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Part Number: [0878312010](#)
Status: **Active**
Overview: milligrid
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Vertical, Through Hole, Shrouded, Lead-free, 20 Circuits, 0.38µm (15µ") Gold (Au) Plating, with Center Polarization Slot and Locking Windows, 3.50mm (.138") Tail Length, 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) 20
 Circuits (maximum) 20
 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 Phosphor Bronze
 Material - Plating Mating Gold
 Material - Plating Termination Tin
 Material - Resin Nylon
 Number of Rows 2
 Orientation Vertical
 PC Tail Length (in) 0.138 In
 PC Tail Length (mm) 3.50 mm
 PCB Locator No
 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) 75
 Plating min: Termination (µm) 1.88
 Polarized to Mating Part Yes

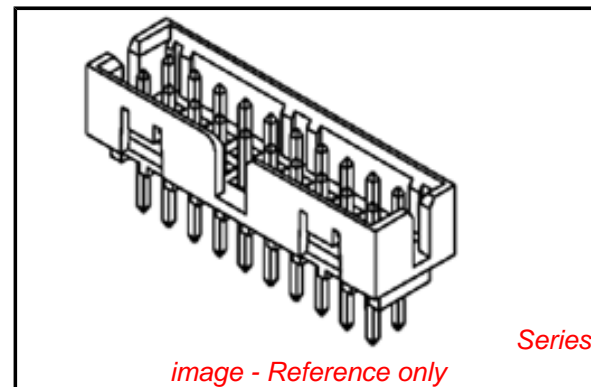


image - Reference only

EU RoHS

**ELV and RoHS
 Compliant**

REACH SVHC

Contains SVHC: No

Halogen-Free

Status

Not Reviewed

**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.

China RoHS



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, [79109](#) Board

Polarized to PCB	No
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

Solder Process Data

Duration at Max. Process Temperature (seconds)	11
Lead-free Process Capability	Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	265

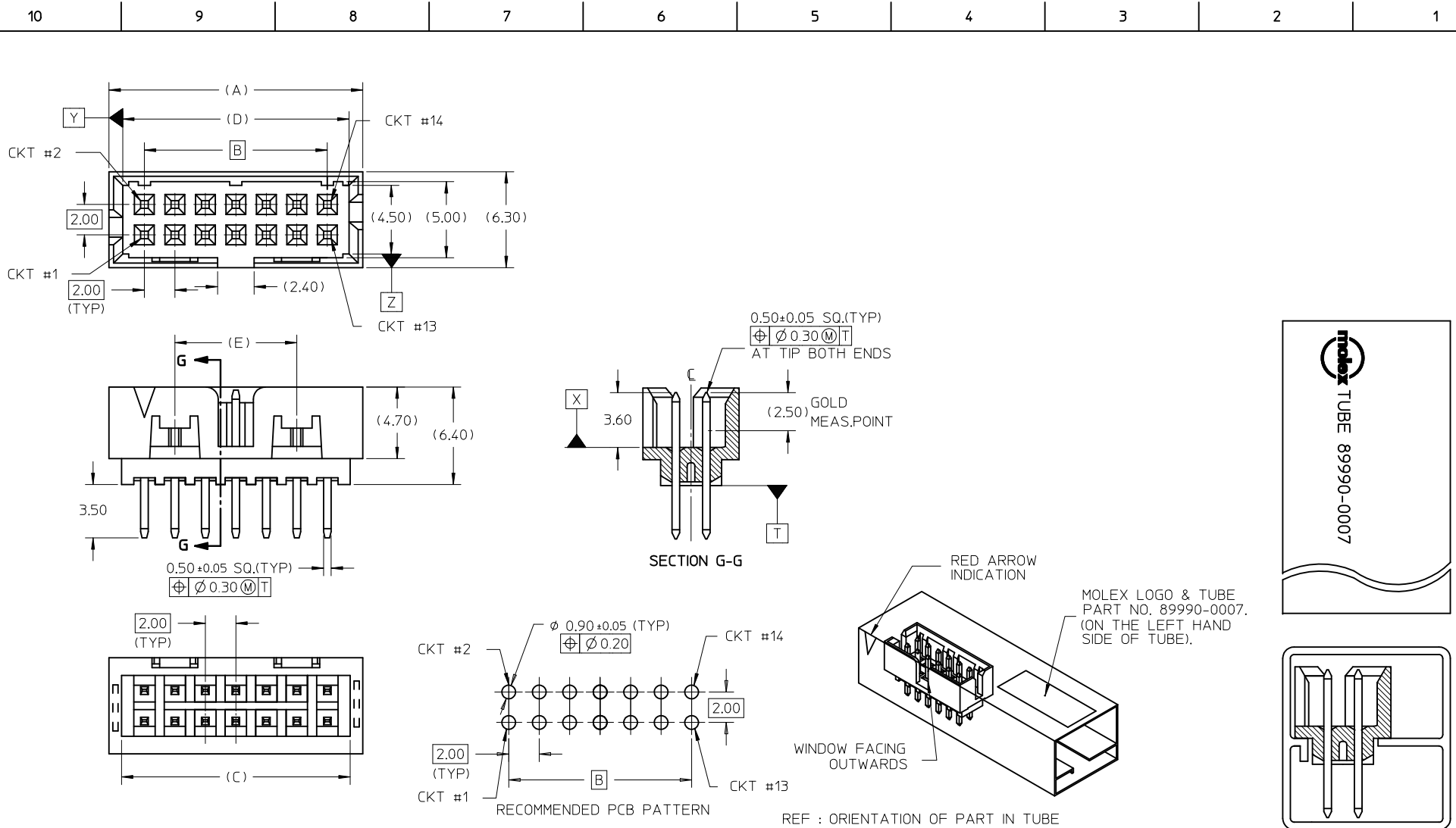
Material Info

Reference - Drawing Numbers

Product Specification	PS-87831-027
Sales Drawing	SD-87831-026

This document was generated on 05/26/2010

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REF : ORIENTATION OF PART IN TUBE
(FOR THE REFERENCE OF PART/TUBE ASSEMBLY)


ADD P/N: 87831-2011 EC NO: S2010-0715 DRWN:SKANG CHKD:ATSEE APPR:MLONG 2010/02/26 2010/03/09 2010/03/13	QUALITY SYMBOLS $F_{\Delta} = 0$ $F_{\square} = 0$ $F_{\nabla} = 0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.2 ± --- 1 PLACE ± --- ± ---	mm INCH	DRAWN BY ATSEE	DATE 2004/01/07	TITLE MGRID, SHROUDED HEADER VERTICAL WITH 3.50MM TAIL LENGTH			
		ANGULAR ± 3 °		CHECKED BY KCLING	DATE 2004/01/14	MOLEX INCORPORATED			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY MLONG	DATE 2010/03/12	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-87831-026	SHEET NO. 1 OF 2	

10 9 8 7 6 5 4 3 2 1

ASSY P/N IN TUBE	CKT SIZE	VOID PIN LOCATION	DIMENSION					PLATING OPTIONS
			A	B	C	D	E	
87831-1010	10	-	12.65	8.00	11.00	10.85	----	1
87831-1410	14	-	16.65	12.00	15.00	14.85	8.00	1
87831-2010	20	-	22.65	18.00	21.00	20.85	14.00	1
87831-2011	20	-	22.65	18.00	21.00	20.85	14.00	3
87831-2610	26	-	28.65	24.00	27.00	26.85	20.00	1
87831-3010	30	-	32.65	28.00	31.00	30.85	24.00	1
87831-7101	34	21	36.65	32.00	35.00	34.85	28.00	1
87831-7102	34	21	36.65	32.00	35.00	34.85	28.00	2
87831-4010	40	-	42.65	38.00	41.00	40.85	34.00	1

NOTES:

1. MATERIAL :
HOUSING : NYLON 46 GLASS FILLED, UL94V-0, COLOR BLACK.
PIN : 0.50MM SQ. PHOSPHOR BRONZE.
2. PLATING OPTIONS :
1 - 0.38um/15uin MIN. GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN
IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
2 - GOLD FLASH IN CONTACT AREA AND 1.88um/75uin MIN.TIN
IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
3 - 0.76um/30uin MIN. GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN
IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
3. PRODUCT SPECIFICATION PS-87831-027 APPLIES.
4. THIS HEADER MATES WITH MOLEX :
a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL,
50394 SERIES.
b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.
5. NO SIDE LOCKING SLOT FROM 4 TO 12 CKT SIZE.
6. PARTS TO BE PACKED IN TUBE WITH MOISTURE BARRIER BAG.

ADD P/N: 87831-2011 EC NO: S2010-0715 DRWN:SKANG 2010/02/26 CHKD:ATSEE 2010/03/09 APPR:MLONG 2010/03/13	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 ATSEE	DATE 2004/01/07	TITLE MGRID, SHROUDED HEADER VERTICAL WITH 3.50MM TAIL LENGTH  MOLEX INCORPORATED			
		4 PLACES	± ---	± ---	CHECKED BY KCLING	DATE 2004/01/14				
		3 PLACES	± ---	± ---	APPROVED BY MLONG	DATE 2010/03/12				
2 PLACES	± 0.2	± ---	ANGULAR ± 3 °		MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-87831-026	SHEET NO. 2 OF 2			
1 PLACE	± ---	± ---	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				

9 8 7 6 5 4 3 2 1