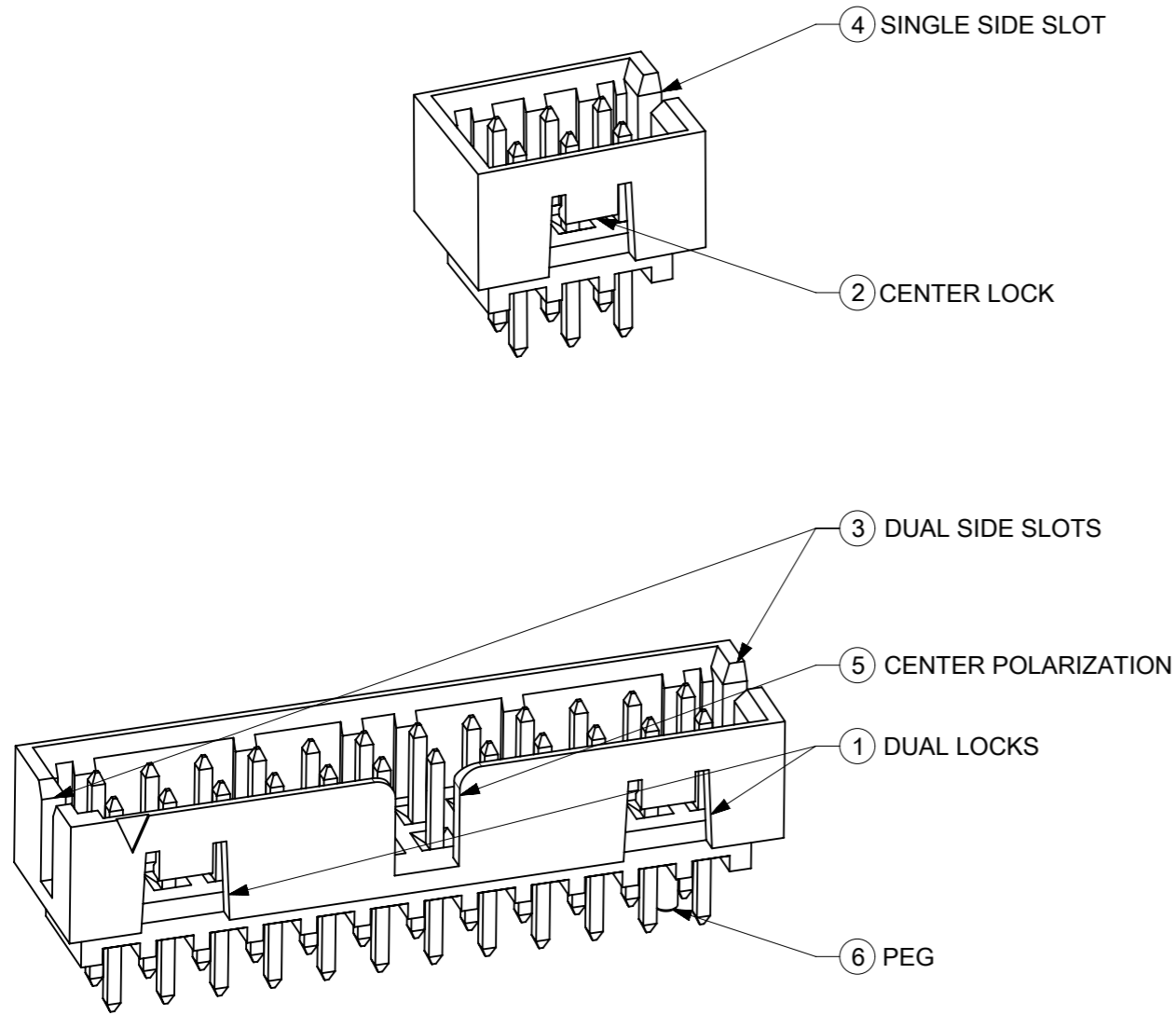


# FEATURES SELECTION GUIDE



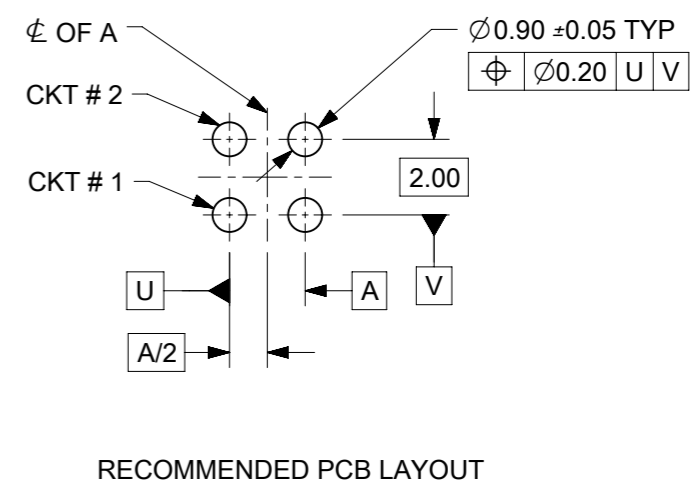
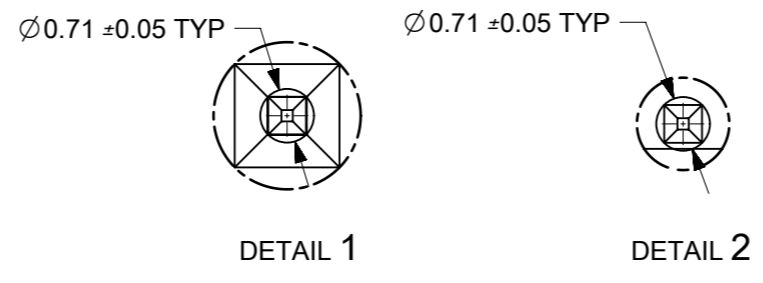
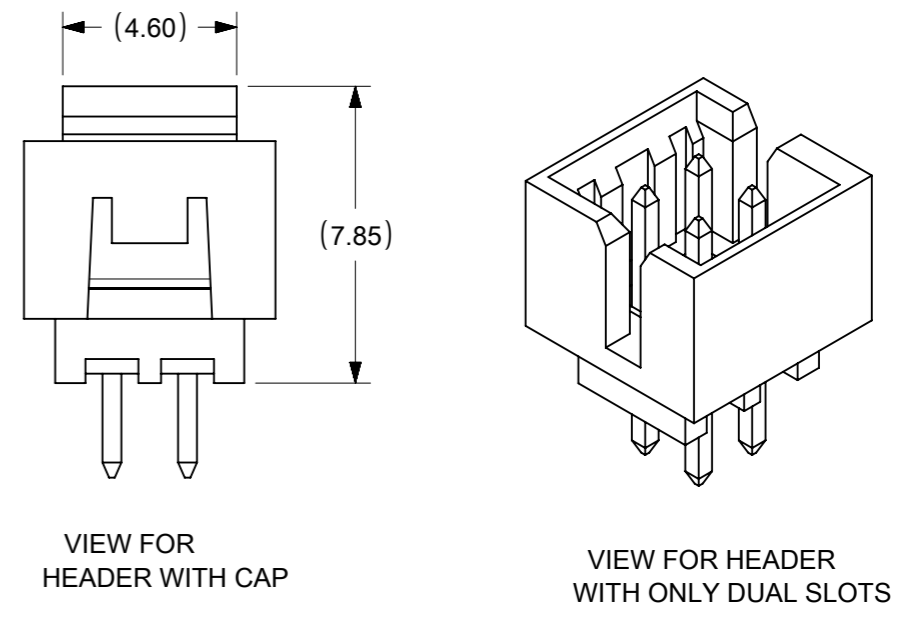
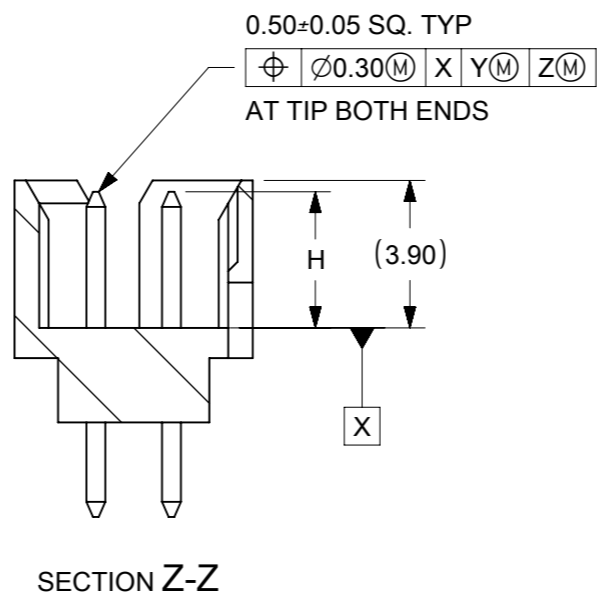
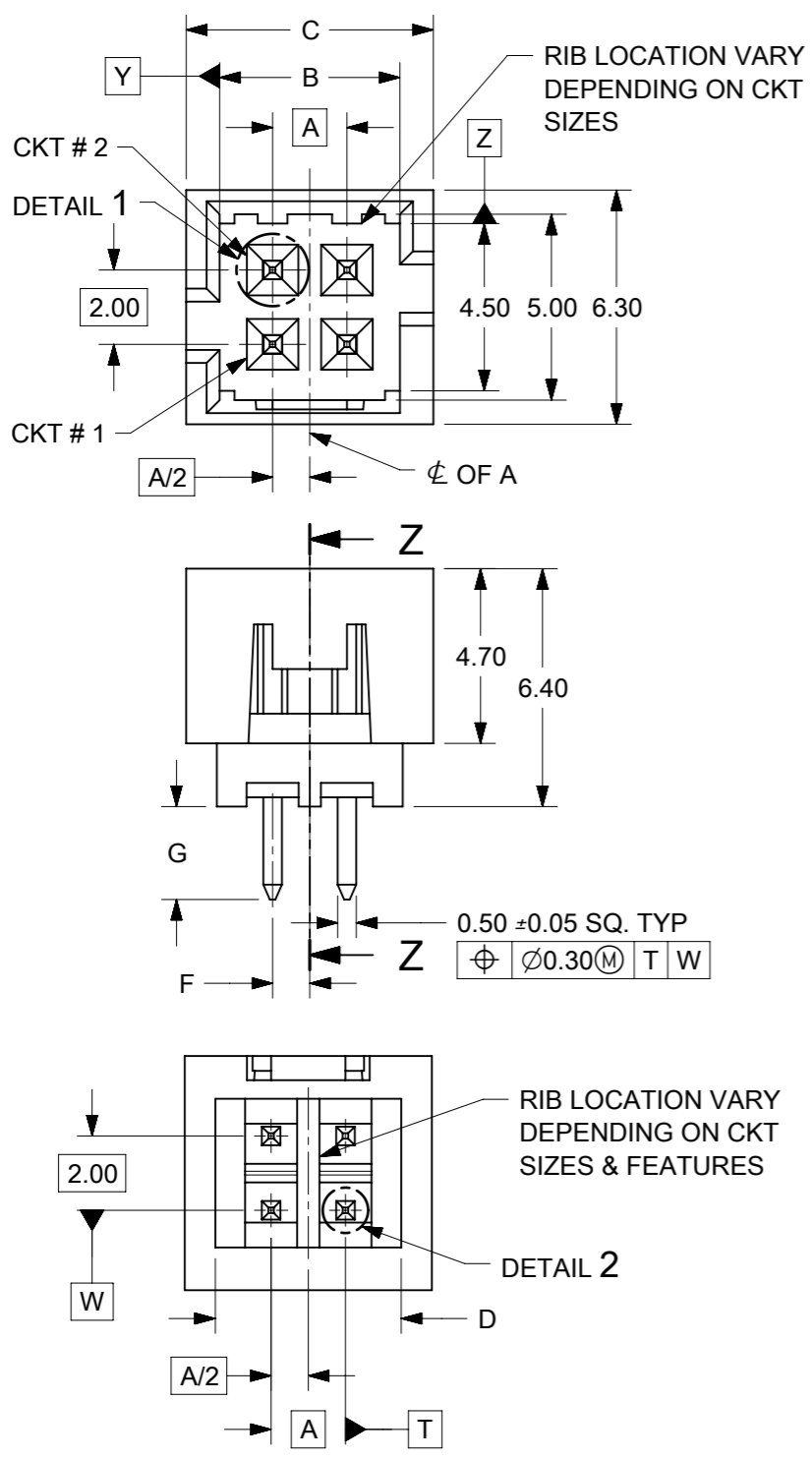
CIRCUIT SIZE	FRICTION LOCKS		SIDE SLOTS		⑤ CENTER POLARIZATION	⑥ PEG	SHEET NO
	① DUAL	② CENTER	③ DUAL	④ SINGLE			
4	N.A	N.A	YES	N.A	N.A	N.A	2 - 3
	N.A	YES	YES	N.A	N.A	N.A	
	N.A	YES	N.A	YES	N.A	N.A	
6	N.A	N.A	YES	N.A	N.A	N.A	4 - 5
	N.A	N.A	YES	N.A	N.A	YES	
	N.A	YES	YES	N.A	N.A	N.A	
	N.A	YES	YES	N.A	N.A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

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)	mm      NTS MM      INCH	EC NO: 619055 DRWN: NMANE02      2019/03/25 CHK'D: NMANE02      2019/07/09 APPR: MRAMAKRISHNA      2019/07/09		
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	PRODUCT CUSTOMER DRAWING DOCUMENT NUMBER SD-87831-0001
DOCUMENT STATUS    P1    RELEASE DATE    2019/07/09    06:47:12	MATERIAL NUMBER SEE TABLE	CUSTOMER GENERAL MARKET	DOC TYPE    DOC PART    REVISION PSD    001    A16	SHEET NUMBER 1 OF 14	

# 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			2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)				PRODUCT CUSTOMER DRAWING
▽ = 0		MM	INCH		DOCUMENT NUMBER
▽ = 0	4 PLACES ±				SD-87831-0001
▽ = 0	3 PLACES ±				DOC TYPE
▽ = 0	2 PLACES ±	0.2			PSD
▽ = 0	1 PLACE ±				DOC PART
▽ = 0	0 PLACES ±				001
▽ = 0	ANGULAR TOL ±	3.0°			REVISION
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING	A16
▽ = 0				SERIES	
				87831	SHEET NUMBER
				SEE TABLE	2 OF 14
				CUSTOMER	
				GENERAL MARKET	

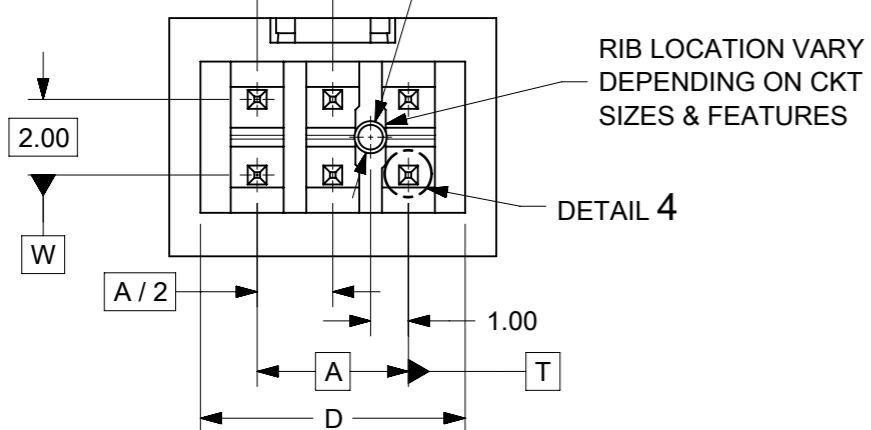
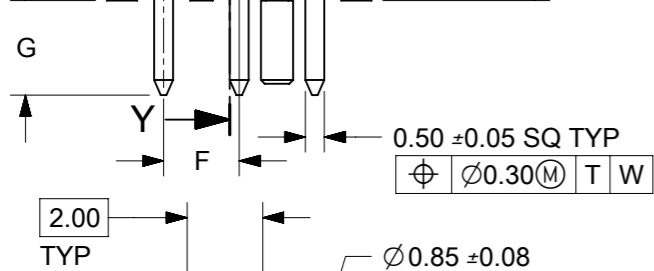
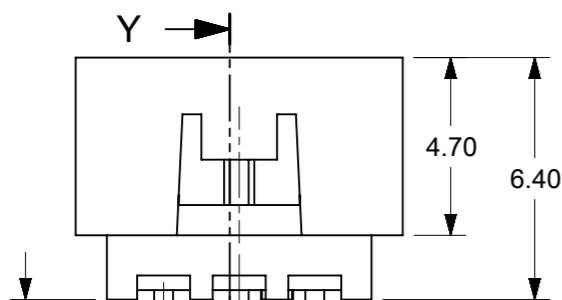
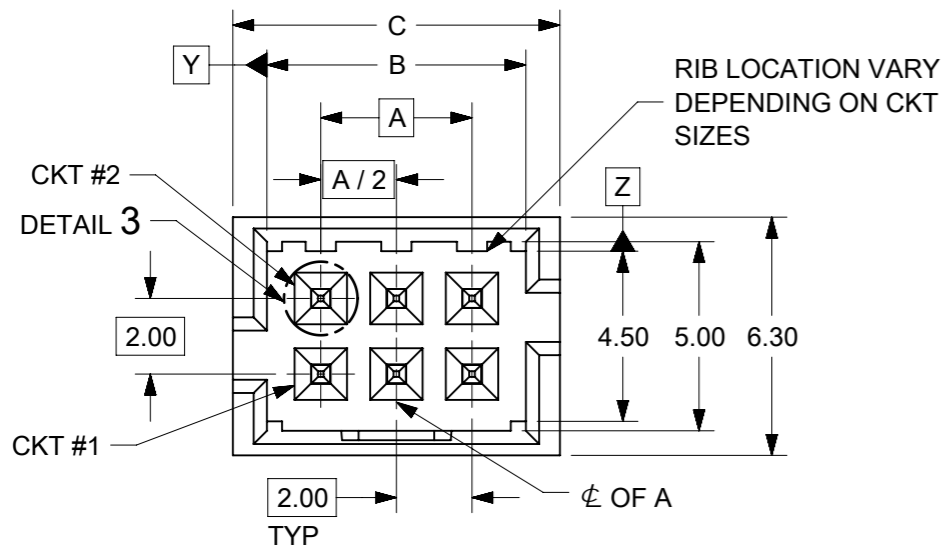
4 CIRCUITS

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:

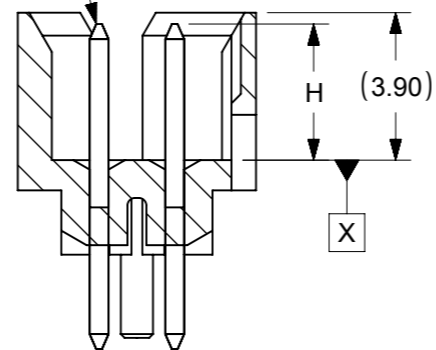
- 1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 3 - 0.76µm/30µin GOLD IN CONTACT 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														
	DIMENSION UNITS		SCALE		CURRENT REV DESC: ADDED BTB DIST.										
	mm		NTS		 MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER										
	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	
				A3-SIZE		87831		SEE TABLE		GENERAL MARKET		3 OF 14			

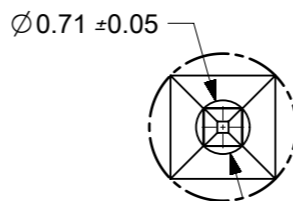


**6 CIRCUITS**

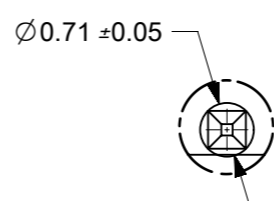
0.50±0.05 SQ TYP  
 $\phi$  Ø0.30(M) X Y(M) Z(M)  
 AT TIP BOTH ENDS



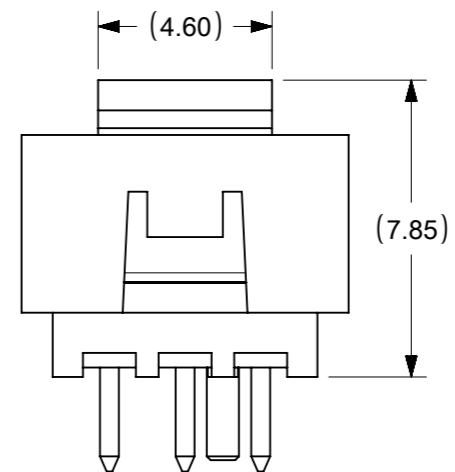
SECTION Y-Y



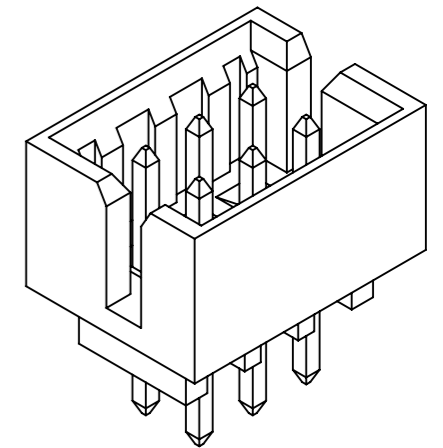
DETAIL 3



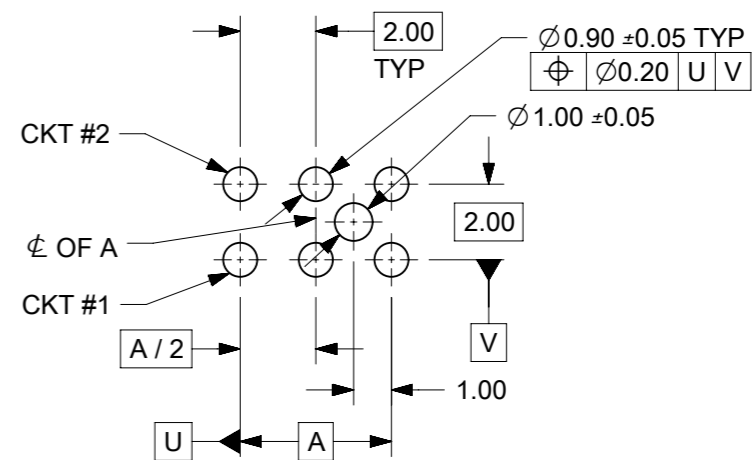
DETAIL 4



VIEW FOR HEADER WITH CAP



VIEW FOR HEADER WITH ONLY DUAL SLOTS



RECOMMENDED PCB LAYOUT

**NOTES:**

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)

SYMBOLS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
$\nabla$ = 0	mm	SCALE NTS		CURRENT REV DESC: ADDED BTB DIST.	
$\nabla$ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)				
$\nabla$ = 0		MM	INCH		
$\nabla$ = 0	4 PLACES	±	±	EC NO: 619055	
$\nabla$ = 0	3 PLACES	±	±	DRWN: NMANE02 2019/03/25	
$\nabla$ = 0	2 PLACES	±	0.2	CHK'D: NMANE02 2019/07/09	
$\nabla$ = 0	1 PLACE	±	±	APPR: MRAMAKRISHNA 2019/07/09	
$\nabla$ = 0	0 PLACES	±	±	INITIAL REVISION:	
$\nabla$ = 0	ANGULAR TOL	±	3.0°	DRWN: GMENARLY 2015/04/15	
$\nabla$ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING	SERIES
$\nabla$ = 0				A3-SIZE	87831
			MATERIAL NUMBER	CUSTOMER	SHEET NUMBER
			SEE TABLE	GENERAL MARKET	4 OF 14
DOCUMENT STATUS		P1	RELEASE DATE	2019/07/09	06:47:12
MOLEX		MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
PRODUCT CUSTOMER DRAWING		DOCUMENT NUMBER: SD-87831-0001			
DOC TYPE: PSD		DOC PART: 001		REVISION: A16	

6 CIRCUITS

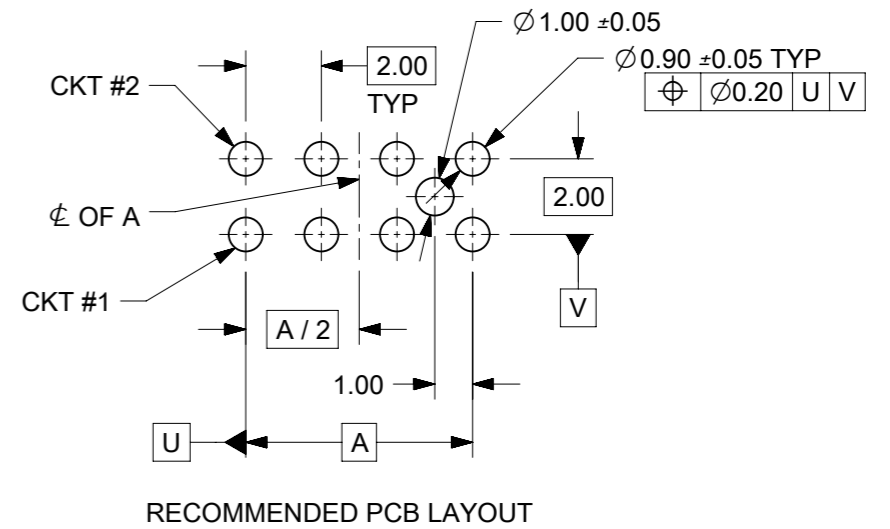
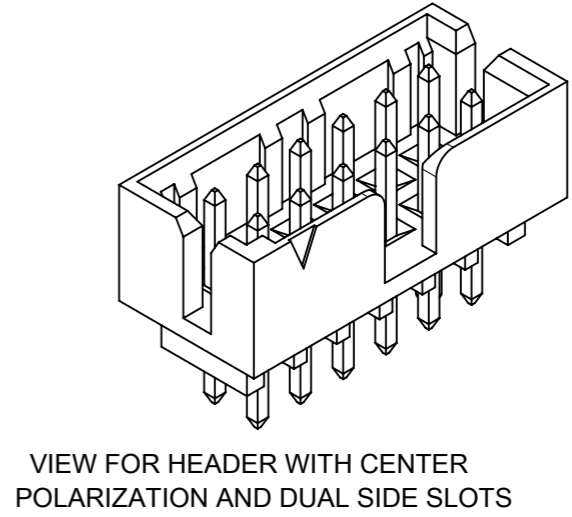
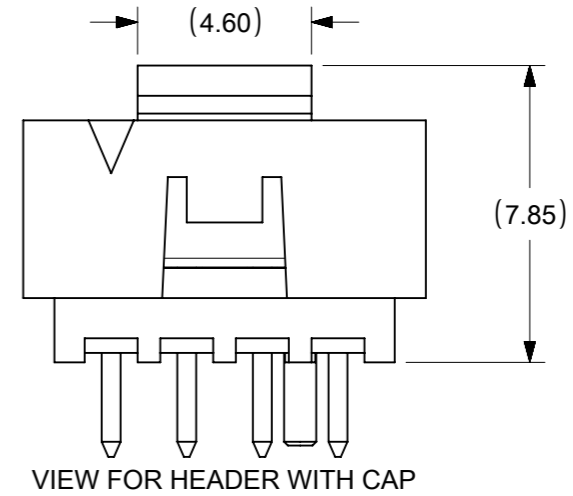
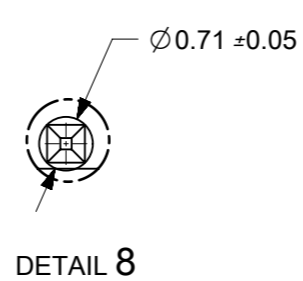
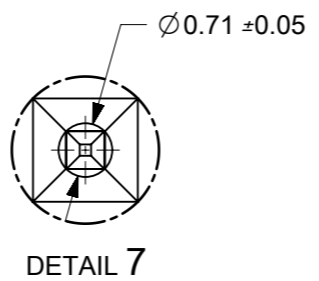
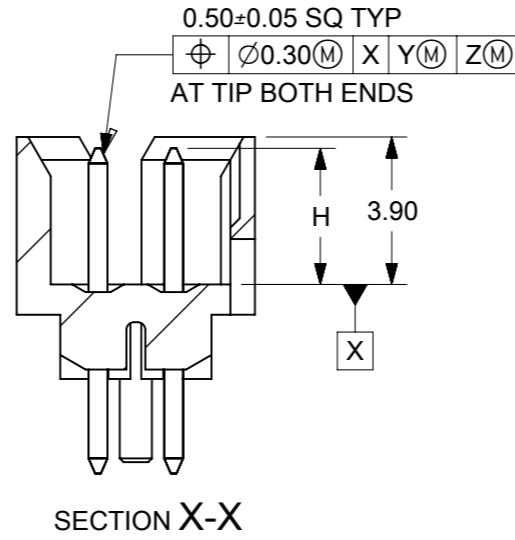
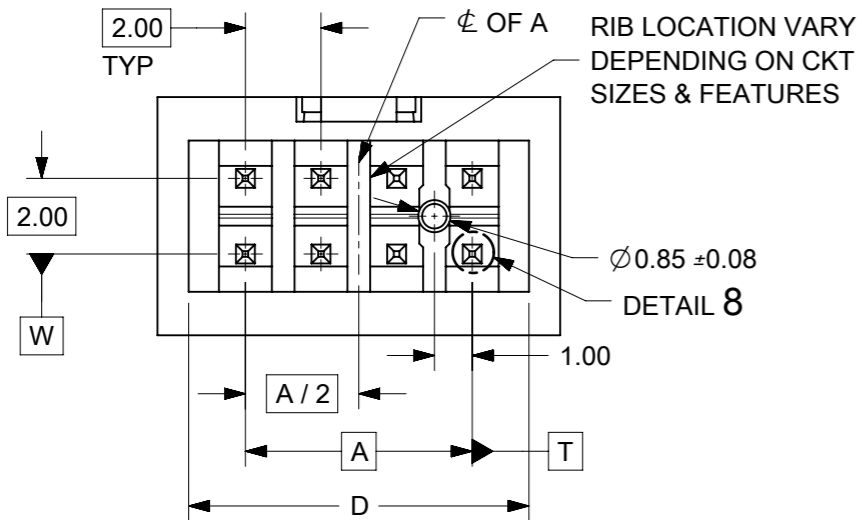
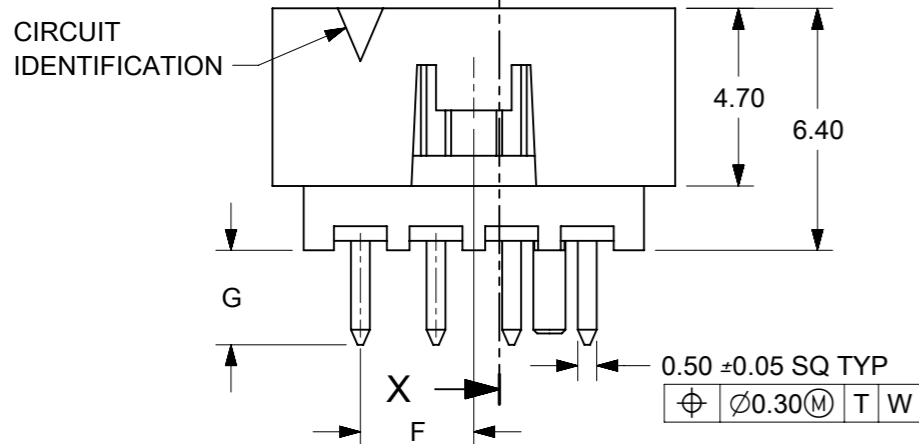
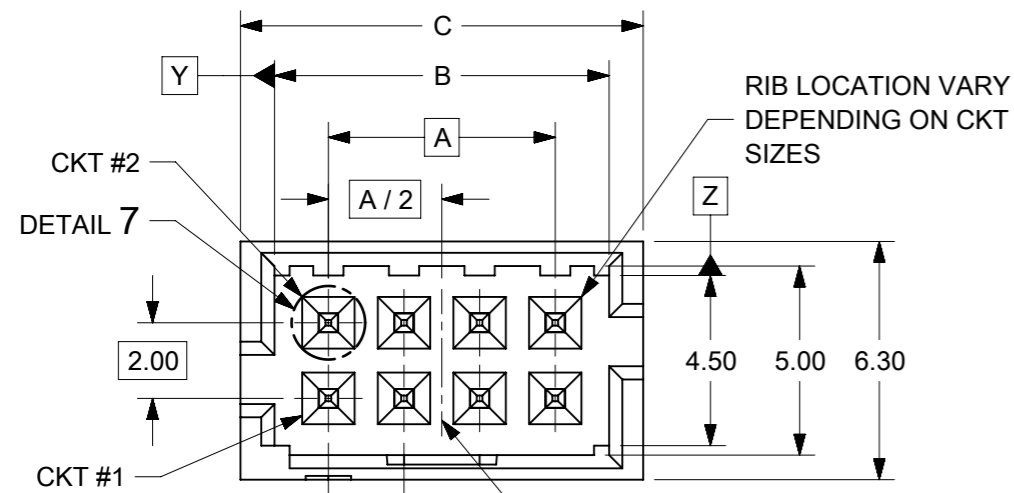
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION													
					DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H						
6	87831-0619	N.A	N.A	1	N.A	N.A	YES	N.A	N.A	N.A	4.00	6.85	8.65	7.00	N.A	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	2.50	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.		<b>molex</b>	
	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 ±	±	THIRD ANGLE PROJECTION		SEE TABLE GENERAL MARKET	
▽ = 0	ANGULAR TOL ± 3.0°		DRAWING		SHEET NUMBER	
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		A3-SIZE 87831		5 OF 14	

# 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			2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)				PRODUCT CUSTOMER DRAWING
▽ = 0		MM	INCH		DOCUMENT NUMBER
▽ = 0	4 PLACES ±				SD-87831-0001
▽ = 0	3 PLACES ±				DOC TYPE
▽ = 0	2 PLACES ±	0.2			PSD
▽ = 0	1 PLACE ±				DOC PART
▽ = 0	0 PLACES ±				001
▽ = 0	ANGULAR TOL ±	3.0°			REVISION
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING	A3-SIZE
▽ = 0			SERIES	87831	MATERIAL NUMBER
			CUSTOMER	GENERAL MARKET	SEE TABLE
			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	DRAWING
CURRENT REV DESC: ADDED BTB DIST.		SERIES
EC NO: 619055		MATERIAL NUMBER
DRWN: NMANE02 2019/03/25		CUSTOMER
CHK'D: NMANE02 2019/07/09		GENERAL MARKET
APPR: MRAMAKRISHNA 2019/07/09		SHEET NUMBER
INITIAL REVISION:		7 OF 14
DRWN: GMENARLY 2015/04/15		
APPR: KHLIM 2015/06/29		
DOCUMENT NUMBER		
SD-87831-0001		
DOC TYPE		
PSD		
DOC PART		
001		
REVISION		
A16		

# 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	2.50	
	87831-1042	N.A	87831-5553	3																				
	87831-1032	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
	87831-1043	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	N.A						N.A	N.A		N.A	N.A	N.A	N.A	N.A	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																				
	87831-1229	N.A	87831-5558	3	N.A	N.A	YES	N.A	YES	YES									N.A	N.A	N.A	N.A	N.A	5.00
	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	2.50	
	87831-1255	87831-1256	N.A	2																				
	87831-1232	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
	87831-1243	N.A	N.A	2																				
	87831-1244	N.A	N.A	3																				
	87831-1245	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
	87831-1246	N.A	N.A	3																				

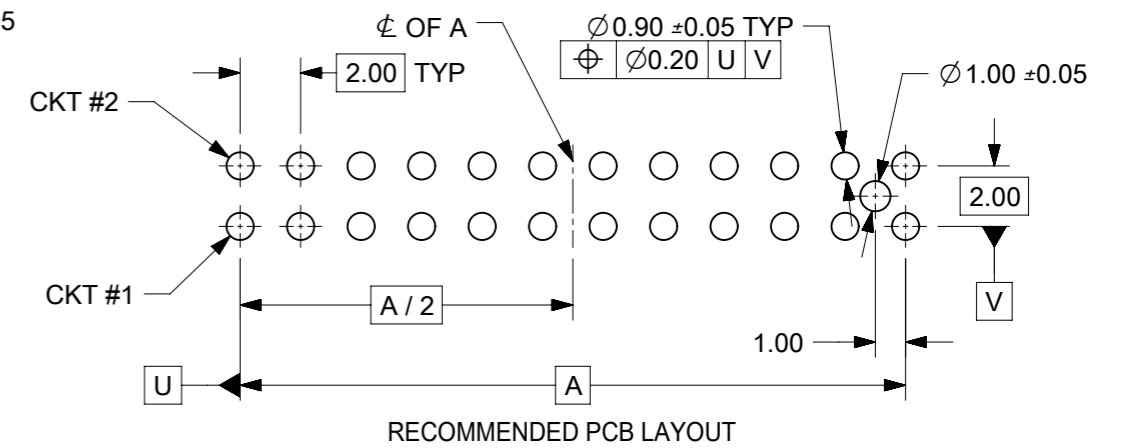
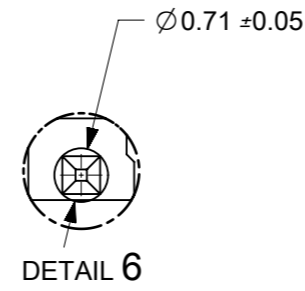
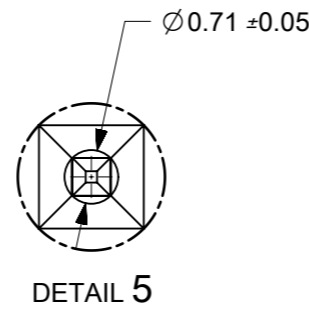
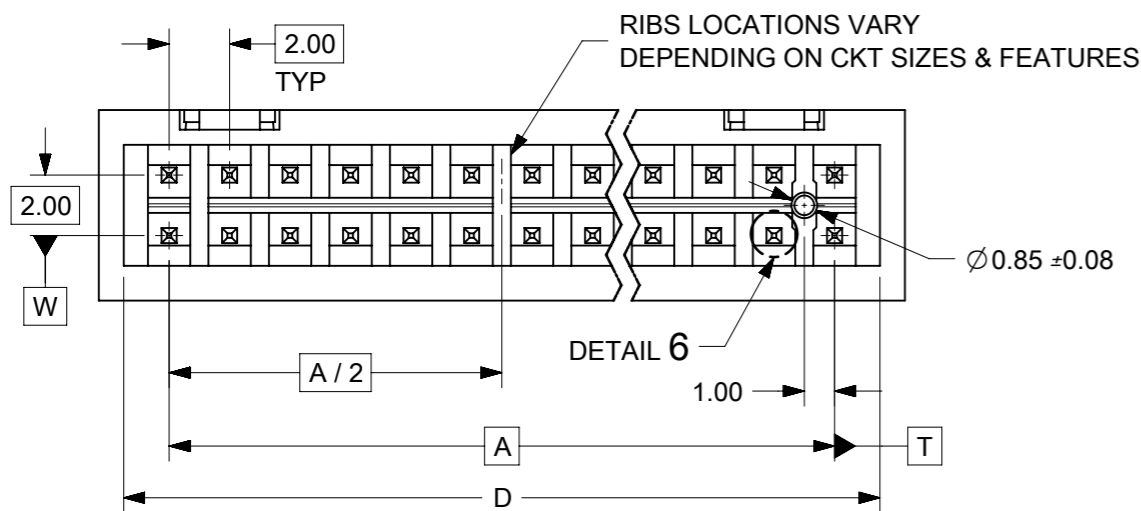
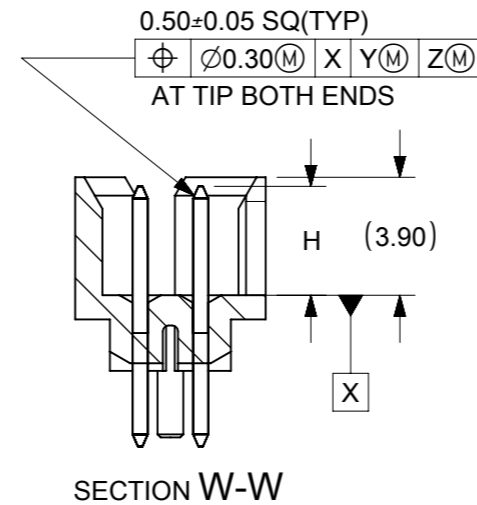
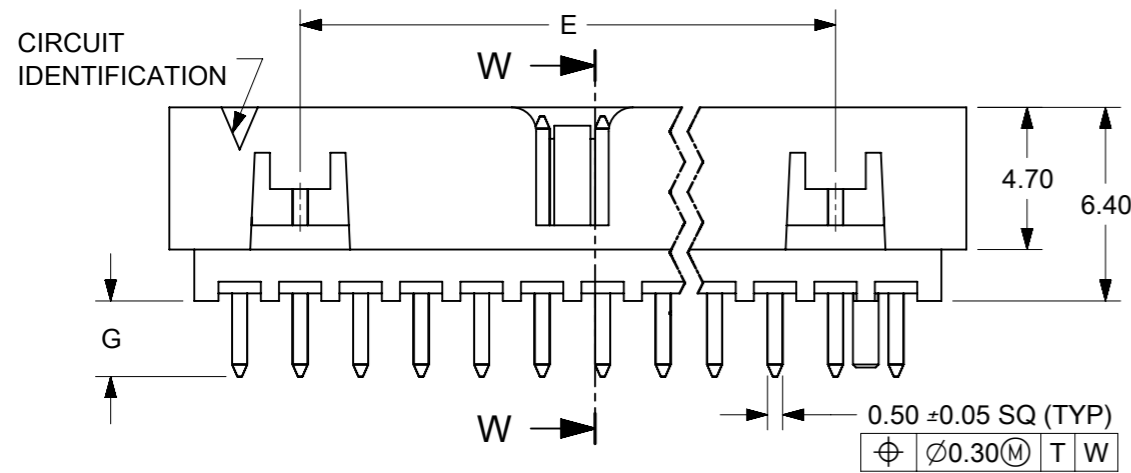
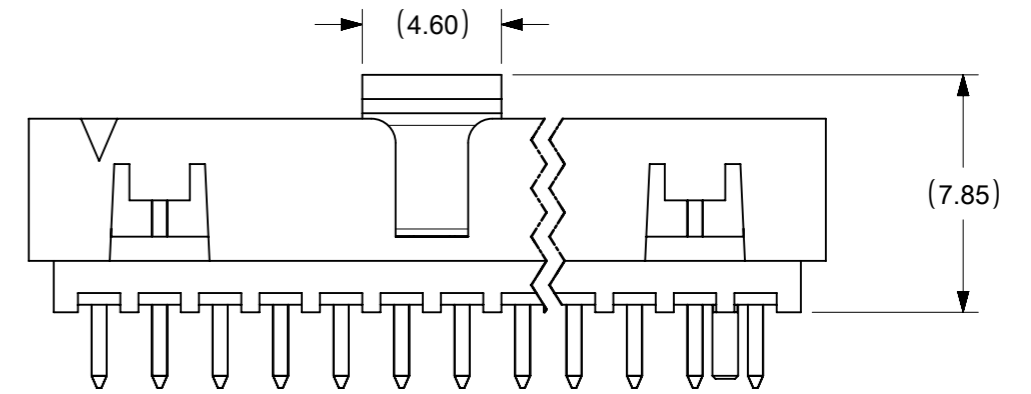
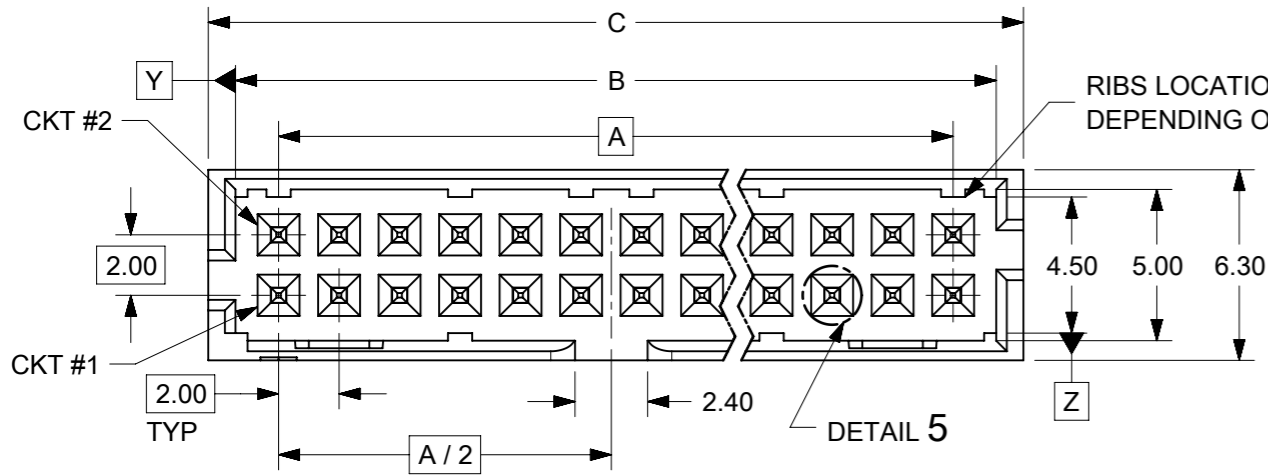
**PLATING OPTIONS:**

- 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.

SYMBOLS ▽ = 0 ▽ = 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 DIMENSION UNITS: <b>mm</b> SCALE: <b>NTS</b> GENERAL TOLERANCES (UNLESS SPECIFIED) 4 PLACES ±    ± 3 PLACES ±    ± 2 PLACES ± 0.2 ± 1 PLACE ±    ± 0 PLACES ±    ± ANGULAR TOL ± 3.0° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	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	molex	
	MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			PRODUCT CUSTOMER DRAWING
	DOCUMENT NUMBER: <b>SD-87831-0001</b> DOC TYPE: PSD    DOC PART: 001    REVISION: A16			SHEET NUMBER: 8 OF 14
	THIRD ANGLE PROJECTION:     DRAWING: <b>A3-SIZE</b> SERIES: <b>87831</b> MATERIAL NUMBER: SEE TABLE    CUSTOMER: GENERAL MARKET			



# 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:	
▽ = 0	0 PLACES ±	±		DRWN: GMENARLY 2015/04/15	SD-87831-0001
▽ = 0	ANGULAR TOL ±	3.0°		APPR: KHLIM 2015/06/29	PSD 001 A16
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	THIRD ANGLE PROJECTION	DRAWING	SERIES	MATERIAL NUMBER
▽ = 0			A3-SIZE	87831	CUSTOMER
					GENERAL MARKET
					SHEET NUMBER
					9 OF 14

# 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														
18	87831-1819	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	16.00	18.85	20.65	19.00	12.00	N.A	2.50	3.60±0.20
	87831-1820	N.A	87831-5566	2														
	87831-1821	N.A	N.A	3														
	87831-1836	N.A	N.A	4	YES	N.A	YES	N.A	YES	YES								
	87831-1828	N.A	N.A	2														
	87831-1829	N.A	N.A	3														
20	87831-2019	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	18.00	20.85	22.65	21.00	14.00	N.A	2.50	3.60±0.20
	87831-2020	N.A	N.A	2														
	87831-2021	N.A	N.A	3														
	87831-2036	N.A	N.A	4	YES	N.A	YES	N.A	YES	YES								
	87831-2028	N.A	N.A	2														
	87831-2029	N.A	N.A	3														
	87831-2035	N.A	N.A	3														
	87831-2010	N.A	N.A	2	YES	N.A	YES	N.A	YES	N.A								
87831-2011	N.A	(A13) 87831-2041	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.


<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	SCALE <b>mm NTS</b>	CURRENT REV DESC: ADDED BTB DIST.																					
	GENERAL TOLERANCES (UNLESS SPECIFIED)			MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER																				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>MM</th> <th>INCH</th> </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 colspan="2">3.0°</td> </tr> </table>					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°																							
EC NO: 619055 DRWN: NMANE02 2019/03/25 CHK'D: NMANE02 2019/07/09 APPR: MRAMAKRISHNA 2019/07/09			PRODUCT CUSTOMER DRAWING																					
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			INITIAL REVISION: DRWN: GMENARLY 2015/04/15 APPR: KHLIM 2015/06/29																					
DIMENSION UNITS		THIRD ANGLE PROJECTION		DRAWING SERIES MATERIAL NUMBER CUSTOMER SHEET NUMBER																				
A3-SIZE 87831		SEE TABLE GENERAL MARKET		SD-87831-0001 PSD 001 A16 10 OF 14																				

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.


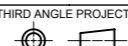
SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									
	DIMENSION UNITS		SCALE		CURRENT REV DESC: ADDED BTB DIST.					
	mm		NTS		 MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER PRODUCT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

DOCUMENT STATUS	P1	RELEASE DATE	2019/07/09	06:47:12
-----------------	----	--------------	------------	----------

# 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	YES	N.A	YES	N.A	YES	YES								
	87831-4228	N.A	N.A	2														
	87831-4229	N.A	N.A	3														
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	YES	N.A	YES	N.A	YES	YES								
	87831-4429	N.A	N.A	3														
	87831-4435	N.A	N.A	3														
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	YES	N.A	YES	N.A	YES	YES								
	87831-4628	N.A	N.A	2														
	87831-4629	N.A	N.A	3														
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	YES	N.A	YES	N.A	YES	YES								
	87831-4828	N.A	N.A	2														
	87831-4829	N.A	N.A	3														
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	YES	N.A	YES	N.A	YES	YES								
	87831-5028	N.A	N.A	2														
	87831-5029	N.A	N.A	3														
	87831-5035	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.

<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.		
	DIMENSION UNITS	SCALE	GENERAL TOLERANCES (UNLESS SPECIFIED)		
	mm	NTS			
	EC NO: 619055		DRWN: NMANE02 2019/03/25		
DRWN: NMANE02 2019/07/09		CHK'D: NMANE02 2019/07/09			
APPR: MRAMAKRISHNA 2019/07/09		INITIAL REVISION:			
DRWN: GMENARLY 2015/04/15		DRWN: GMENARLY 2015/04/15			
APPR: KHLIM 2015/06/29		APPR: KHLIM 2015/06/29			
ANGULAR TOL ± 3.0°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING
A3-SIZE		SERIES	MATERIAL NUMBER	CUSTOMER	SHEET NUMBER
87831		87831	SEE TABLE	GENERAL MARKET	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 ▽ = 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.																		
	DIMENSION UNITS: <b>mm</b> SCALE: <b>NTS</b>		<b>molex</b> MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER																		
	GENERAL TOLERANCES (UNLESS SPECIFIED)																				
	<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 ±	±	±	EC NO: 619055 DRWN: NMANE02    2019/03/25 CHK'D: NMANE02    2019/07/09 APPR: MRAMAKRISHNA    2019/07/09
	MM	INCH																			
4 PLACES ±	±	±																			
3 PLACES ±	±	±																			
2 PLACES ±	0.2	±																			
1 PLACE ±	±	±																			
0 PLACES ±	±	±																			
ANGULAR TOL ± 3.0°		INITIAL REVISION: DRWN: DRWN BY    XXXX/XX/XX APPR: APPR BY    XXXX/XX/XX																			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING: <b>A3-SIZE</b>	SERIES: <b>87831</b>																	
DOCUMENT STATUS: P1    RELEASE DATE: 2019/07/09    06:47:12		MATERIAL NUMBER:	CUSTOMER: <b>GENERAL MARKET</b>	SHEET NUMBER: <b>14 OF 14</b>																	

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Headers & Wire Housings](#) category:*

*Click to view products by [Molex](#) manufacturer:*

Other Similar products are found below :

[892-18-020-10-001101](#) [58102-G61-06LF](#) [582553-1](#) [0009485154](#) [009176003701906](#) [0050291907](#) [LY20-4P-DT1-P1E-BR](#) [02.125.8002.8](#)  
[609-3404](#) [61062-3](#) [622-0430](#) [622-3653LF](#) [63453-116](#) [636-1030](#) [636-1427](#) [636-3427](#) [636-4007](#) [641938-9](#) [641991-4](#) [644827-2](#) [65817-010LF](#)  
[65817-015LF](#) [65863-015LF](#) [66207-023LF](#) [67095-007LF](#) [67601157](#) [68648-049](#) [70.362.1628.0](#) [70-4210](#) [70-4226B](#) [70-4853B](#) [707-5020](#) [707-5028](#) [71.350.2428.0](#) [71918-208LF](#) [71961-016LF](#) [733-134](#) [733-162](#) [754199-000](#) [760-3052](#) [787-8014-00](#) [79531-3000](#) [FCN-360C032-B](#) [FCN-367T-T012/H](#) [FCN-723D010/2](#) [80.063.4001.1](#) [800-90-001-10-001000](#) [800-90-010-10-002000](#) [801-43-002-10-013000](#) [801-43-006-10-002000](#)