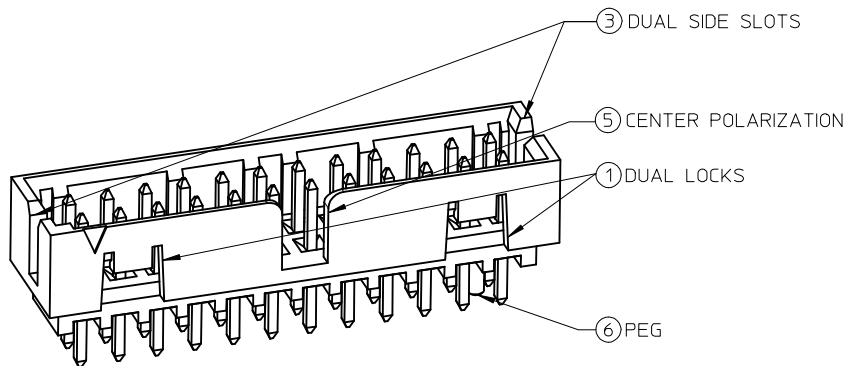
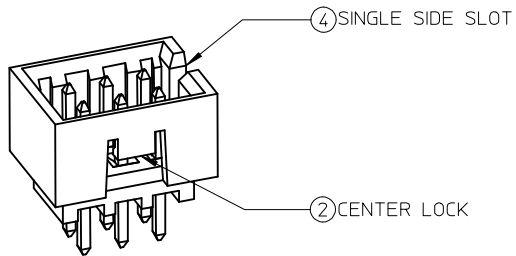


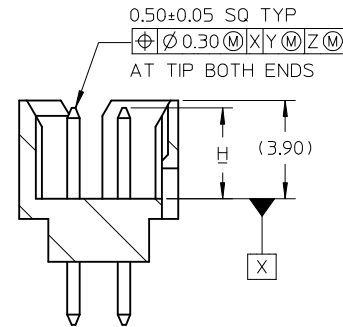
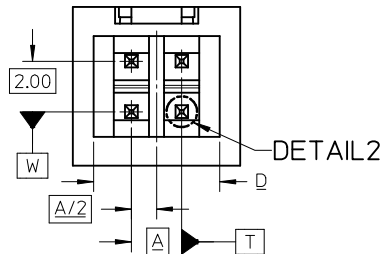
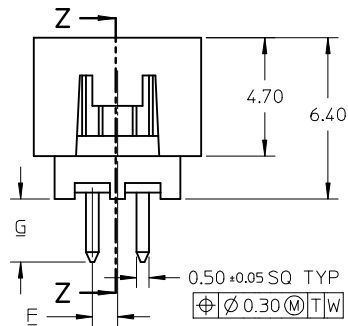
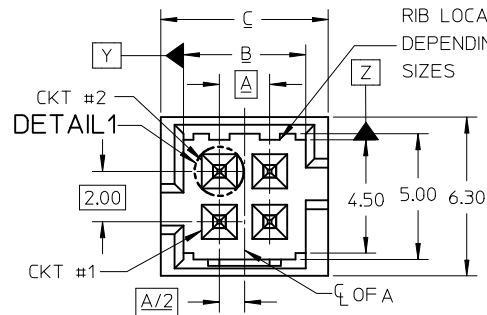
FEATURES SELECTION GUIDE



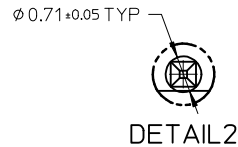
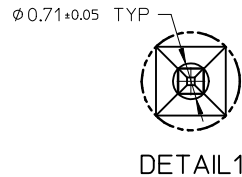
5		4		3		2		1	
CIRCUIT SIZE		FEATURES							
		FRICTION LOCKS		SIDE SLOTS		⑤ CENTER POLARIZATION	⑥ PEG	SHEET NO	
		① DUAL	② CENTER	③ DUAL	④ SINGLE				
4		N.A	N.A	YES	N.A	N.A	N.A	2 - 3	
		N.A	YES	YES	N.A	N.A	N.A		
		N.A	YES	N.A	YES	N.A	N.A		
6		N.A	N.A	YES	N.A	N.A	N.A	4 - 5	
		N.A	N.A	YES	N.A	N.A	YES		
		N.A	YES	YES	N.A	N.A	N.A		
		N.A	YES	YES	N.A	N.A	YES		
		N.A	YES	N.A	YES	N.A	N.A		
		N.A	YES	N.A	YES	N.A	YES		
		N.A	N.A	YES	N.A	YES	N.A		
8 TO 12		N.A	N.A	YES	N.A	YES	N.A	6 - 8	
		N.A	N.A	YES	N.A	YES	YES		
		N.A	YES	YES	N.A	N.A	N.A		
		N.A	YES	YES	N.A	N.A	YES		
		N.A	YES	N.A	YES	N.A	N.A		
		N.A	YES	N.A	YES	N.A	YES		
14 TO 50		YES	N.A	YES	N.A	YES	N.A	9 - 13	
		YES	N.A	YES	N.A	YES	YES		

RELEASED EC NO: S2015-1188 DRAWING:GMENARLY CHKD:CGOH APPR:KHLIM REV A	DESCRIPTION	QUALITY SYMBOLS F_A=0 F_C=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	± ---	± ---	CHECKED BY	DATE					
			3 PLACES	± ---	± ---	APPROVED BY KHL IM		DATE 2015/06/29		DOCUMENT NO. SD-87831-0001		SHEET NO. 1 OF 13
			2 PLACES	± 0.20	± ---							
			1 PLACE	± ---	± ---	MATERIAL NO. SEE TABLE		SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
			0 PLACE	± ---	± ---							
			ANGULAR ± 3 °									
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS									

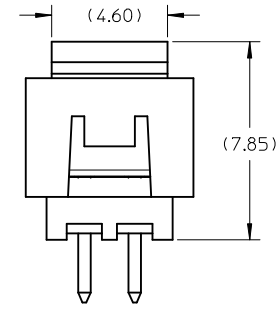
4 CIRCUITS



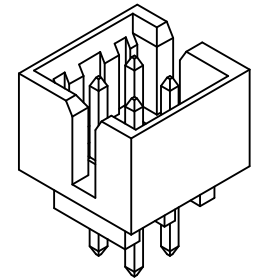
SECTION Z-Z



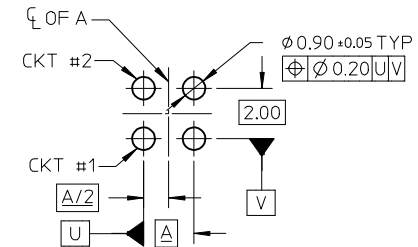
DETAIL2



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:

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

5. MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES

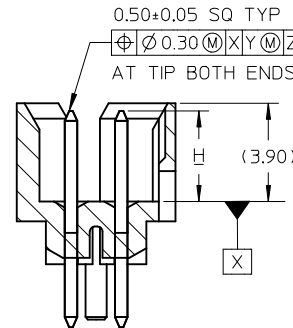
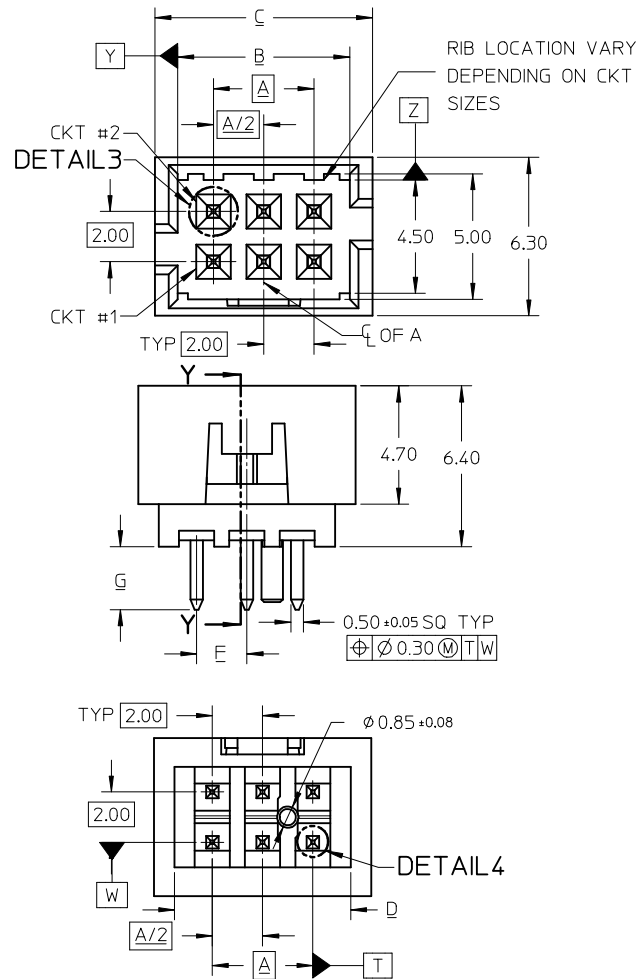
B. MOLEX 2MM MILLIGRID DUAL ROW IDT: 87568 SERIES

C. MOLEX 2MM MILLIGRID DUAL ROW RECEPTACLE:
79107 (GOLD PLATED), 78787 (TIN PLATED)

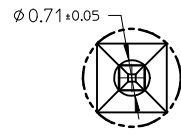
RELEASED EC NO: S2015-1188 DRWNG:GMENARLY CHKD:CGOH APPR:KHLIM 2015/04/15 2015/06/29 2015/06/29	DESCRIPTION	QUALITY SYMBOLS F_A=0 F_G=0 F_P=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
					MM ONLY		NTS	METRIC			
					DRAWN BY DATE		TITLE				
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

	10	9	8	7	6	5	4	3	2	1									
	4 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						F	
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H
E	4	87831-0419	N.A	N.A	1	N.A	N.A	YES	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														
		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																
87831-0444	N.A	N.A	3	N.A	YES						N.A	YES	N.A	N.A	2.50			3.60 ^{+0.15} _{-0.10}	
D											D								
C											C								
B											B								
A	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 DRWN:GMENARLY 2015/04/15 CHKD:GGOH 2015/06/29 APPR:KHL IM 2015/06/29 A	REV DESCRIPTION	QUALITY SYMBOLS ▽=0 ▽=0 ▽=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 DRAWN BY DATE GMENARLY 2015/04/15 CHECKED BY DATE APPROVED BY DATE KHL IM 2015/06/29 MATERIAL NO. SEE TABLE	SCALE NTS TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER molex SD-87831-0001	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	SHEET NO. 3 OF 13					
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																			
tb_frame_A3_P_AM_T Rev. G 2012/01/11	9	8	7	6	5	4	3	2	1										

6 CIRCUITS



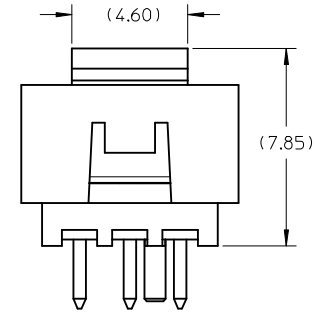
SECTION Y-Y



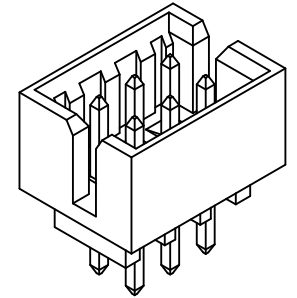
DETAIL3



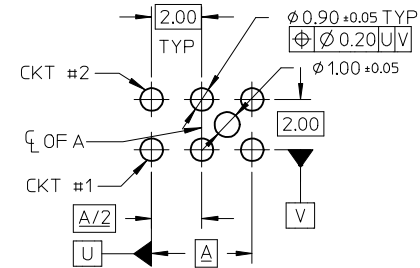
DETAIL4



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:

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

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)

RELEASED EC NO: S2015-1188 DRWNG:GEMARLY CHKD:CGOH APPR:KHLIM 2015/04/15 2015/06/29 2015/06/29	DESCRIPTION	QUALITY SYMBOLS F_A =0 F_C =0 F_P =0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	 THIRD ANGLE PROJECTION			
					DRAWN BY GEMARLY	DATE 2015/04/15	TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER					
					CHECKED BY	DATE						
					APPROVED BY KHLIM	DATE 2015/06/29	molex					
					MATERIAL NO.							
REV		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						

10		9		8		7		6		5		4		3		2		1		
6 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								F
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H	
E	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															
		87831-0642	N.A	N.A	3															
		87831-0642	N.A	N.A	3	N.A	YES	YES	N.A	N.A	N.A						2.00	2.50		3.60 ^{+0.15} _{-0.10}
		87831-0643	N.A	N.A	2															
87831-0644	N.A	N.A	3																	
87831-0645	N.A	N.A	2																	
D		87831-0646	N.A	N.A	3	N.A	YES	YES	N.A	N.A	YES	2.50	3.60±0.20							
		87831-0632	N.A	N.A	2															
		87831-5119	N.A	N.A	1									N.A	N.A	YES	N.A	YES	N.A	2.50

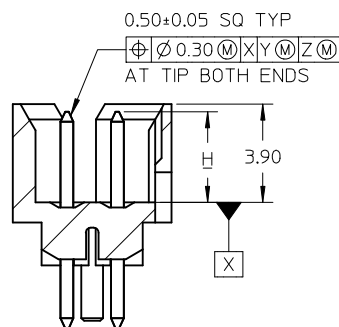
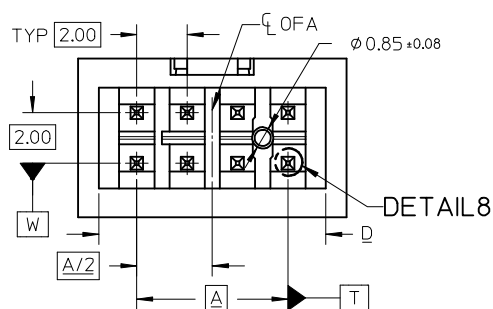
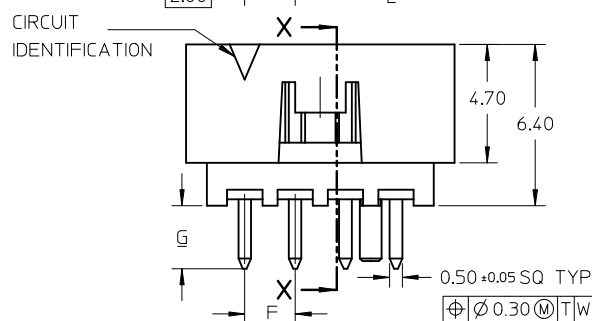
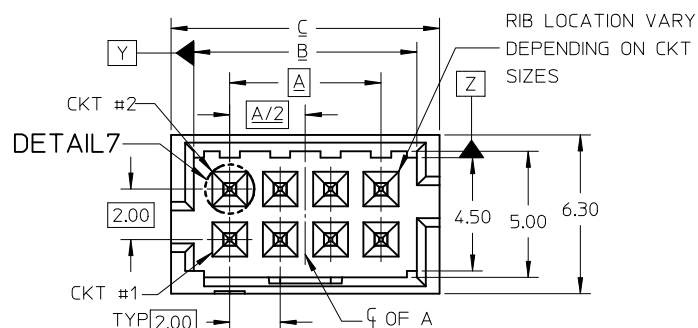
PLATING OPTIONS:																	
1 - 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.																	
2 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL 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 DRWN:GMENARLY 2015/04/15 CHKD:GGOH 2015/06/29 APPR:KHL IM 2015/06/29 A	DESCRIPTION REV	QUALITY SYMBOLS F=0 F=0 F=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
			4 PLACES 3 PLACES 2 PLACES 1 PLACE 0 PLACE	mm	INCH	DRAWN BY GMENARLY	DATE 2015/04/15	TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER molex		
				± ---	± ---	CHECKED BY	DATE			
				± 0.20	± ---	APPROVED BY KHL IM	DATE 2015/06/29	DOCUMENT NO. SD-87831-0001		
				± ---	± ---	MATERIAL NO.				SHEET NO. 5 OF 13
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						

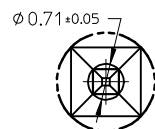
fb_frame_A3_P_AM_T
Rev. G 2012/01/11

9		8		7		6		5		4		3		2		1	
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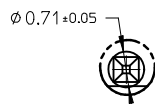
8 TO 12 CIRCUITS



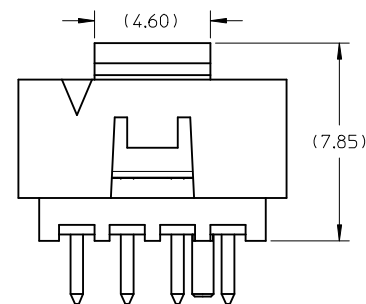
SECTION X-X



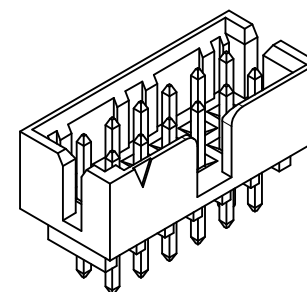
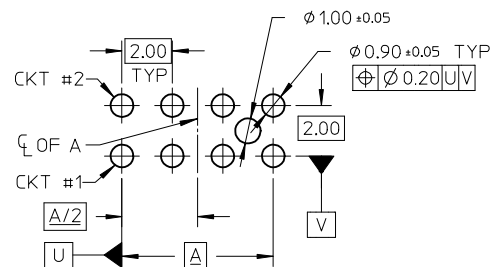
DETAIL 7



DETAIL 8



VIEW FOR HEADER WITH CAP

VIEW FOR HEADER WITH CENTER
POLARIZATION AND DUAL SIDE 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:

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

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:

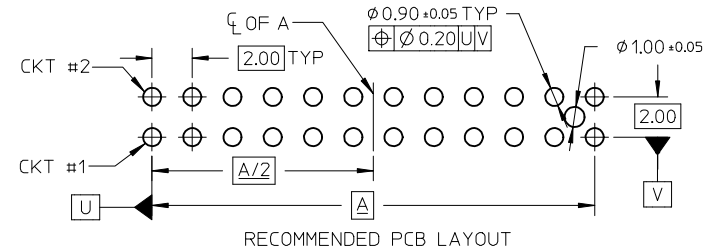
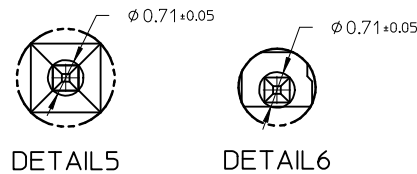
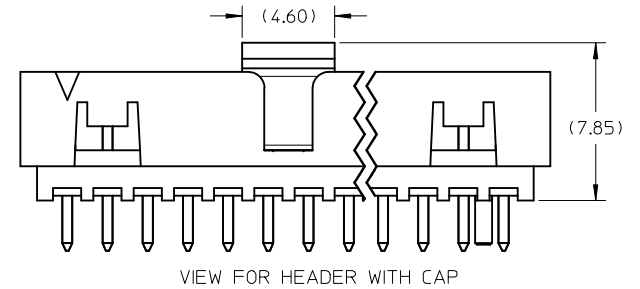
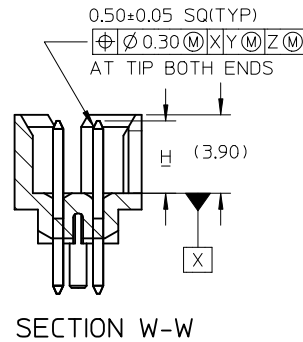
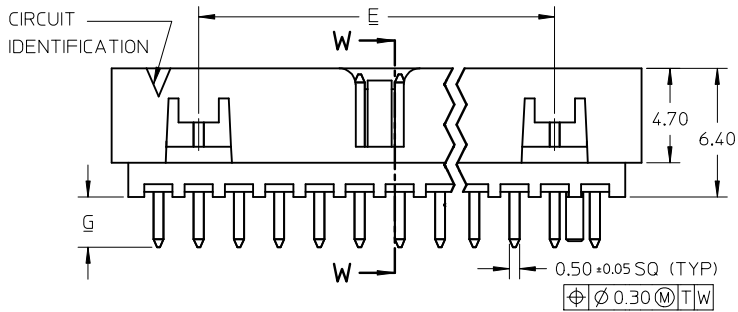
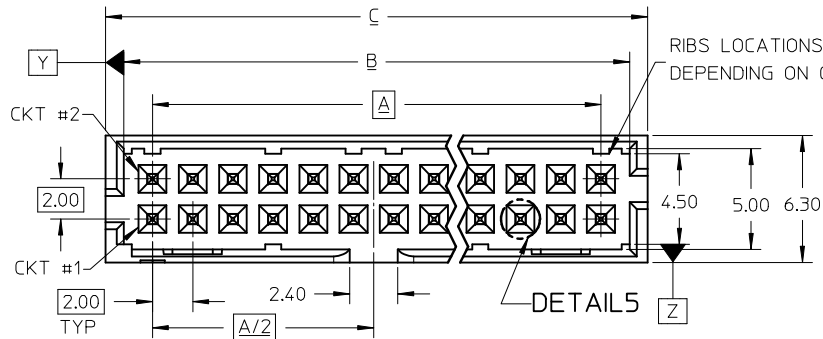
79107 (GOLD PLATED). 78787 (TIN PLATED)

RELEASED EC NO: S2015-1188 DRAWN:GMENARLY CHK'D:CGOH APPR:KHL IM	2015/04/15 2015/06/29 2015/06/29	DESCRIPTION A	REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	 THIRD ANGLE PROJECTION			
				 =0	4 PLACES	± ---	± ---	DRAWN BY GMENARLY	DATE 2015/04/15	TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER 					
				 =0	3 PLACES	± ---	± ---	CHECKED BY	DATE						
				 =0	2 PLACES	± 0.20	± ---	APPROVED BY	DATE						
					1 PLACE	± ---	± ---	KHL IM	2015/06/29						
					0 PLACE	± ---	± ---	MATERIAL NO.		DOCUMENT NO.		SHEET NO.			
								ANGULAR ± 3 °		SEE TABLE		SD-87831-0001		6 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					

		10	9	8	7	6	5	4	3	2	1										
		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							F		
						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	E	
		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	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						2.50				
		87831-0842	N.A	N.A	3													N.A			YES
		87831-5441	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						2.80				
		87831-5442	N.A	N.A	3													N.A			YES
N.A	87831-5541	N.A	2	N.A	YES	YES	N.A	N.A	N.A	2.50											
N.A	87831-5542	N.A	3								N.A	YES	YES	N.A	N.A	N.A	2.50				
87831-5741	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A	2.50											
87831-5742	N.A	N.A	3								N.A	YES	YES	N.A	N.A	N.A	2.50				
87831-0832	N.A	N.A	2	N.A	YES	YES	N.A	N.A	YES	3.60 ^{+0.15} _{-0.10}											
87831-0843	N.A	N.A	2								N.A	YES	N.A	YES	N.A	N.A	2.50				
87831-0844	N.A	N.A	3	N.A	YES	N.A	YES	N.A	YES	2.50											
87831-0845	N.A	N.A	2								N.A	YES	N.A	YES	N.A	YES	2.50				
87831-0846	N.A	N.A	3	N.A	YES	N.A	YES	N.A	YES	2.50											

	10	9	8	7	6	5	4	3	2	1																						
	10 TO 12 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						F														
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F		G	H												
E	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	E												
		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	N.A	N.A	YES	N.A	YES	N.A							3.50														
		87831-1011	N.A	N.A	3																											
		87831-1028	N.A	N.A	2																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	N.A	N.A	YES	N.A	YES	YES						3.50															
		87831-1041	N.A	N.A	2																											
87831-1042	N.A	87831-5553	3	N.A	YES													YES			N.A	N.A	N.A	2.50								
87831-1032	N.A	N.A	2																						N.A	YES	YES	N.A	N.A	YES	2.50	
87831-1043	N.A	N.A	2			N.A	YES	N.A	YES	N.A	N.A						2.50															
87831-1044	N.A	N.A	3																													N.A
87831-1045	N.A	N.A	2	N.A	YES													N.A			YES	N.A	YES	2.50								
87831-1046	N.A	N.A	3																													
D	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	D					
		87831-1220	N.A			N.A	2																									
		87831-1221	N.A	N.A	3																											
		87831-1236	N.A	N.A	4																											
		87831-1228	N.A	N.A	2	N.A	N.A	YES	N.A	YES	YES	2.50																				
		87831-1229	N.A	N.A	3																											
		87831-1241	N.A	N.A	2								N.A					YES		YES	N.A	N.A	N.A	2.50								
		87831-1242	N.A	N.A	3																											
		87831-1255	87831-1256	N.A	2	N.A	YES	YES	N.A	N.A	N.A	3.50																				
		87831-1232	N.A	N.A	2																				N.A			YES	YES	N.A	N.A	YES
87831-1243	N.A	N.A	2	N.A	YES								N.A					YES		N.A	N.A	2.50										
87831-1244	N.A	N.A	3																				N.A	YES								
87831-1245	N.A	N.A	2			N.A	YES	N.A	YES	N.A	YES	2.50																				
87831-1246	N.A	N.A	3																													
C		PLATING OPTIONS:																		C												
		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.																														
B		4 - 2.50um/100uin MIN. MATTE TIN OVER 1.25um/50uin MIN. NICKEL OVERALL.																B														
A																		A														

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:
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 CHKD:CGOH APPR:KHL IM REV: A	2015/04/15 2015/06/29 2015/06/29 DESCRIPTION REV	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	± ---	± ---	CHECKED BY	DATE					
			3 PLACES	± ---	± ---							
			2 PLACES	± 0.20	± ---	APPROVED BY KHL IM	DATE 2015/06/29	molex				
			1 PLACE	± ---	± ---	MATERIAL NO.	DOCUMENT NO.					SHEET NO.
			0 PLACE	± ---	± ---	SEE TABLE						SD-87831-0001
			ANGULAR ± 3 °									
			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		

MILLIGRID
2MM PITCH, THROUGH HOLE
VERTICAL SHROUDED HEADER

molex

SD-87831-0001

SHEET NO.
9 OF 13

		10	9	8	7	6	5	4	3	2	1																					
		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						F														
						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	E												
		87831-1420	N.A	87831-5554	2																											
		87831-1421	N.A	N.A	3																											
		87831-1436	N.A	N.A	4	YES	N.A	YES	N.A	YES	YES							2.50														
		87831-1428	N.A	N.A	2													3.50														
		87831-1429	N.A	N.A	3													3.50														
		87831-1435	N.A	N.A	3	YES	N.A	YES	N.A	YES	N.A							3.50														
87831-1410	N.A	N.A	2																													
87831-1411	N.A	N.A	3																													
D	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	D												
		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							2.50														
		87831-1628	N.A	N.A	2													3.50														
		87831-1629	N.A	N.A	3																											
87831-1635	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES																							
C	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	C												
		87831-1820	N.A	N.A	2																											
		87831-1821	N.A	N.A	3																											
		87831-1836	N.A	N.A	4	YES	N.A	YES	N.A	YES	YES							2.50														
		87831-1828	N.A	N.A	2													3.50														
		87831-1829	N.A	N.A	3																											
A	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	A												
		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							2.50														
		87831-2028	N.A	N.A	2													3.50														
		87831-2029	N.A	N.A	3													3.50														
		87831-2035	N.A	N.A	3	YES	N.A	YES	N.A	YES	N.A							3.50														
87831-2010	N.A	N.A	2																													
87831-2011	N.A	N.A	3	YES	N.A	YES	N.A	YES	N.A																							
B																				B												
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.																				A												
RELEASED EC NO: S2015-1188 DRWN:GEMENARLY CHKD:GGOH APPR:KHL IM 2015/04/15 2015/06/29 2015/06/29 A																				QUALITY SYMBOLS F _A =0 F _G =0 F _P =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 DRAWN BY DATE GEMENARLY 2015/04/15 CHECKED BY DATE APPROVED BY DATE KHL IM 2015/06/29 MATERIAL NO. SEE TABLE		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER molex		DOCUMENT NO. SD-87831-0001		SHEET NO. 10 OF 13	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																																
		10	9	8	7	6	5	4	3	2	1																					

		10	9	8	7	6	5	4	3	2	1									
		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						F		
						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	YES	N.A	YES	N.A	YES	YES							2.50		
		87831-2228	N.A	N.A	2															
87831-2229	N.A	N.A	3																	
E	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	YES	N.A	YES	N.A	YES	YES							2.50		
		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										
D	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	YES	N.A	YES	N.A	YES	YES							2.50		
		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		
C	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	YES	N.A	YES	N.A	YES	YES							2.50		
		87831-2828	N.A	N.A	2															
		87831-2829	N.A	N.A	3															
B	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	YES	N.A	YES	N.A	YES	YES							2.50		
		87831-3028	N.A	N.A	2															
		87831-3029	N.A	N.A	3															
		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		
A	PLATING OPTIONS:					RELEASED EC NO: S2015-1188 DRWN:GMENARLY CHKD:CGOH APPR:KHL IM REV	2015/04/15 2015/06/29 2015/06/29	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		A	
	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.								4 PLACES	± ---	± ---	DRAWN BY	DATE	TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER						
	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 PLACES	± ---	± ---	GMENARLY	2015/04/15							
	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.								2 PLACES	± 0.20	± ---	CHECKED BY	DATE	APPROVED BY KHL IM 2015/06/29						
	4 - 2.50um/100uin MIN. MATTE TIN OVER 1.25um/50uin MIN. NICKEL OVERALL.								1 PLACE	± ---	± ---	MATERIAL NO. DOCUMENT NO. SHEET NO.								
					0 PLACE	± ---	± ---	SEE TABLE SD-87831-0001 11 OF 13												
					ANGULAR ± 3 °		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						
		10	9	8	7	6	5	4	3	2	1									

		10	9	8	7	6	5	4	3	2	1											
		32 TO 40 CIRCUITS																				
F	CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION							F			
						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	YES	N.A	YES	N.A	YES	YES							2.50				
		87831-3228	N.A	N.A	2																	
87831-3229	N.A	N.A	3																			
E	34	87831-3419	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	32.00	34.85	36.65	35.00	28.00	N.A	2.50	3.60±0.20			
		87831-3420	N.A	N.A	2																	
		87831-3421	N.A	N.A	3																	
		87831-3436	N.A	N.A	4	YES	N.A	YES	N.A	YES	YES							2.50				
		87831-3428	N.A	N.A	2																	
		87831-3429	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							3.50				
		87831-3435	N.A	N.A	3																	
D	36	87831-3619	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	34.00	36.85	38.65	37.00	30.00	N.A	2.50	3.60±0.20			
		87831-3620	N.A	N.A	2																	
		87831-3621	N.A	N.A	3																	
		87831-3636	N.A	N.A	4	YES	N.A	YES	N.A	YES	YES							2.50				
		87831-3628	N.A	N.A	2																	
		87831-3629	N.A	N.A	3																	
C	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	YES	N.A	YES	N.A	YES	YES							2.50				
		87831-3828	N.A	N.A	2																	
		87831-3829	N.A	N.A	3																	
	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	YES	N.A	YES	N.A	YES	YES							2.50				
		87831-4028	N.A	N.A	2																	
		87831-4029	N.A	N.A	3	YES	N.A	YES	N.A	YES	N.A							3.50				
		87831-4010	N.A	N.A	2																	
B																					B	
A	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.																				A	
	RELEASED EC NO: S2015-1188 DRWN:GMENARLY 2015/04/15 CHKD:GQH 2015/06/29 APPR:KHLIM 2015/06/29					QUALITY SYMBOLS F _A =0 F _G =0 F _P =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 DRAWN BY DATE GMENARLY 2015/04/15 CHECKED BY DATE APPROVED BY DATE KHLIM 2015/06/29 MATERIAL NO. SEE TABLE		SCALE NTS		DESIGN UNITS METRIC		THIRD ANGLE PROJECTION		MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER molex DOCUMENT NO. SD-87831-0001 SHEET NO. 12 OF 13 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
	fb_frame_A3_P_AM.T Rev. G 2012/01/11																				A	

	10	9	8	7	6	5	4	3	2	1														
42 TO 50 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								F				
						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																			
E	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																				
87831-4435		N.A	N.A	3	YES	N.A	YES	N.A	YES	YES	3.50													
D	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																				
C	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																				
A	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																				
87831-5035		N.A	N.A	3	YES	N.A	YES	N.A	YES	YES	3.50													
B																					B			
A	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.																				A			
	RELEASED EC NO: SZ015-1188 DRWN:GMEARLY CHKD:CGOH APPR:KHL IM		DESCRIPTION REV	QUALITY SYMBOLS ▽A=0 ▽B=0 ▽F=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION													
						DRAWN BY GMENARLY	DATE 2015/04/15	MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER molex																
						CHECKED BY	DATE																	
	4 PLACES ± --- ± ---			DRAWN BY DATE		SD-87831-0001																		
	3 PLACES ± --- ± ---			CHECKED BY DATE																				
	2 PLACES ± 0.20 ± ---			APPROVED BY DATE		SHEET NO. 13 OF 13																		
	1 PLACE ± --- ± ---			KHL IM 2015/06/29																				
	0 PLACE ± --- ± ---			MATERIAL NO.																				
	ANGULAR ± 3 °																							
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																				
tb_frame_A3_P_AM.T Rev. G 2012/01/11		9	8	7	6	5	4	3	2	1														