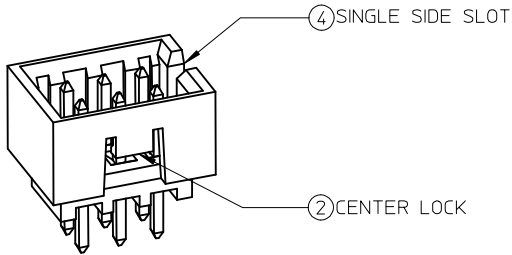


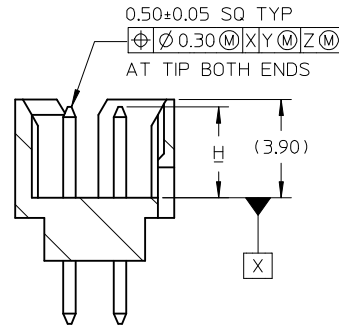
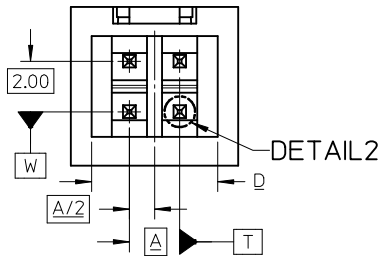
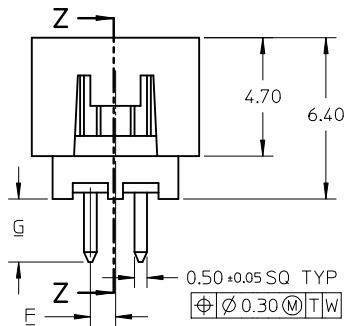
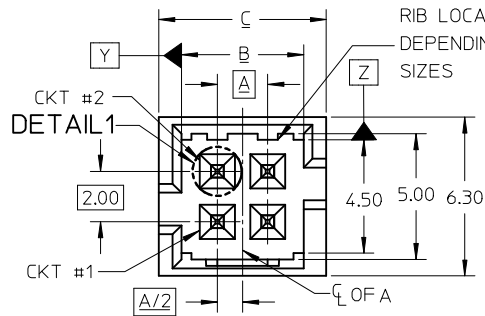
FEATURES SELECTION GUIDE



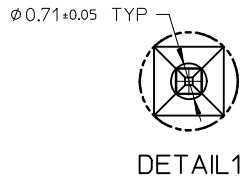
CIRCUIT SIZE	FEATURES						SHEET NO
	FRICTION LOCKS		SIDE SLOTS		5 CENTER POLARIZATION	6 PEG	
	1 DUAL	2 CENTER	3 DUAL	4 SINGLE			
4	N.A	N.A	YES	N.A	N.A	N.A	2 - 3
	N.A	YES	YES	N.A	N.A	N.A	
	N.A	YES	N.A	YES	N.A	N.A	
6	N.A	N.A	YES	N.A	N.A	N.A	4 - 5
	N.A	N.A	YES	N.A	N.A	YES	
	N.A	YES	YES	N.A	N.A	N.A	
	N.A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

RELEASED EC NO: S2015-1188 DRWNG: GMENARLY 2015/04/15 CHK'D: CGOH 2015/06/29 APPR: KHL IM 2015/06/29	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	$\nabla_{\sqrt{A}} = 0$ $\nabla_{\sqrt{C}} = 0$ $\nabla_{\sqrt{P}} = 0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- 0 PLACE ± --- ± ---	MM ONLY	NTS	METRIC	
	ANGULAR ± 3 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY: GMENARLY DATE: 2015/04/15 CHECKED BY: DATE: APPROVED BY: KHL IM DATE: 2015/06/29	TITLE: MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER molex			
	MATERIAL NO. DOCUMENT NO. SHEET NO. SEE TABLE SD-87831-0001 1 OF 13	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

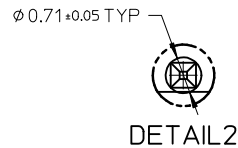
4 CIRCUITS



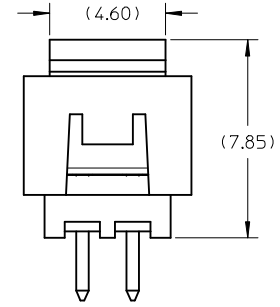
SECTION Z-Z



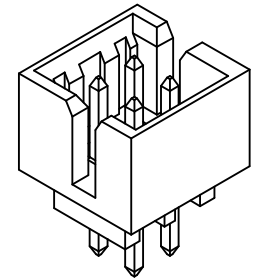
DETAIL 1



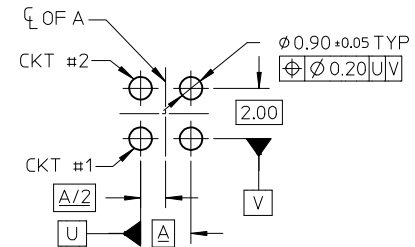
DETAIL 2



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:
TUBE: PK-87831-001, TAPE AND REEL: PK-87831-300
- 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)

RELEASED EC NO: S2015-1188 DRWING: GMENARLY CHK'D: CGOH APPR: KHL IM	2015/04/15 2015/06/29 2015/06/29	QUALITY SYMBOLS $F_A=0$ $F_G=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION			
					MM ONLY	NTS	METRIC				
			mm	INCH	DRAWN BY	DATE	TITLE				
			4 PLACES	± ---	± ---	GMENARLY	2015/04/15	MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
3 PLACES	± ---	± ---	CHECKED BY	DATE							
2 PLACES	± 0.20	± ---	APPROVED BY	DATE							
1 PLACE	± ---	± ---	KHL IM	2015/06/29	DOCUMENT NO. SD-87831-0001						
0 PLACE	± ---	± ---	MATERIAL NO.		SHEET NO. 2 OF 13						
ANGULAR ± 3°			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
A			A3								

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	N.A	3														
	87831-5141	N.A	N.A	2	N.A	YES	YES	N.A	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	N.A						2.80		
	87831-6142	N.A	N.A	3														
87831-0443	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A	2.50								
87831-0444	N.A	N.A	3															

PLATING OPTIONS:

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

RELEASED EC NO: S2015-1188 DRW:GMENARLY 2015/04/15 CHKD:CGOH 2015/06/29 APPR:KHLIM 2015/06/29	DESCRIPTION QUALITY SYMBOLS $F_A=0$ $F_G=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
				MM ONLY	NTS	METRIC		
		4 PLACES	± --- ± ---	DRAWN BY	DATE	TITLE		
		3 PLACES	± --- ± ---	GMENARLY	2015/04/15	MILLIGRID		
2 PLACES	± 0.20 ± ---	CHECKED BY	DATE	2MM PITCH, THROUGH HOLE				
1 PLACE	± --- ± ---	APPROVED BY	DATE	VERTICAL SHROUDED HEADER				
0 PLACE	± --- ± ---	KHLIM	2015/06/29	molex				
ANGULAR ± 3 °		MATERIAL NO.	SEE TABLE	DOCUMENT NO.	SD-87831-0001		SHEET NO.	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE	A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			3 OF 13	

6 CIRCUITS

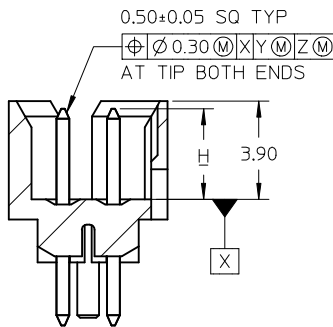
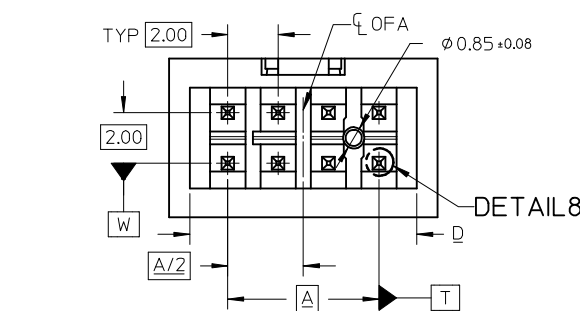
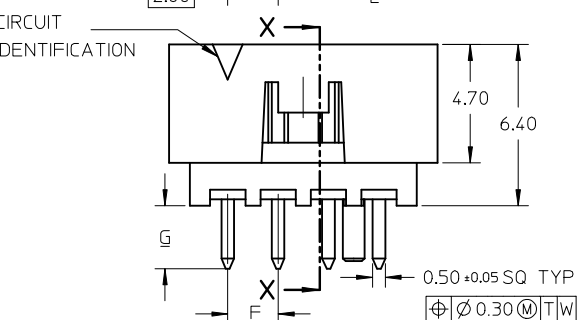
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION							
					DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H
6	87831-0619	N.A	N.A	1	N.A	N.A	YES	N.A	N.A	N.A	4.00	6.85	8.65	7.00	N.A	N.A	2.50	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	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						2.50		
	87831-0642	N.A	87831-5552	3														
	87831-5241	N.A	N.A	2														
	87831-5242	N.A	N.A	3	N.A	YES	YES	N.A	N.A	N.A						3.50		
	87831-6241	N.A	N.A	2														
	87831-6242	N.A	N.A	3														
	87831-0643	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A						2.80		
	87831-0644	N.A	N.A	3														
	87831-0645	N.A	N.A	2														
	87831-0646	N.A	N.A	3														
87831-0632	N.A	N.A	2	N.A	YES	YES	N.A	N.A	YES	2.50								
87831-5119	N.A	N.A	1															

PLATING OPTIONS:

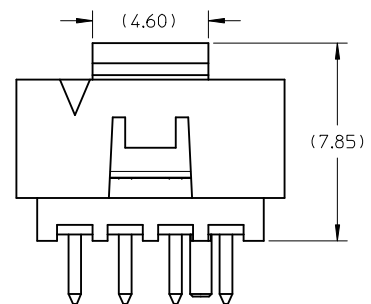
- 1 - 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 2 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 3 - 0.76um/30uin GOLD IN CONTACT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

RELEASED EC NO: S2015-1188 DRW:GMENARLY 2015/04/15 CHKD:CGOH 2015/06/29 APPR:KHL IM 2015/06/29	DESCRIPTION QUALITY SYMBOLS $F_A=0$ $F_G=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION				
				mm	INCH	DRAWN BY GMENARLY	DATE 2015/04/15	TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER				
				4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	CHECKED BY		DATE				
				2 PLACES ± 0.20 ± ---	1 PLACE ± --- ± ---	APPROVED BY KHL IM		DATE 2015/06/29				
		0 PLACE ± --- ± ---	ANGULAR ± 3 °		MATERIAL NO.		DOCUMENT NO.		SHEET NO.			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		SD-87831-0001		5 OF 13				
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION										

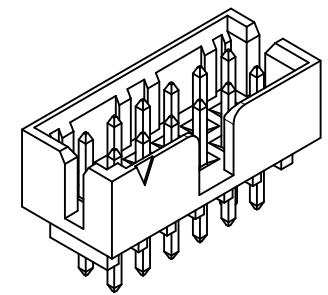
8 TO 12 CIRCUITS



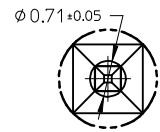
SECTION X-X



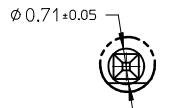
VIEW FOR HEADER WITH CAP



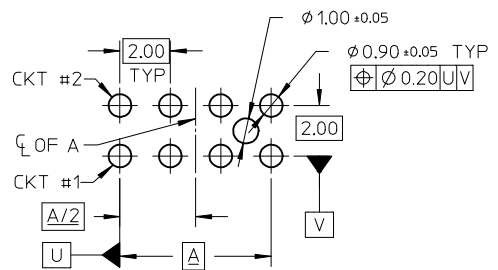
VIEW FOR HEADER WITH CENTER POLARIZATION AND DUAL SIDE SLOTS



DETAIL 7



DETAIL 8



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:
TUBE: PK-87831-001, TAPE AND REEL: PK-87831-300
 - 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)

RELEASED EC NO: S2015-1188 DRWN:GMENARLY 2015/04/15 CHKD:CGOH 2015/06/29 APPR:KHLIM 2015/06/29	DESCRIPTION QUALITY SYMBOLS $\nabla_A=0$ $\nabla_B=0$ $\nabla_C=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY GMENARLY	DATE 2015/04/15	TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
			4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	CHECKED BY	DATE				
			2 PLACES ± 0.20 ± ---	1 PLACE ± --- ± ---	APPROVED BY KHLIM	DATE 2015/06/29				
	0 PLACE ± --- ± ---	ANGULAR ± 3 °		MATERIAL NO.	DOCUMENT NO.	SHEET NO.				
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		SD-87831-0001				6 OF 13	
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								

8 CIRCUITS

F	CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION														
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H							
E	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	N.A	N.A	YES	N.A	YES	YES	YES						N.A	2.50								
	87831-0828	N.A	N.A	2																						
	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						3.00	2.50								
	87831-0842	N.A	N.A	3																						
	87831-5441	N.A	N.A	2																						
	87831-5442	N.A	N.A	3	N.A	YES	YES	N.A	N.A	N.A	N.A						3.00	3.50								
	N.A	87831-5541	N.A	2																						
	N.A	87831-5542	N.A	3																						
	D	8	87831-5741	N.A	N.A	2	N.A	YES	YES	N.A	N.A						N.A	6.00		8.85	10.65	9.00	N.A	3.00	4.70	3.60 ^{+0.15} _{-0.10}
		87831-5742	N.A	N.A	3																					
		87831-0832	N.A	N.A	2																					
87831-0843		N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A	YES	3.00	2.50													
87831-0844		N.A	N.A	3																						
87831-0845		N.A	N.A	2																						
87831-0846		N.A	N.A	3	N.A	YES	N.A	YES	N.A	YES	YES	3.00	2.50													

PLATING OPTIONS:

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

RELEASED EC NO: S2015-1188 DRWNG: GEMEARLY 2015/04/15 CHK'D: CGOH 2015/06/29 APPR: KHL IM 2015/06/29	REV DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
		$\nabla_A = 0$ $\nabla_C = 0$ $\nabla_P = 0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- 0 PLACE ± --- ± ---	MM ONLY	NTS	METRIC	DRAWN BY: GMENARLY DATE: 2015/04/15 CHECKED BY: _____ DATE: _____	TITLE: MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER molex
		ANGULAR ± 3 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	APPROVED BY: KHL IM DATE: 2015/06/29 MATERIAL NO. _____ DOCUMENT NO. SD-87831-0001	SHEET NO. 7 OF 13			
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

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	N.A	3														
	87831-1036	N.A	N.A	4														
	87831-1010	N.A	N.A	2														
	87831-1011	N.A	N.A	3														
	87831-1028	N.A	N.A	2	N.A	N.A	YES	N.A	YES	YES						2.50		
	87831-1029	N.A	N.A	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						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	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	2.50								
87831-1219	N.A	N.A	1															
87831-1220	N.A	N.A	2															
12	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	N.A	3														
	87831-1241	N.A	N.A	2														
	87831-1242	N.A	N.A	3														
	87831-1255	87831-1256	N.A	2	N.A	YES	YES	N.A	N.A	N.A						3.50		
	87831-1232	N.A	N.A	2														
	87831-1243	N.A	N.A	2														
	87831-1244	N.A	N.A	3	N.A	YES	N.A	YES	N.A	N.A						2.50		
	87831-1245	N.A	N.A	2														
	87831-1246	N.A	N.A	3														

PLATING OPTIONS:

1 - 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.

2 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.

3 - 0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.

4 - 2.50um/100uin MIN. MATTE TIN OVER 1.25um/50uin MIN. NICKEL OVERALL.

RELEASED EC NO: S2015-1188 DRWG:GMENARLY CHKD:CGOH APPR:KHL IM	2015/04/15 2015/06/29 2015/06/29	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION			
			$F_A=0$ $F_G=0$ $F_P=0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- 0 PLACE ± --- ± ---	MM ONLY	NTS	METRIC	DRAWN BY: GMENARLY DATE: 2015/04/15 CHECKED BY: _____ DATE: _____	TITLE: MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER		
				ANGULAR ± 3 °	SEE TABLE			APPROVED BY: KHL IM DATE: 2015/06/29	molex DOCUMENT NO. SD-87831-0001 SHEET NO. 8 OF 13		
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

14 TO 50 CIRCUITS



SECTION W-W



DETAIL5



DETAIL6



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:
TUBE: PK-87831-001, TAPE AND REEL: PK-87831-300
- 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)

RELEASED EC NO: S2015-1188 DRWN:GMENARLY 2015/04/15 CHKD:CGOH 2015/06/29 APPR:KHL IM 2015/06/29	DESCRIPTION QUALITY SYMBOLS $F_a=0$ $F_b=0$ $F_c=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- 0 PLACE ± --- ± ---	mm INCH DRAWN BY GMENARLY DATE 2015/04/15 CHECKED BY DATE	TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER		MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-87831-0001		SHEET NO. 9 OF 13	
		ANGULAR ± 3 °		APPROVED BY KHL IM DATE 2015/06/29		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		molex			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A3							

14 TO 20 CIRCUITS

F	CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION							
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H
E	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	N.A	87831-5554	2														
		87831-1421	N.A	N.A	3														
		87831-1436	N.A	N.A	4														
		87831-1428	N.A	N.A	2														
		87831-1429	N.A	N.A	3														
		87831-1435	N.A	N.A	3														
D	16	87831-1410	N.A	N.A	2	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
		87831-1411	N.A	N.A	3														
		87831-1619	N.A	N.A	1														
		87831-1620	N.A	N.A	2														
		87831-1621	N.A	N.A	3														
		87831-1636	N.A	N.A	4														
		87831-1628	N.A	N.A	2														
C	18	87831-1629	N.A	N.A	3	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
		87831-1819	N.A	N.A	1														
		87831-1820	N.A	N.A	2														
		87831-1821	N.A	N.A	3														
		87831-1836	N.A	N.A	4														
		87831-1828	N.A	N.A	2														
A	20	87831-1829	N.A	N.A	3	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
		87831-2019	N.A	N.A	1														
		87831-2020	N.A	N.A	2														
		87831-2021	N.A	N.A	3														
		87831-2036	N.A	N.A	4														
		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																
87831-2011	N.A	N.A	3																

PLATING OPTIONS:

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

RELEASED EC NO: S2015-1188 DRW:GMENARLY 2015/04/15 CHKD:CGOH 2015/06/29 APPR:KHLIM 2015/06/29	DESCRIPTION REV A	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
		$F_A=0$ $F_G=0$ $F_P=0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- 0 PLACE ± --- ± ---	MM ONLY	NTS	METRIC	DRAWN BY: GMENARLY DATE: 2015/04/15 CHECKED BY: DATE: APPROVED BY: KHLIM DATE: 2015/06/29	
		ANGULAR ± 3 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	MATERIAL NO. DOCUMENT NO.	TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER molex	SHEET NO. 10 OF 13		
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

22 TO 30 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						
22	87831-2219	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	2																					
	87831-2221	N.A	N.A	3																					
	87831-2236	N.A	N.A	4																					
	87831-2228	N.A	N.A	2																					
87831-2229	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES	2.50															
24	87831-2419	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	2																					
	87831-2421	N.A	N.A	3																					
	87831-2436	N.A	N.A	4																					
	87831-2428	N.A	N.A	2																					
	87831-2429	N.A	N.A	3																					
	87831-2435	N.A	N.A	3															YES	N.A	YES	N.A	YES	YES	3.50
87831-2410	N.A	N.A	2	YES	N.A	YES	N.A	YES	N.A	3.50															
26	87831-2619	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	N.A	N.A	2																					
	87831-2621	N.A	N.A	3																					
	87831-2636	N.A	N.A	4																					
	87831-2628	N.A	N.A	2																					
	87831-2629	N.A	N.A	3																					
	87831-2610	N.A	N.A	2															YES	N.A	YES	N.A	YES	N.A	3.50
28	87831-2819	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	2																					
	87831-2821	N.A	N.A	3																					
	87831-2836	N.A	N.A	4																					
	87831-2828	N.A	N.A	2																					
	87831-2829	N.A	N.A	3															YES	N.A	YES	N.A	YES	YES	2.50
30	87831-3019	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	2																					
	87831-3021	N.A	N.A	3																					
	87831-3036	N.A	N.A	4																					
	87831-3028	N.A	N.A	2																					
	87831-3029	N.A	N.A	3															YES	N.A	YES	N.A	YES	YES	2.50
	87831-3035	N.A	N.A	3															YES	N.A	YES	N.A	YES	YES	3.50
87831-3010	87831-3030	87831-3050	2	YES	N.A	YES	N.A	YES	N.A	3.50															

PLATING OPTIONS:

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

RELEASED
 IEC NO: S2015-1188
 DRW:GMENARLY 2015/04/15
 CH:KD:G0H 2015/06/29
 APPR:KHL IM 2015/06/29

QUALITY SYMBOLS
 F_A=0
 F_C=0
 F_B=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.20	± ---
1 PLACE	± ---	± ---
0 PLACE	± ---	± ---

ANGULAR ± 3 °
 DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE
MM ONLY

SCALE
NTS

DESIGN UNITS
METRIC

THIRD ANGLE PROJECTION

DRAWN BY
 GMENARLY

DATE
 2015/04/15

CHECKED BY

DATE

APPROVED BY
 KHL IM

DATE
 2015/06/29

MATERIAL NO.

DOCUMENT NO.
SD-87831-0001

SHEET NO.
 11 OF 13

MILLIGRID
 2MM PITCH, THROUGH HOLE
 VERTICAL SHROUDED HEADER

molex

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

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															YES	N.A	YES	N.A	YES	YES	2.50
	87831-3429	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	N.A	2																					
	87831-3621	N.A	N.A	3																					
	87831-3636	N.A	N.A	4																					
	87831-3628	N.A	N.A	2															YES	N.A	YES	N.A	YES	YES	2.50
	87831-3629	N.A	N.A	3															YES	N.A	YES	N.A	YES	YES	3.50
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															YES	N.A	YES	N.A	YES	YES	2.50
	87831-3829	N.A	N.A	3															YES	N.A	YES	N.A	YES	YES	3.50
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															YES	N.A	YES	N.A	YES	YES	2.50
	87831-4029	N.A	N.A	3															YES	N.A	YES	N.A	YES	YES	3.50
	87831-4010	N.A	N.A	2															YES	N.A	YES	N.A	YES	N.A	3.50

PLATING OPTIONS:

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

RELEASED EC NO: S2015-1188 DRWNG:GMENARLY 2015/04/15 CHKD:CGOH 2015/06/29 APPR:KHLIM 2015/06/29	DESCRIPTION QUALITY SYMBOLS $F_A=0$ $F_G=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION			
				MM ONLY		NTS		METRIC			
				mm	INCH	DRAWN BY	DATE	TITLE			
						GMENARLY	2015/04/15	MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
				CHECKED BY	DATE	APPROVED BY		DATE	DOCUMENT NO.		
						KHLIM		2015/06/29	SD-87831-0001		
				ANGULAR ± 3 °		MATERIAL NO.		SEE TABLE		SHEET NO.	
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		12 OF 13	
						A3					

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	YES	N.A	YES	N.A	YES	YES							2.50	
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							2.50	
	87831-4429	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	YES	N.A	YES	N.A	YES	YES							2.50	
	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														
	87831-4828	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	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														
	87831-5028	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-5029	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							3.50	
	87831-5035	N.A	N.A	3														

PLATING OPTIONS:

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

RELEASED IEC NO: S2015-1188 DRWNG:GMENARLY CHK'D:CGOH APPR:KHLIM	2015/04/15 2015/06/29 2015/06/29	DESCRIPTION QUALITY SYMBOLS $\nabla_F = 0$ $\nabla_F = 0$ $\nabla_F = 0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION			
					MM ONLY		NTS	METRIC				
					mm	INCH	DRAWN BY		DATE		TITLE	
					4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	GMENARLY		2015/04/15		MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER	
		2 PLACES ± 0.20 ± ---	1 PLACE ± --- ± ---	CHECKED BY		DATE		molex				
		0 PLACE ± --- ± ---	0 PLACE ± --- ± ---	APPROVED BY		DATE						
		ANGULAR ± 3 °		KHLIM		2015/06/29		DOCUMENT NO.				
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.		SEE TABLE		SD-87831-0001				
				SIZE		A3		SHEET NO.				
				THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				13 OF 13				

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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