

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

**Part Number:** [0877594674](#)  
**Status:** **Active**  
**Overview:** milligrid  
**Description:** 2.00mm (.079") Pitch Milli-Grid™ Header, Surface Mount, Vertical, 46 Circuits, 0.38µm (15µ") Gold (Au) Selective Plating, without Press-fit Plastic Pegs, with Pick-and-Place Cap, Tape and Reel Packaging, Lead-free

**Documents:**

[3D Model](#) [Product Specification PS-87761-100 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

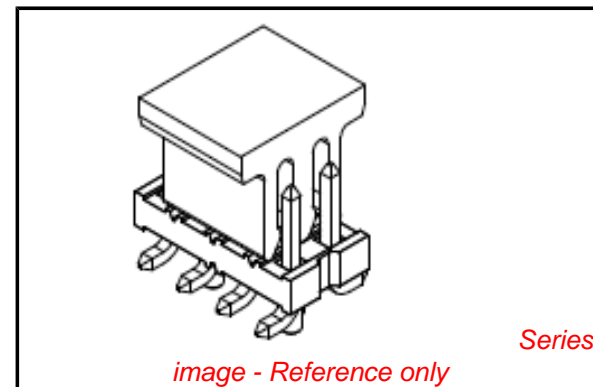
UL E29179

**General**

Product Family PCB Headers  
 Series [87759](#)  
 Application Board-to-Board  
 Overview [milligrid](#)  
 Product Name Milli-Grid™

**Physical**

Breakaway Yes  
 Circuits (Loaded) 46  
 Circuits (maximum) 46  
 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  
 Mated Height (in) 0.150 In  
 Mated Height (mm) 3.80 mm  
 Material - Metal Phosphor Bronze  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin Nylon  
 Number of Rows 2  
 Orientation Vertical  
 PCB Locator No  
 PCB Retention None  
 Packaging Type Embossed Tape on Reel  
 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  
 Polarized to Mating Part No  
 Polarized to PCB No  
 Robotic Placement Pick and Place Cap  
 Shrouded No  
 Stackable No  
 Temperature Range - Operating -55°C to +105°C



**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](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**

[87759Series](#)

**Mates With**

[79107](#) Milli-Grid™ Receptacle, Vertical, Through Hole. [79108](#) Milli-Grid™ Flex-to-Board, Vertical Receptacle. Milli-Grid™ Receptacle, Surface Mount. [79109](#). [87381](#)

Termination Interface: Style

Surface Mount

**Electrical**

Current - Maximum per Contact

2A

Voltage - Maximum

125V

**Solder Process Data**

Lead-free Process Capability

Reflow Capable (SMT only)

Process Temperature max. C

250

**Material Info**

**Reference - Drawing Numbers**

Packaging Specification

PK-89990-485

Product Specification

PS-87761-100

Sales Drawing

SD-87759-117

This document was generated on 05/25/2010

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F

E

D

C

B

A

F

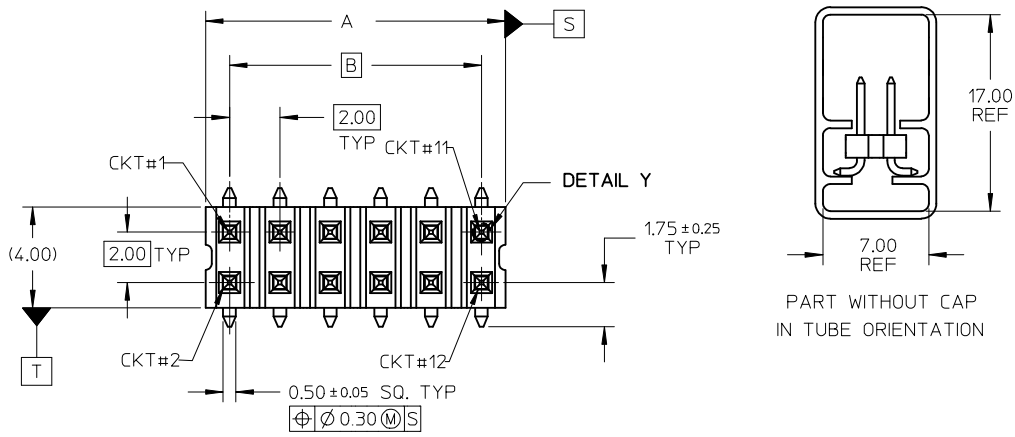
E

D

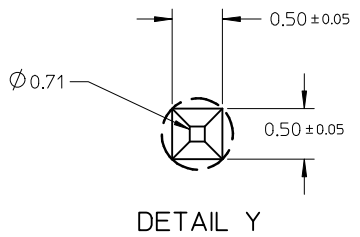
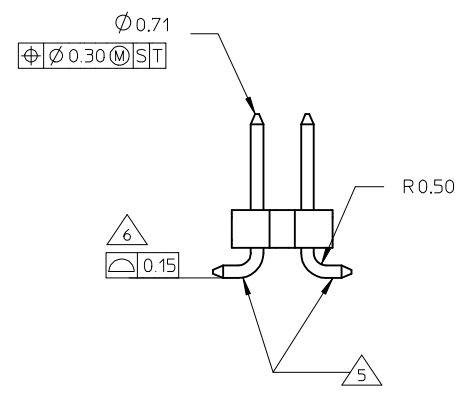
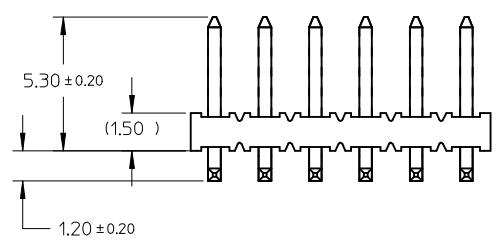
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B

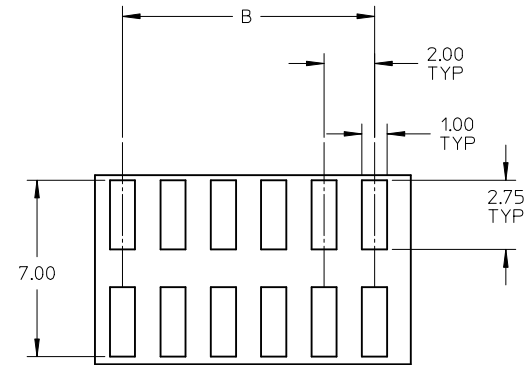
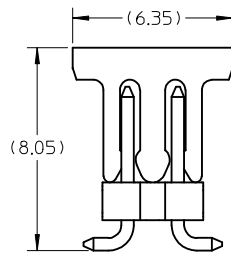
A



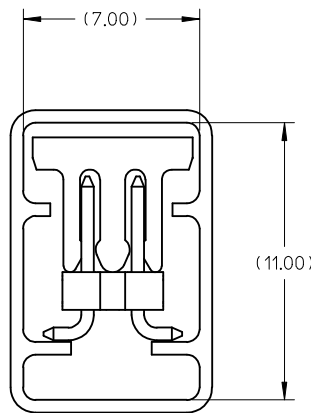
- NOTE:
- MATERIAL:  
HSG & CAP - NYLON, GLASS FILLED  
UL 94V-0, COLOUR BLACK
  - PIN - 0.50 SQ PHOSPHOR BRONZE
  - PLATING:  
0.38um MIN GOLD PLATE AT CONTACT AREA,  
TIN PLATE AT SOLDER AREA,  
BOTH OVER NICKEL UNDERPLATE
  - PIN PUSHOUT FORCE: 1KG MIN IN EITHER DIRECTION
  - PRODUCT SPEC PS-87761-100 APPLIES.
  - BEND DEPRESSION IS ACCEPTABLE SO LONG AS IT DOES NOT AFFECT THE OVERALL COPLANARITY OF TAIL.
  - COPLANARITY IS TO BE MEASURED BY RESTING THE SOLDER TAIL ON A FLAT SURFACE.
  - CAP TO BE LOCATED AS CENTRAL OF PART AS POSSIBLE  
TOP SURFACE OF CAP TO BE FLAT FOR THE PURPOSE OF PICK & PLACE BY VACUUM SUCTION NOZZLE.
  - FOR ILLUSTRATION PURPOSES, 12CKT IS SHOWN.
  - CKT 4 & 6 IS CUT FROM CKT 8 & 12 RESPECTIVELY  
ROUGH EDGES ARE EXPECTED ALONG THE CUTTING EDGES.
  - PART TO BE PACKED IN TRAY ONLY.
  - TUBE LENGTH IS 560MM REF STANDARD.



ADD. OPTION EC NO: S2009-0510 DRWN:ATSEE 2009/01/23 CHKD:SKANG 2009/02/09 APPR:MLONG 2009/02/17	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		mm	INCH	DRAWN BY	DATE	TITLE		
		4 PLACES ± ---	± ---	KSEE	2003/12/12	CUSTOM HEADER		
		3 PLACES ± ---	± ---	CHECKED BY	DATE	MGRID, 2MM DUAL ROW HDR.		
2 PLACES ± 0.2	± ---	KCL ING	2004/01/12	SMT				
1 PLACE ± ---	± ---	APPROVED BY	DATE	MOLEX INCORPORATED				
ANGULAR ± 3 °		SKTOH	2004/01/12	DOCUMENT NO.				
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.		SD-87759-117				
SIZE		SEE TABLE			SHEET NO.			
A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			1 OF 6			

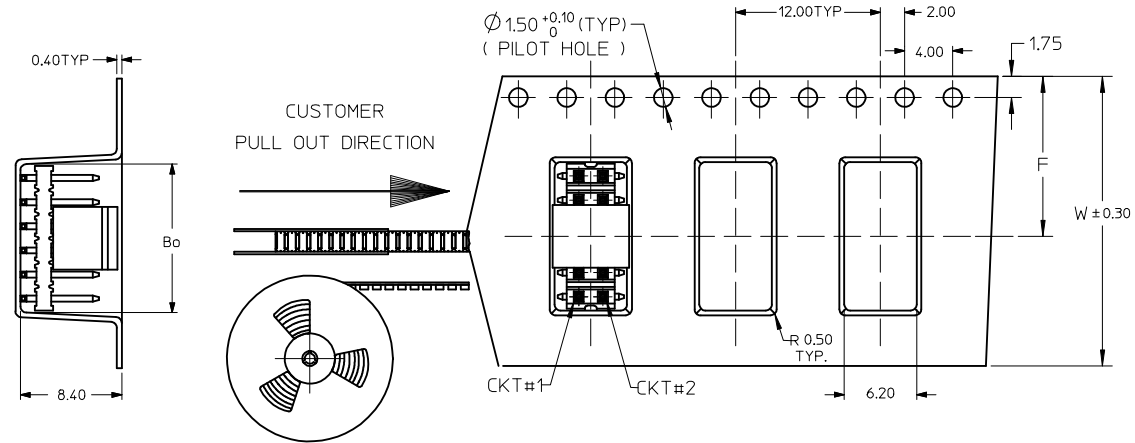


RECOMMENDED SOLDER PAD LAYOUT



ADD. OPTION EC NO: S2009-0510 DRWN:ATSEE 2009/01/23 CHKD:SKANG 2009/02/09 APPR:MLONG 2009/02/17	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION																
		<table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>3 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.2</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± ---</td> <td>± ---</td> </tr> </tbody> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± ---	2 PLACES	± 0.2	± ---	1 PLACE	± ---	± ---	DRAWN BY KSEE	DATE 2003/12/12	TITLE CUSTOM HEADER MGRID, 2MM DUAL ROW HDR. SMT			
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	ANGULAR ± 3 °	CHECKED BY KCLING	DATE 2004/01/12	MOLEX INCORPORATED																			
B2	DESCRIPTION REV	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	APPROVED BY SKTOH	DATE 2004/01/12	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-87759-117	SHEET NO. 2 OF 6	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION															

EMBOSSED CARRIER TAPE TYPE "A"

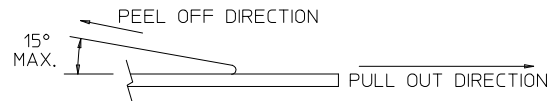


NOTES:

12. LEADER AND TRAILER TAPE



13. PEELING OFF FORCE OF THE TOP TAPE: 20-80gf.  
(PEELING DIRECTION AS SHOWN IN FOLLOWING FIGURE)



14. PACKAGING STANDARD IS AS PER EIA-481.

15. TAPE & REEL QUANTITY = 750 PCS/REEL

16. THE TAPE IS TREATED FOR ANTI-STATIC

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		2 PLACES ± 0.2 ± ---		APPROVED BY SKTOH	DATE 2004/01/12	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-87759-117	SHEET NO. 3 OF 6			
		1 PLACE ± --- ± ---				THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
		ANGULAR ± 3 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS							



THIS TYPE OF CARRIER IS FOR CKT SIZE 8 AND BELOW.

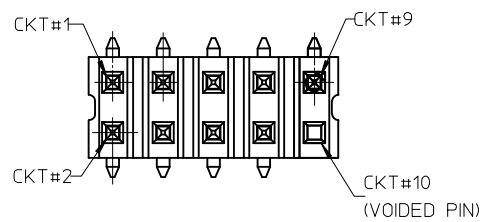


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		3 PLACES	± ---	± ---	CHECKED BY	DATE					
	± 0.2	± ---	KCLING	2004/01/12	MOLEX INCORPORATED DOCUMENT NO. SD-87759-117						
2 PLACES	± 0.2	± ---	APPROVED BY	DATE							
1 PLACE	± ---	± ---	SKTOH	2004/01/12	SHEET NO. 5 OF 6						
ANGULAR ± 3 °			MATERIAL NO.							SEE TABLE	
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B2			A3								

	10	9	8	7	6	5	4	3	2	1		
	PART NUMBER WITHOUT CAP IN TUBE	PART NUMBER WITH CAP IN TUBE	PART NUMBER WITH CAP IN TAPE AND REEL.	CKT SIZE	VOID CKTS	A	B	Bo	F	So	W	EMBOSSED TYPE
F	87759-0414 $\triangle 9$ $\triangle 10$	87759-0464	87759-0474	4	--	NA	2.00	5.40	11.50	-	24.00	C
	87759-0614 $\triangle 9$	87759-0664	87759-0674	6	--	NA	4.00	7.20	11.50	-	24.00	C
	87759-0814	87759-0864	87759-0874	8	--	7.90	6.00	8.20	11.50	-	24.00	C
	87759-1014	87759-1064	87759-1074	10	--	9.90	8.00	10.20	11.50	-	24.00	A
	87759-1002 $\triangle A$	87759-1003 $\triangle A$	87759-1004 $\triangle A$	10	10	9.90	8.00	10.20	11.50	-	24.00	A
E	87759-1214	87759-1264	87759-1274	12	--	11.90	10.00	12.20	11.50	-	24.00	A
	87759-1414	87759-1464	87759-1474	14	--	13.90	12.00	14.20	11.50	-	24.00	A
	87759-1614	87759-1664	87759-1674	16	--	15.90	14.00	16.20	14.20	28.40	32.00	B
	87759-1814	87759-1864	87759-1874	18	--	17.90	16.00	18.20	14.20	28.40	32.00	B
	87759-2014	87759-2064	87759-2074	20	--	19.90	18.00	20.20	14.20	28.40	32.00	B
	87759-2214	87759-2264	87759-2274	22	--	21.90	20.00	22.20	20.20	40.40	44.00	B
D	87759-2414	87759-2464	87759-2474	24	--	23.90	22.00	24.20	20.20	40.40	44.00	B
	87759-2614	87759-2664	87759-2674	26	--	25.90	24.00	26.20	20.20	40.40	44.00	B
	87759-2814	87759-2864	87759-2874	28	--	27.90	26.00	28.20	20.20	40.40	44.00	B
	87759-3014	87759-3064	87759-3074	30	--	29.90	28.00	30.20	20.20	40.40	44.00	B
	87759-3214	87759-3264	87759-3274	32	--	31.90	30.00	32.20	20.20	40.40	44.00	B
	87759-3414	87759-3464	87759-3474	34	--	33.90	32.00	34.20	26.20	52.40	56.00	B
	87759-3614	87759-3664	87759-3674	36	--	35.90	34.00	36.20	26.20	52.40	56.00	B
C	87759-3814	87759-3864	87759-3874	38	--	37.90	36.00	38.20	26.20	52.40	56.00	B
	87759-4014	87759-4064	87759-4074	40	--	39.90	38.00	40.20	26.20	52.40	56.00	B
	87759-4214	87759-4264	87759-4274	42	--	41.90	40.00	42.20	26.20	52.40	56.00	B
	87759-4414	87759-4464	87759-4474	44	--	43.90	42.00	44.20	26.20	52.40	56.00	B
	87759-4614	87759-4664	87759-4674	46	--	45.90	44.00	46.20	26.20	52.40	56.00	B
	87759-4814	87759-4864	87759-4874	48	--	47.90	46.00	48.20	26.20	52.40	56.00	B
B	87759-5014	87759-5064	87759-5074	50	--	49.90	48.00	50.20	34.20	68.40	72.00	B

NOTES:

$\triangle A$  VOIDED PIN CKT#10 FOR PART#87759-1002



<b>ADD. OPTION</b> EC NO: S2009-0510 DRWN:ATSEE 2009/01/23 CHKD:SKANG 2009/02/09 APPR:MLONG 2009/02/17 <b>B2</b>	<b>QUALITY SYMBOLS</b> $\nabla=0$ $\triangle=0$	<b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b> <table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES</td> <td><math>\pm</math> ---</td> <td><math>\pm</math> ---</td> </tr> <tr> <td>3 PLACES</td> <td><math>\pm</math> ---</td> <td><math>\pm</math> ---</td> </tr> <tr> <td>2 PLACES</td> <td><math>\pm</math> 0.2</td> <td><math>\pm</math> ---</td> </tr> <tr> <td>1 PLACE</td> <td><math>\pm</math> ---</td> <td><math>\pm</math> ---</td> </tr> </table>		mm	INCH	4 PLACES	$\pm$ ---	$\pm$ ---	3 PLACES	$\pm$ ---	$\pm$ ---	2 PLACES	$\pm$ 0.2	$\pm$ ---	1 PLACE	$\pm$ ---	$\pm$ ---	<b>DIMENSION STYLE</b> <b>MM ONLY</b> DRAWN BY: KSEE DATE: 2003/12/12 CHECKED BY: KCLING DATE: 2004/01/12 APPROVED BY: SKTOH DATE: 2004/01/12 MATERIAL NO. SKTOH	<b>SCALE</b> NTS <b>DESIGN UNITS</b> METRIC <b>THIRD ANGLE PROJECTION</b>	<b>TITLE</b> CUSTOM HEADER MGRID, 2MM DUAL ROW HDR. SMT <b>MOLEX INCORPORATED</b> DOCUMENT NO. SD-87759-117 SHEET NO. 6 OF 6
				mm	INCH															
			4 PLACES	$\pm$ ---	$\pm$ ---															
			3 PLACES	$\pm$ ---	$\pm$ ---															
2 PLACES	$\pm$ 0.2	$\pm$ ---																		
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