

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0879813044](#)  
**Status:** **Active**  
**Overview:** milligrd  
**Description:** 2.00mm (.079") Pitch Milli-Grid™ Header, Straddle Mount, Right Angle, Shrouded, Lead-free, 44 Circuits, 0.38µm (15µ") Gold (Au) Plating, Center Polarization Slot, without Cap, without PCB Locator, Metal Latch, Tube

**Documents:**

[3D Model](#) [Product Specification PS-87981-018 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

CSA LR19980  
 UL E29179

**General**

Product Family PCB Headers  
 Series [87981](#)  
 Application Wire-to-Board  
 Comments Contact Molex for application in automotive industry  
 Overview [milligrd](#)  
 Product Name Milli-Grid™

**Physical**

Breakaway No  
 Circuits (Loaded) 44  
 Circuits (maximum) 44  
 Durability (mating cycles max) 30  
 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  
 Number of Rows 2  
 Orientation Right Angle  
 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  
 Plating min: Mating (µin) 15.2  
 Plating min: Mating (µm) 0.38  
 Plating min: Termination (µin) 101.6  
 Plating min: Termination (µm) 2.54  
 Polarized to Mating Part Center Slot  
 Polarized to PCB Yes  
 Shrouded Fully  
 Stackable No  
 Temperature Range - Operating -40°C to +85°C  
 Termination Interface: Style Straddle Mount

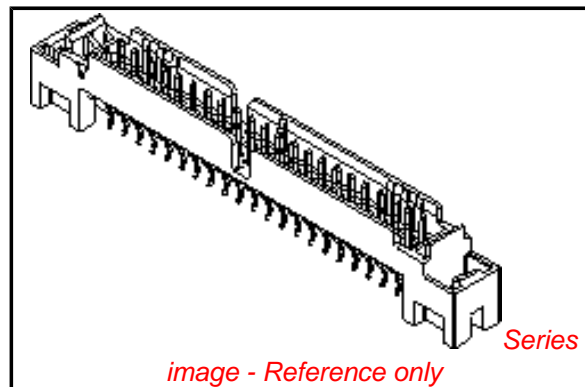


image - Reference only

**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](mailto: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**

[87981Series](#)

**Mates With**

[87985](#) Milli-Grid™ 2mm IDT Receptacle with Metal Latch

**Electrical**

Current - Maximum per Contact	2A
Voltage - Maximum	125V

**Solder Process Data**

Duration at Max. Process Temperature (seconds)	10
Lead-free Process Capability	SMC & Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	260

**Material Info****Reference - Drawing Numbers**

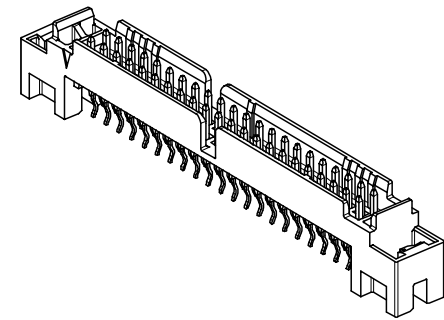
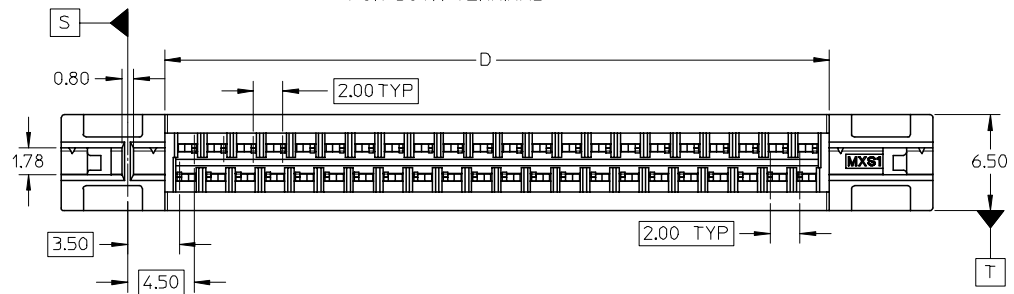
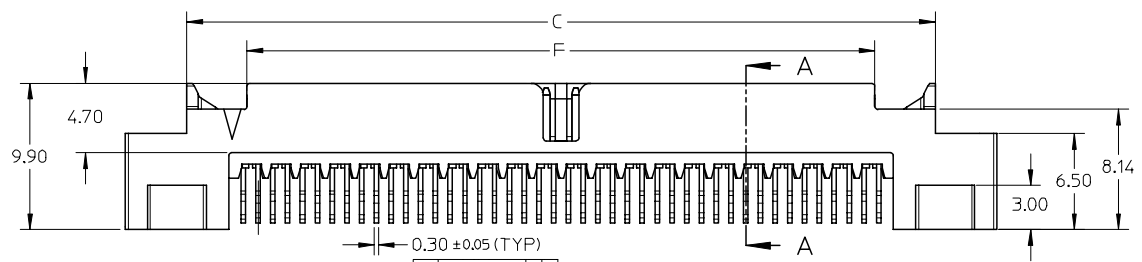
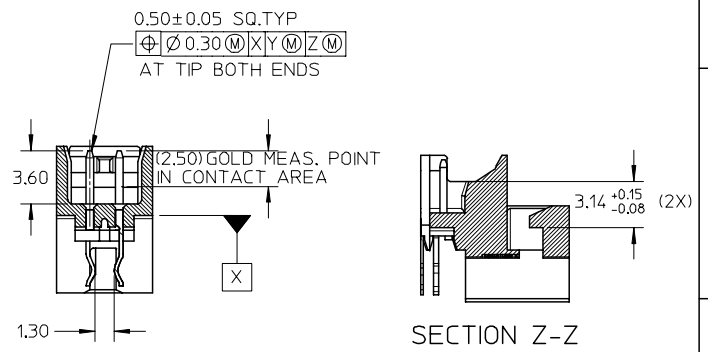
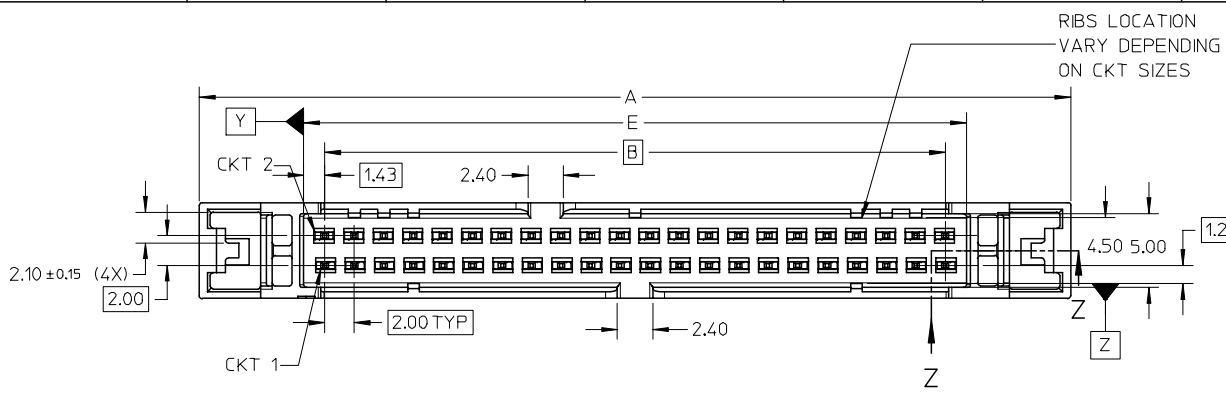
Product Specification	PS-87981-018
Sales Drawing	SD-87981-012

This document was generated on 05/26/2010

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10 9 8 7 6 5 4 3 2 1

PART NUMBER	CKT SIZE	DIMENSION						
		A	B	C	D	E	F	G
87981-3044	44	59.00	42.00	50.65	45.00	44.85	42.50	42.00
87981-3050	50	65.00	48.00	56.65	51.00	50.85	48.50	48.00



- NOTES:
- MATERIAL :  
HOUSING : LCP, GLASS FILLED UL94V-0, COLOR BLACK.  
PIN : PHOSPHOR BRONZE.
  - PLATING:  
0.38µM GOLD IN CONTACT AREA AND 2.54µM MIN. TIN IN SOLDER TAIL AREA OVER 1.27µM MIN. NICKEL OVERALL.
  - FOR ILLUSTRATION PURPOSES, 44 CKT. SIZE WAFER IS SHOWN.
  - THIS IS A LEAD FREE PRODUCT.
  - PRODUCT SPECIFICATION : PS-87981-018
  - PRODUCTS ARE PACKED IN TUBE.
  - PRODUCTS ARE MATED WITH : 87985 SERIES.

EC NO: S2006-0516 DRWN: YLQ1A0 CHKD: BOKOK APPR: PTLIM	2005/11/23 2005/11/24 2005/11/25	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
					MM ONLY	NTS	METRIC	
A1	REV	DESCRIPTION	DRAWN BY		DATE	TITLE		
			YLQ1A0		2005/06/30	MGRID, SHROUDED HEADER STRADDLE MOUNT W/EMBOSSED M/LATCH SLOT		
			CHECKED BY		DATE	MOLEX INCORPORATED		
			BOKOK		2005/07/13	SD-87981-012		
			APPROVED BY		DATE	SHEET NO.		
			PTLIM		2005/07/13	1 OF 2		
			MATERIAL NO.		DOCUMENT NO.			
			SEE TABLE		SD-87981-012			
			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			

9 8 7 6 5 4 3 2 1

10 9 8 7 6 5 4 3 2 1

F

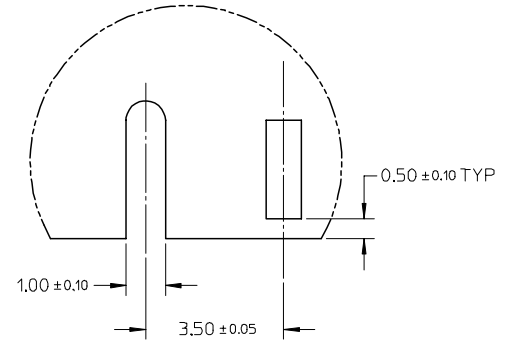
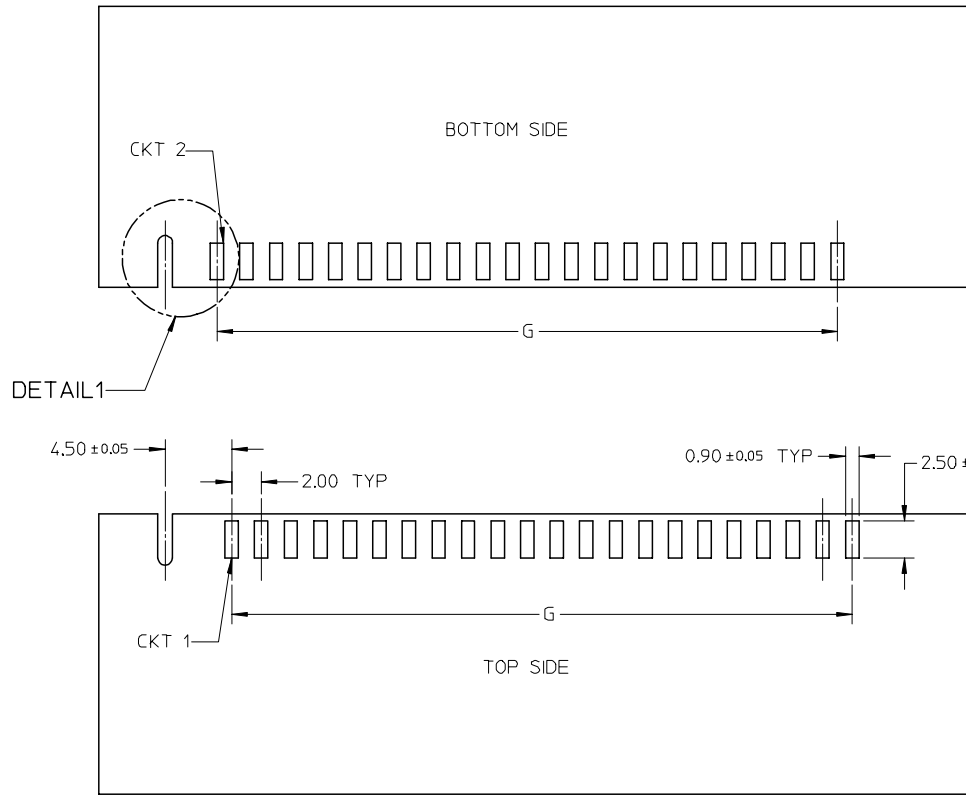
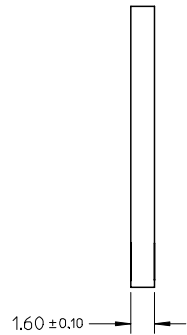
E

D

C

B

A



DETAIL1

DETAIL1

4.50 ± 0.05

2.00 TYP

0.90 ± 0.05 TYP

2.50 ± 0.10 TYP

TOP SIDE

RECOMMENDED P.C.B. LAYOUT

EC NO: S2006-0516 DRWN: YLQ1A0 2005/11/23 CHKD: BOKOK 2005/11/24 APPR: PTLIM 2005/11/25	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY YLQ1A0	DATE 2005/06/30	TITLE MGRID, SHROUDED HEADER STRADDLE MOUNT W/EMBOSSSED M/LATCH SLOT			
		4 PLACES	± ---	± ---	CHECKED BY BOKOK	DATE 2005/07/13				
		3 PLACES	± ---	± ---	APPROVED BY PTLIM		DATE 2005/07/13	MOLEX INCORPORATED		
2 PLACES	± 0.2	± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A3	SEE TABLE			DOCUMENT NO. SD-87981-012	SHEET NO. 2 OF 2
1 PLACE	± ---	± ---			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
A1										

9 8 7 6 5 4 3 2 1