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Part Number: [0878331020](#)
Status: **Active**
Overview: [milligrid](#)
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Right Angle, Shrouded, Lead-free, 10 Circuits, 0.38µm (15µ") Gold (Au) Plating, without PCB Locator, without Locking Window, Center Polarization Slot, Tube

Documents:

3D Model	Product Specification PS-87831-027 (PDF)
Drawing (PDF)	RoHS Certificate of Compliance (PDF)

Agency Certification

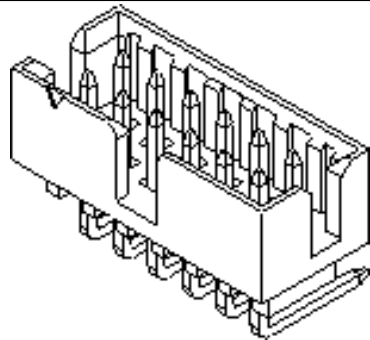
CSA	LR19980
UL	E29179

General

Product Family	PCB Headers
Series	87833
Application	Wire-to-Board
Comments	Contact Molex for application in automotive industry
MolexKits	Yes
Overview	milligrid
Product Name	Milli-Grid™

Physical

Breakaway	No
Circuits (Loaded)	10
Circuits (maximum)	10
Color - Resin	Black
Durability (mating cycles max)	100
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	None
Material - Metal	Phosphor Bronze
Material - Plating Mating	Gold
Material - Plating Termination	Tin
Material - Resin	Nylon
Number of Rows	2
Orientation	Right Angle
PC Tail Length (in)	0.085 In
PC Tail Length (mm)	2.16 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



*Series
image - Reference only*

EU RoHS

**ELV and RoHS
Compliant**
**REACH SVHC
Contains SVHC: No**
**Halogen-Free
Status**

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
[87833Series](#)

Mates With

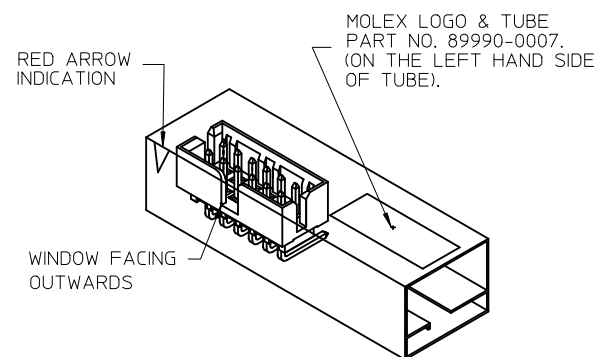
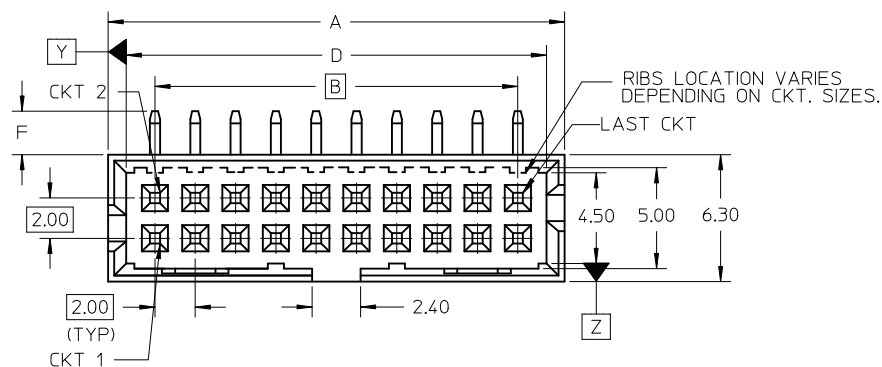
[50394](#) Wire-to-Board Terminals. [51110](#)
Wire-to-Board Crimp Housing. [87568](#) Wire-
to-Board IDT Housings. [79107](#) Board-to-
Board Top Entry Through Hole Receptacle.
[79108](#) Board-to-Board FFC/FPC Top Entry
Through Hole Receptacle. L

Plating min: Termination (µm)	1.88
Polarized to Mating Part	Center Slot
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	SMC & 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-87833-010

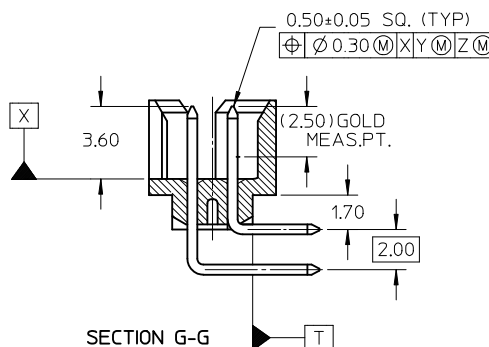
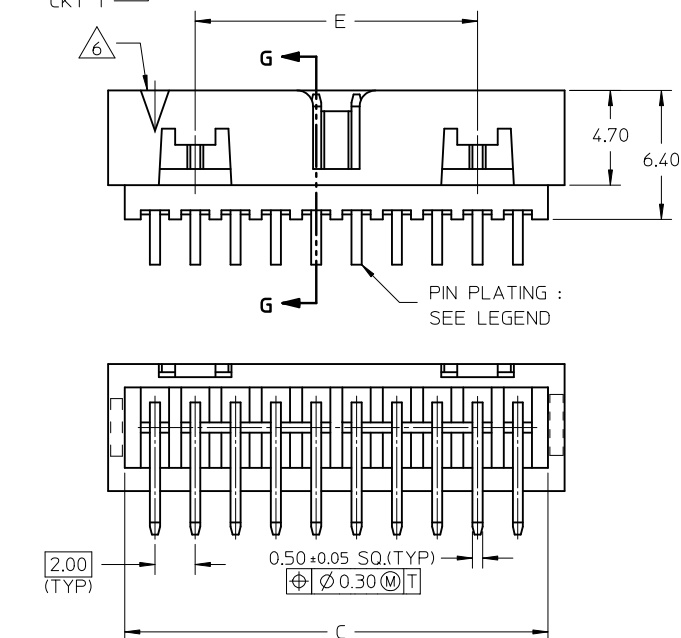
This document was generated on 06/08/2010

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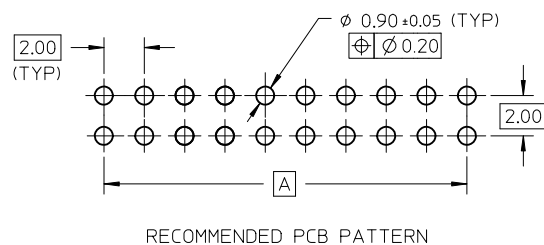


REF: ORIENTATION OF PART IN TUBE
(FOR THE REFERENCE OF PART/TUBE ASSEMBLY)



NOTES:

- FOR ILLUSTRATION PURPOSES, 20 CIRCUIT SIZE WAFER IS SHOWN.
- MATERIAL :
HOUSING : 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 4 AND 6.
- NO SIDE LOCKING SLOT FROM 4 TO 12 CKT SIZE.
- CKT 4 & 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.
- PLATING SPECIFICATION REFERRED TO SHEET 2.



ADD P/N 87833-64/6520 EC NO: S2010-0510 DRWN:SKANG CHKD:ATSEE APPR:MLONG	2009/12/17 2010/01/04 2010/01/05	DESCRIPTION	QUALITY SYMBOLS ▽_F=0 ▽_C=0 ▽_P=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	mmINCH	DRAWN BY ATSEE	DATE 2003/10/23	TITLE MGRID, SHROUDED HEADER W/SLOT AND STANDOFF, R/A			
						CHECKED BY KCL ING	DATE 2003/11/07				
						APPROVED BY MLONG	DATE 2010/01/05				
						ANGULAR ± 3 °		MATERIAL NO.			DOCUMENT NO.
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		SD-87833-010			
						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										
F	PLS REFER TO PART 87833-***3* FOR CENTER LOCKING SLOT OPTION.					PART NO.	CKT SIZE	VOID PIN LOCATION	DIMENSION						9 PLATING OPTION	F				
									A	B	C	D	E	F	2.16		19,20 OR 21			
						87833-04**	4	-	6.65	2.00	5.00	4.85	——							
						87833-06**	6	-	8.65	4.00	7.00	6.85	——							
						87833-08**	8	-	10.65	6.00	9.00	8.85	——							
						87833-10**	10	-	12.65	8.00	11.00	10.85	——							
						87833-12**	12	-	14.65	10.00	13.00	12.85	——							
						87833-14**	14	-	16.65	12.00	15.00	14.85	8.00							
						87833-16**	16	-	18.65	14.00	17.00	16.85	10.00							
						87833-18**	18	-	20.65	16.00	19.00	18.85	12.00					18,19,20 OR 21		
E	PART NUMBER LEGEND : 87833 - * * * * *					87833-20**	20	-	22.65	18.00	21.00	20.85	14.00			2.16		19,20 OR 21		
						87833-22**	22	-	24.65	20.00	23.00	22.85	16.00							
						87833-24**	24	-	26.65	22.00	25.00	24.85	18.00							
						87833-26**	26	-	28.65	24.00	27.00	26.85	20.00							
						87833-28**	28	-	30.65	26.00	29.00	28.85	22.00							
						87833-30**	30	-	32.65	28.00	31.00	30.85	24.00							
						87833-32**	32	-	34.65	30.00	33.00	32.85	26.00							
						87833-34**	34	-	36.65	32.00	35.00	34.85	28.00							
						87833-36**	36	-	38.65	34.00	37.00	36.85	30.00							
						87833-38**	38	-	40.65	36.00	39.00	38.85	32.00							
D	00/ 20 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL. 21 - 0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.					87833-40**	40	-	42.65	38.00	41.00	40.85	34.00		2.16	20				
						87833-42**	42	-	44.65	40.00	43.00	42.85	36.00							
						87833-44**	44	-	46.65	42.00	45.00	44.85	38.00							
						87833-46**	46	-	48.65	44.00	47.00	46.85	40.00							
						87833-48**	48	-	50.65	46.00	49.00	48.85	42.00							
						87833-50**	50	-	52.65	48.00	51.00	50.85	44.00							
						87833-7000	34	21	36.65	32.00	35.00	34.85	28.00	00						
						87833-5121	26	14	28.65	24.00	27.00	26.85	20.00	21						
						87833-5120	10	7	12.65	8.00	11.00	10.85	——							
						87833-5520	40	21	42.65	38.00	41.00	40.85	34.00							
C						87833-5620	20	14	22.65	18.00	21.00	20.85	14.00		3.18	20 OR 21				
						87833-5720	24	13	26.65	22.00	25.00	24.85	18.00							
						87833-5820	14	1	16.65	12.00	15.00	14.85	8.00							
						87833-63**	8	-	10.65	6.00	9.00	8.85	——							
						87833-53**	14	-	16.65	12.00	15.00	14.85	8.00							
						87833-5420	34	-	36.65	32.00	35.00	34.85	28.00							
						87833-5920	4	-	6.65	2.00	5.00	4.85	——							
						87833-6020	12	-	14.65	10.00	13.00	12.85	——							
						87833-6120	16	-	18.65	14.00	17.00	16.85	10.00							
						87833-6220	18	-	20.65	16.00	19.00	18.85	12.00							
B						87833-6420	6	-	8.65	4.00	7.00	6.85	-		3.18	20				
						87833-6520	20	-	22.65	18.00	21.00	20.85	14.00							
A	ADD P/N 87833-64/6520 EC NO: S2010-0510 2009/12/17 DRWN:SKANG CHKD:ATSEE 2010/01/04 APPR:MLONG 2010/01/05 REV					QUALITY SYMBOLS		GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		MOLEX INCORPORATED SD-87833-010 SHEET NO. 2 OF 2				
						$F_A=0$ $F_G=0$ $F_P=0$	4 PLACES 3 PLACES 2 PLACES 1 PLACE	± --- ± --- ± 0.2 ± ---	± --- ± --- ± --- ± ---	DRAWN BY ATSEE CHECKED BY KCL ING APPROVED BY MLONG	DATE 2003/10/23 DATE 2003/11/07 DATE 2010/01/05	MGRID, SHROUDED HEADER W/SLOT AND STANDOFF, R/A								
						ANGULAR ± 3 °				MATERIAL NO.		DOCUMENT NO.								
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