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Part Number: [0878314828](#)
Status: **Active**
Overview: [milligrid](#)
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Vertical, Through Hole, Shrouded, Lead-free, 48 Circuits, 0.38µm (15µ") Gold (Au) Plating, Center Polarization Slot, with Locking Windows, PCB Locator, Tube

Documents:
[3D Model](#) [Product Specification PS-87831-027 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

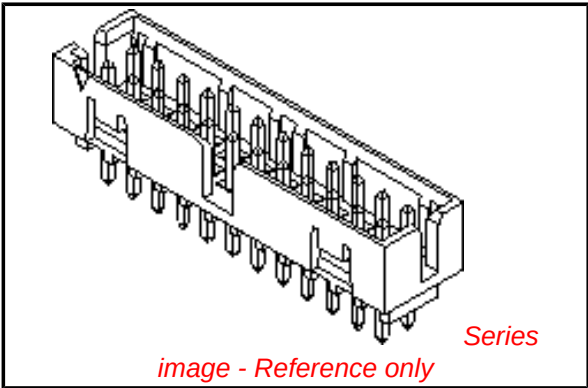
CSA LR19980
UL E29179

General

Product Family PCB Headers
Series [87831](#)
Application Wire-to-Board
Comments Contact Molex for application in automotive industry
Overview [milligrid](#)
Product Name Milli-Grid™

Physical

Breakaway No
Circuits (Loaded) 48
Circuits (maximum) 48
Color - Resin Black
First Mate / Last Break No
Flammability 94V-0
Glow-Wire Compliant No
Guide to Mating Part No
Keying to Mating Part None
Lock to Mating Part Yes
Material - Metal Brass
Material - Plating Mating Gold
Material - Plating Termination Tin
Material - Resin Nylon
Number of Rows 2
Orientation Vertical
PC Tail Length (in) 0.098 In
PC Tail Length (mm) 2.50 mm
PCB Locator Yes
PCB Retention None
PCB Thickness Recommended (in) 0.062 In
PCB Thickness Recommended (mm) 1.60 mm
Packaging Type Tube
Pitch - Mating Interface (in) 0.079 In
Pitch - Mating Interface (mm) 2.00 mm
Pitch - Term. Interface (in) 0.079 In
Pitch - Term. Interface (mm) 2.00 mm
Plating min: Mating (µin) 15
Plating min: Mating (µm) 0.38
Plating min: Termination (µin) 76
Plating min: Termination (µm) 1.88
Polarized to Mating Part Side Slots (2)



EU RoHS
ELV and RoHS
Compliant
REACH SVHC
Contains SVHC: No
Halogen-Free
Status
Not Reviewed

China RoHS



Need more information on product environmental compliance?

Email productcompliance@molex.com
For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

Search Parts in this Series
[87831Series](#)

Mates With
[50394](#) Wire-to-Board Terminals. [51110](#) Wire-to-Board Crimp Housing. [87568](#) Wire-to-Board IDT Housings. [79107](#) Board-to-Board Top Entry Through Hole Receptacle. [79108](#) Board-to-Board FFC/FPC Top Entry Through Hole Receptacle. L

Polarized to PCB	Yes
Shrouded	Fully
Stackable	No
Surface Mount Compatible (SMC)	Yes
Temperature Range - Operating	-55°C to +105°C
Termination Interface: Style	Through Hole
Electrical	
Current - Maximum per Contact	2A
Voltage - Maximum	125V
Material Info	
Reference - Drawing Numbers	
Product Specification	PS-87831-027
Sales Drawing	SD-87831-020

This document was generated on 05/25/2010

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10 9 8 7 6 5 4 3 2 1

F

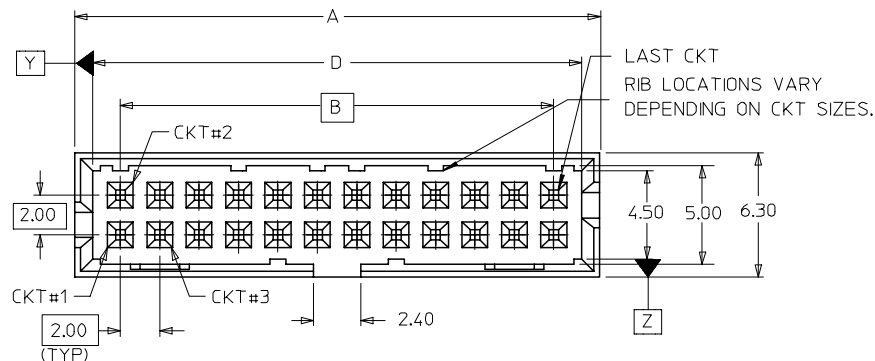
E

D

C

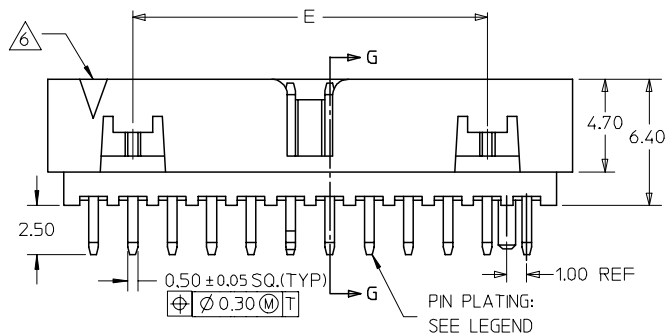
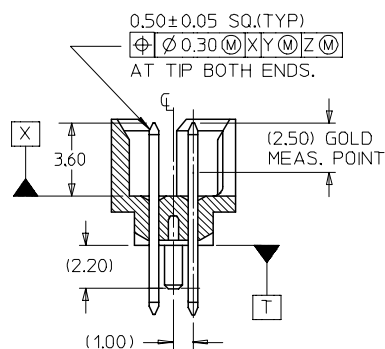
B

A

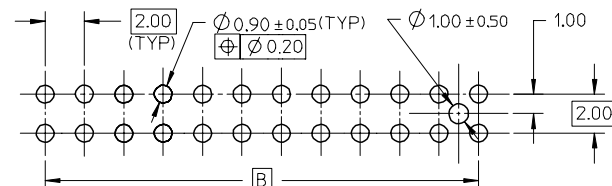


NOTES:

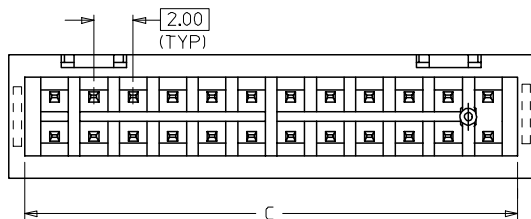
- FOR ILLUSTRATION PURPOSES, 24 CKT SIZE WAFER IS SHOWN.
- MATERIAL :
HOUSING : 30% G.F., NYLON 46, UL94V-0, COLOR BLACK.
PIN : 0.50MM SQ.PHOSPHOR BRONZE.
- PRODUCT SPECIFICATION PS-87831-027 APPLIES.
- NO CENTRE POLARIZATION SLOT FOR CKT SIZE 6.
- NO SIDE LOCKING SLOT FROM 6 TO 12 CKT SIZE.
- CKT 6 HAS NO IDENTIFICATION TAG.
- THIS HEADER MATES WITH MOLEX :
a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.
b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.
- PARTS TO BE PACKED IN TUBE WITH MOISTURE BARRIER BAG



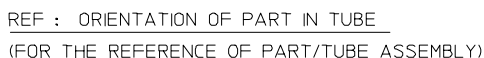
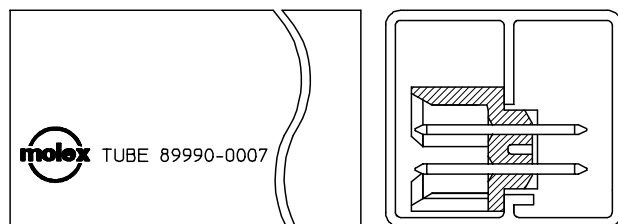
SECTION G-G



RECOMMENDED PCB PATTERN (FOR THICKNESS OF 1.60 ± 0.10)



CORRECT TYPO ERROR EC NO: S2007-1097 DRWN:ATSEE CHKD:SKANG APPR:MLONG 2007/06/20 2007/06/21 2007/06/22	DESCRIPTION	QUALITY SYMBOLS <div>▽=0</div> <div>▽C=0</div>	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
				mm	INCH	DRAWN BY ATSEE	DATE 2003/10/08	TITLE MGRID, SHROUDED HEADER VERTICAL, W/PEG				
			4 PLACES	± ---	± ---	CHECKED BY KCL ING	DATE 2003/11/07					
			3 PLACES	± ---	± ---	APPROVED BY SKTOH	DATE 2003/11/07	MOLEX MOLEX INCORPORATED				
			2 PLACES	± 0.2	± ---	MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-87831-020		SHEET NO. 1 OF 2		
A8	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						



ORIENTATION OF PART IN TUBE

P/N IN TUBE	CKT SIZE	VOID PIN LOCATION	DIMENSION				
			A	B	C	D	E
87831-06**	6	---	8.65	4.00	7.00	6.85	-----
87831-08**	8	---	10.65	6.00	9.00	8.85	-----
87831-10**	10	---	12.65	8.00	11.00	10.85	-----
87831-12**	12	---	14.65	10.00	13.00	12.85	-----
87831-14**	14	---	16.65	12.00	15.00	14.85	8.00
87831-16**	16	---	18.65	14.00	17.00	16.85	10.00
87831-18**	18	---	20.65	16.00	19.00	18.85	12.00
87831-20**	20	---	22.65	18.00	21.00	20.85	14.00
87831-22**	22	---	24.65	20.00	23.00	22.85	16.00
87831-24**	24	---	26.65	22.00	25.00	24.85	18.00
87831-26**	26	---	28.65	24.00	27.00	26.85	20.00
87831-28**	28	---	30.65	26.00	29.00	28.85	22.00
87831-30**	30	---	32.65	28.00	31.00	30.85	24.00
87831-32**	32	---	34.65	30.00	33.00	32.85	26.00
87831-34**	34	---	36.65	32.00	35.00	34.85	28.00
87831-36**	36	---	38.65	34.00	37.00	36.85	30.00
87831-38**	38	---	40.65	36.00	39.00	38.85	32.00
87831-40**	40	---	42.65	38.00	41.00	40.85	34.00
87831-42**	42	---	44.65	40.00	43.00	42.85	36.00
87831-44**	44	---	46.65	42.00	45.00	44.85	38.00
87831-46**	46	---	48.65	44.00	47.00	46.85	40.00
87831-48**	48	---	50.65	46.00	49.00	48.85	42.00
87831-50**	50	---	52.65	48.00	51.00	50.85	44.00
87831-5128	24	12	26.65	22.00	25.00	24.85	18.00

PLATING OPTIONS

28 - 0,38um/15uin GOLD IN CONTACT AREA AND 1,88um/75uin MIN. TIN
IN SOLDER TAIL AREA OVER 1,27um/50uin MIN. NICKEL OVERALL.

29 - 0,76um/30uin GOLD IN CONTACT AREA AND 1,88um/75uin MIN. TIN
IN SOLDER TAIL AREA OVER 1,27um/50uin MIN. NICKEL OVERALL.

CORRECT TYPE ERROR EC NO: S2007-1097 DRAWN:ATSEE CHK'D:SKANG APPR:MLONG A8	2007/06/20 2007/06/21 2007/06/22	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
			=0 =0		mm	INCH	DRAWN BY ATSEE	DATE 2003/10/08	TITLE MGRID, SHROUDED HEADER VERTICAL, W/PEG		
				4 PLACES	± ---	± ---	CHECKED BY	DATE			
				3 PLACES	± ---	± ---	KCL ING	2003/11/07			
				2 PLACES	± 0.2	± ---	APPROVED BY	DATE			
1 PLACE	± ---	± ---	SKTOH	2003/11/07	MOLEX INCORPORATED						
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				MATERIAL NO.		DOCUMENT NO.		SHEET NO. 2 OF 2			
				SIZE A3		SEE TABLE		SD-87831-020			
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