 2 - 0.38µm/15µm GOLD IN CONTACT AREA AND 1.88µm/75µm MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µm MIN. NICKEL OVERALL.
- 3 - 0.76µm/30µm GOLD IN CONTACT AREA AND 1.88µm/75µm MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µm MIN. NICKEL OVERALL.
- 4 - 2.50µm/100µm MIN. MATTE TIN OVER 1.25µm/50µm MIN. NICKEL OVERALL.


SYMBOLS ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	CURRENT REV DESC: ADDED BTB DIST.	molex			
	DIMENSION UNITS: <b>mm</b> SCALE: <b>NTS</b> GENERAL TOLERANCES (UNLESS SPECIFIED)	EC NO: 619055 DRWN: NMANE02    2019/03/25 CHK'D: NMANE02    2019/07/09 APPR: MRAMAKRISHNA    2019/07/09		MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER		
	4 PLACES ±    ± 3 PLACES ±    ± 2 PLACES ± 0.2 ± 1 PLACE ±    ± 0 PLACES ±    ± ANGULAR TOL ± 3.0°	INITIAL REVISION: DRWN: GMENARLY    2015/04/15 APPR: KHLIM    2015/06/29		PRODUCT CUSTOMER DRAWING		
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	THIRD ANGLE PROJECTION 	DRAWING: <b>A3-SIZE</b> SERIES: <b>87831</b>	MATERIAL NUMBER: <b>SEE TABLE</b> CUSTOMER: <b>GENERAL MARKET</b>	DOCUMENT NUMBER: <b>SD-87831-0001</b> DOC TYPE: <b>PSD</b> DOC PART: <b>001</b> REVISION: <b>A16</b>	SHEET NUMBER: <b>10 OF 14</b>

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														
	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														
	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															
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														
	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														
	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														
	87831-3029	N.A	N.A	N.A	3														
	87831-3035	N.A	N.A	N.A	3														
	87831-3010	87831-3030	87831-3050	N.A	2														

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.


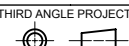
SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION										
	DIMENSION UNITS		SCALE		CURRENT REV DESC: ADDED BTB DIST.						
	mm		NTS		 MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER PRODUCT CUSTOMER DRAWING						
	GENERAL TOLERANCES (UNLESS SPECIFIED)										
▽ = 0	4 PLACES ±	MM	INCH	EC NO: 619055		DRWN: NMANE02 2019/03/25					
▽ = 0	3 PLACES ±			DRWN: NMANE02 2019/07/09		CHK'D: NMANE02 2019/07/09					
▽ = 0	2 PLACES ± 0.2			APPR: MRAMAKRISHNA 2019/07/09		INITIAL REVISION:					
▽ = 0	1 PLACE ±			DRWN: GMENARLY 2015/04/15		DOCUMENT NUMBER					
☒ = 0	ANGULAR TOL ± 3.0°			APPR: KHLIM 2015/06/29		SD-87831-0001					
■ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	THIRD ANGLE PROJECTION		DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER	
▽ = 0		A3-SIZE		87831		SEE TABLE		GENERAL MARKET		SHEET NUMBER	
										11 OF 14	

32 TO 40 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
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	
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	
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	38.85	40.65	39.00	32.00	N.A	2.50	3.60±0.20
	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	
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	3.60±0.20
	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.

SYMBOLS	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: ADDED BTB DIST.					
▽ = 0	mm	NTS		 MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER						
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)									
▽ = 0			MM	INCH	EC NO: 619055					
▽ = 0	4 PLACES	±			DRWN: NMANE02 2019/03/25					
▽ = 0	3 PLACES	±			CHK'D: NMANE02 2019/07/09					
▽ = 0	2 PLACES	±	0.2		APPR: MRAMAKRISHNA 2019/07/09					
▽ = 0	1 PLACE	±			INITIAL REVISION:					
☒ = 0	0 PLACES	±			DRWN: GMENARLY 2015/04/15					
■ = 0	ANGULAR TOL ± 3.0°			APPR: KHLIM 2015/06/29						
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			THIRD ANGLE PROJECTION	DRAWING	SERIES	MATERIAL NUMBER	CUSTOMER	SHEET NUMBER	
▽ = 0					A3-SIZE	87831	SEE TABLE	GENERAL MARKET	12 OF 14	

DOCUMENT STATUS	P1	RELEASE DATE	2019/07/09	06:47:12
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## 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	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION							
					DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H
42	87831-4219	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	2														
	87831-4221	N.A	N.A	3														
	87831-4236	N.A	N.A	4														
	87831-4228	N.A	N.A	2														
	87831-4229	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							2.50	
44	87831-4419	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	2														
	87831-4421	N.A	N.A	3														
	87831-4436	N.A	N.A	4														
	87831-4428	N.A	N.A	2														
	87831-4429	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-4435	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							3.50	
46	87831-4619	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	2														
	87831-4621	N.A	N.A	3														
	87831-4636	N.A	N.A	4														
	87831-4628	N.A	N.A	2														
	87831-4629	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							2.50	
48	87831-4819	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	2														
	87831-4821	N.A	N.A	3														
	87831-4836	N.A	N.A	4														
	87831-4828	N.A	N.A	2														
	87831-4829	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							2.50	
50	87831-5019	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	2														
	87831-5021	N.A	N.A	3														
	87831-5036	N.A	N.A	4														
	87831-5028	N.A	N.A	2														
	87831-5029	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-5035	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.
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- 4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.

<b>SYMBOLS</b> ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION CURRENT REV DESC: ADDED BTB DIST.	SCALE <b>mm NTS</b>	 MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER PRODUCT CUSTOMER DRAWING	EC NO: 619055 DRWN: NMANE02 2019/03/25 CHK'D: NMANE02 2019/07/09 APPR: MRAMAKRISHNA 2019/07/09	INITIAL REVISION: DRWN: GMENARLY 2015/04/15 APPR: KHLIM 2015/06/29	DOCUMENT NUMBER <b>SD-87831-0001</b>	DOC TYPE PSD	DOC PART 001	REVISION A16	
	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 
DIMENSION UNITS		DRAWING <b>A3-SIZE</b>	SERIES <b>87831</b>	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	

<b>SYMBOLS</b> = 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0	DIMENSION UNITS <b>mm</b> <b>NTS</b>	SCALE <b>NTS</b>	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																			
	GENERAL TOLERANCES (UNLESS SPECIFIED)		CURRENT REV DESC: ADDED BTB DIST.		 MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER																	
	<table border="1"> <thead> <tr> <th></th> <th>MM</th> <th>INCH</th> </tr> </thead> <tbody> <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> </tbody> </table>			MM			INCH	4 PLACES ±			3 PLACES ±			2 PLACES ±	0.2		1 PLACE ±			0 PLACES ±		
		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 																		
DRWN: DRWN BY APPR: APPR BY		INITIAL REVISION:		DOCUMENT NUMBER <b>SD-87831-0001</b>																		
SERIES <b>A3-SIZE</b>		MATERIAL NUMBER <b>87831</b>		DOC TYPE DOC PART REVISION <b>PSD 001 A16</b>																		
CUSTOMER <b>GENERAL MARKET</b>		SHEET NUMBER <b>14 OF 14</b>																				