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**Part Number:** [0878311010](#)  
**Status:** **Active**  
**Overview:** [Milli-Grid Connector System](#)  
**Description:** 2.00mm Pitch, Milli-Grid PCB Header, Dual Row, Vertical, Through Hole, Shrouded, 10 Circuits, 0.38µm Gold (Au) Plating, with Center Polarization Slot, without Locking Window, without PCB Locator, Tube

**Documents:**

<a href="#">3D Model</a>	<a href="#">Application Specification 503940001-AS-000 (PDF)</a>
<a href="#">Drawing (PDF)</a>	<a href="#">Packaging Specification PK-87831-001-001 (PDF)</a>
<a href="#">3D Model (PDF)</a>	<a href="#">RoHS Certificate of Compliance (PDF)</a>
<a href="#">Product Specification PS-87831-027-001 (PDF)</a>	

**Agency Certification**

CSA	LR19980
UL	E29179

**General**

Product Family	PCB Headers
Series	<a href="#">87831</a>
Application	Signal, Wire-to-Board
Comments	Contact Molex for application in automotive industry
Overview	<a href="#">Milli-Grid Connector System</a>
Product Name	Milli-Grid
UPC	884982222106

**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 Capable	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
Net Weight	0.542/g
Number of Rows	2
Orientation	Vertical
PC Tail Length	3.50mm
PCB Locator	No
PCB Retention	None
PCB Thickness - Recommended	1.60mm
Packaging Type	Tube
Pitch - Mating Interface	2.00mm
Pitch - Termination Interface	2.00mm
Plating min - Mating	0.381µm
Plating min - Termination	1.905µm
Polarized to PCB	No
Shrouded	Yes
Stackable	No



Series image - Reference only

**EU ELV**

**Not Relevant**

**EU RoHS**

**Compliant**

**REACH SVHC**

Contained Per -  
D(2020)4578-DC (25  
June 2020)  
1,2-  
Benzenedicarboxylic  
acid, dihexyl ester,  
bra  
Terphenyl,  
hydrogenated  
2-(2H-benzotriazol-2-  
yl)-4-(tert-butyl)-6-  
(sec-b  
2-(2H-benzotriazol-2-  
yl)-4,6-  
ditertpentylphenol  
2-ethylhexyl 10-  
ethyl-4,4-dioctyl-7-  
oxo-8-oxa-3,  
sodium  
peroxometaborate  
2,4-di-tert-butyl-6-(5-  
chlorobenzotriazol-2-  
yl)p  
2-benzotriazol-2-  
yl-4,6-di-tert-  
butylphenol  
Ammonium-  
pentadecafluorooctanoate  
disodium 4-  
amino-3-[[4'-[(2,4-  
diaminophenyl)azo]  
1,3-propanesultone  
1-vinylimidazole  
1,2-diethoxyethane  
disodium 3,3'-[[1,1'-  
biphenyl]-4,4'-  
diylbis(azo)  
dodecamethylcyclohexasiloxane

**China RoHS**

Surface Mount Compatible (SMC) Yes  
Temperature Range - Operating -55° to +105°C  
Termination Interface: Style Through Hole

#### Electrical

Current - Maximum per Contact 2.0A  
Voltage - Maximum 125V

#### Solder Process Data

Duration at Max. Process Temperature (seconds) 011  
Lead-free Process Capability WAVE  
Max. Cycles at Max. Process Temperature 001  
Process Temperature max. C 265

#### Material Info

#### Reference - Drawing Numbers

Application Specification 503940001-AS-000  
Packaging Specification PK-87831-001-001  
Product Specification PS-87831-027-001  
Sales Drawing SD-87831-0001-001

Octanoic acid,  
2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-  
pen  
Dipentyl phthalate  
furan  
4-o-tolylazo-o-  
toluidine  
ethylene thiourea  
4-methyl-m-  
phenylenediamine  
o-toluidine  
butyl 4-  
hydroxybenzoate  
phenanthrene  
dicyclohexyl phthalate  
p-(1,1-  
dimethylpropyl)phenol  
N-methylacetamide  
dimethyl sulphate  
pentacosafuorotridecanoic  
acid  
Perfluorohexane-1-  
sulphonic acid and its  
salts  
5-sec-butyl-2-(2,4-  
dimethylcyclohex-3-  
en-1-yl)-5  
1,2-  
benzenedicarboxylic  
acid, di-C6-10-alkyl  
est  
reaction mass of  
2-ethylhexyl 10-  
ethyl-4,4-dioct  
Cadmium sulphate  
Bisphenol-A  
Methylhexahydrophthalic  
anhydride  
Perfluorononan-1-  
oic acid  
(2,2,3,3,4,4,5,5,6,6,7  
Reaction  
products of 1,3,4-  
thiadiazolidine-2,5-d  
Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]o  
Pyrene  
Perfluorobutane  
sulfonic acid (PFBS)  
and its sal  
Tris(4-nonylphenyl,  
branched and linear)  
phosphi  
Nonadecafluorodecanoic  
acid (PFDA) and its  
sodiu  
4-Nonylphenol,  
branched and linear,  
ethoxylated  
Trixylyl phosphate  
4-Nonylphenol,  
branched and linear  
[substances w  
Zirconia  
Aluminosilicate

Refractory Ceramic  
Fibr  
Aluminosilicate  
Refractory Ceramic  
Fibres  
Sodium dichromate  
4,4'-Oxydianiline and  
its salts  
Boric acid  
Disodium tetraborate  
n-pentyl-  
isopentylphthalate  
3-ethyl-2-methyl-2-  
(3-methylbutyl)-1,3-  
oxazolidi  
2-benzyl-2-  
dimethylamino-4-  
morpholinobutyropheno  
2-methyl-1-(4-  
methylthiophenyl)-2-  
morpholinoprop  
1,2-  
Benzenedicarboxylic  
acid, dipentyl ester, br  
benzo[a]pyrene  
1,2-  
Benzenedicarboxylic  
acid, di-C6-8-  
branched a  
1,2,3-trichloropropane  
N-methyl-2-  
pyrrolidone  
1,2-  
Benzenedicarboxylic  
acid, di-C7-11-  
branched  
2-ethoxyethyl acetate  
Cobalt sulphate  
Cobalt-dinitrate  
Carbonic acid,  
cobalt(2+) salt (1:1)  
2-methoxyethanol  
2-ethoxyethanol  
trichloroethylene  
Boric acid, disodium  
salt, hydrate  
potassium dichromate  
potassium chromate  
Pitch, coal tar, high-  
temp.  
Lead chromate  
molybdate sulfate red  
lead chromate  
Anthracene oil,  
anthracene-low;  
Anthracene Oil F  
lead hydrogen  
arsenate  
bis(tributyltin) oxide  
alkanes, C10-13,  
chloro  
bis(2-ethylhexyl)  
phthalate (DEHP)  
musk xylene  
diarsenic trioxide

diarsenic pentaoxide  
Cobalt-dichloride  
dibutyl phthalate  
(DBP)  
4,4'-  
diaminodiphenylmethane  
potassium  
hydroxyoctaoxodizincatedichromate(1-)  
Fatty acids, C16-18,  
lead salts  
[phthalato(2-)]dioxotrilead  
Silicic acid (H<sub>2</sub>Si<sub>2</sub>O<sub>5</sub>),  
barium salt (1:1),  
lead-  
Sulfurous acid, lead  
salt, dibasic  
Borate(1-),  
tetrafluoro-, lead (2+)  
dioxobis(stearato)trilead  
tetralead trioxide  
sulphate  
Lead-titanium-trioxide  
lead oxide sulfate  
Silicic acid, lead salt  
lead dinitrate  
cadmium  
lead  
[4-[[4-anilino-1-  
naphthyl]]4-  
(dimethylamino)phen  
1,3,5-  
tris(oxiranylmethyl)-1,3,5-  
triazine-2,4,6(  
Lead oxide  
trilead bis(carbonate)  
dihydroxide  
orange lead  
cadmium oxide (non-  
pyrophoric)  
Diboron-trioxide  
cadmium carbonate  
N,N,N',N'-  
tetramethyl-4,4'-  
methylenedianiline  
2,2'-dichloro-4,4'-  
methylenedianiline  
dichromium  
tris(chromate)  
1,2-  
Benzenedicarboxylic  
acid, bis(2-  
methoxyethyl  
pentazinc chromate  
octahydroxide  
trilead diarsenate  
arsenic acid

**Halogen-Free  
Status**

**Not Low-Halogen**

For more information, please visit [Contact US](#)

China ROHS	Green Image
ELV	Not Relevant
RoHS Phthalates	Not Contained

**Search Parts in this Series**

87831 Series

**Mates With**

Milli-Grid Vertical Through Hole Receptacle 79107 , 78787 , Milli-Grid Flex-to-Board Vertical Receptacle 79108 , Milli-Grid Vertical Surface Mount Receptacle 79109 , 78788 , Milli-Grid Crimp Housing 51110 , Milli-Grid Cable-to-Board Receptacle 87568

This document was generated on 01/06/2021

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