

# Molex 461148400 PDF

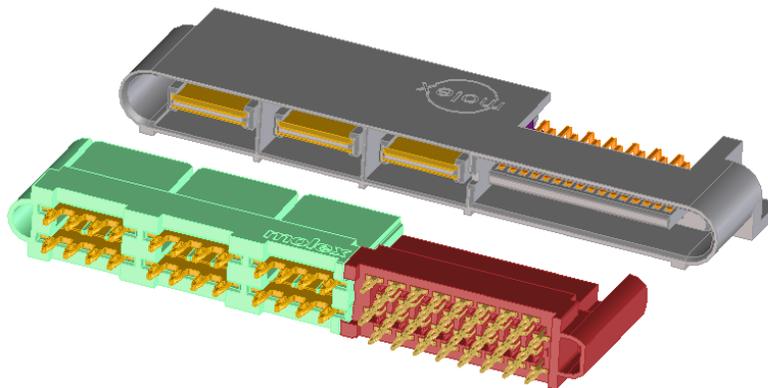
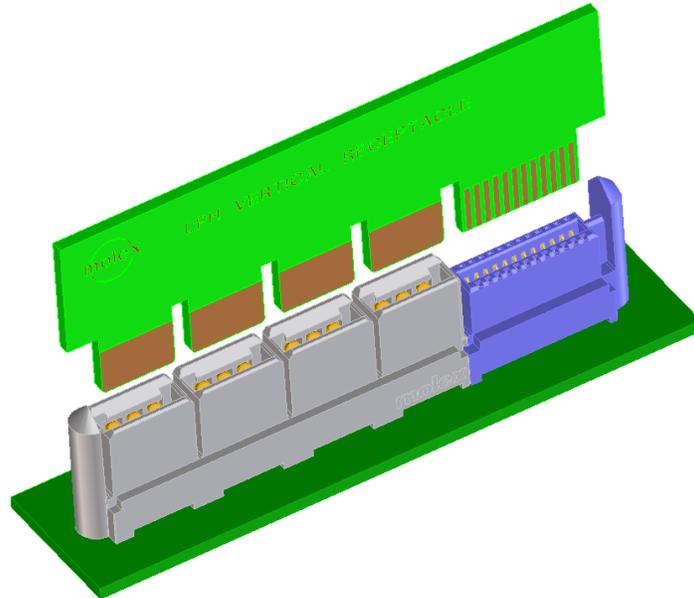
深圳创唯电子有限公司

<http://www.molex-connect.com>



# PRODUCT SPECIFICATION

## PRODUCT SPECIFICATION FOR LOW PROFILE HYBRID (LPH)<sup>®</sup>™ VERTICAL RECEPTACLE



REVISION: <b>D7</b>	ECR/ECN INFORMATION: EC No: <b>UCP2016-4354</b> DATE: <b>2016/05/09</b>	TITLE: <b>PRODUCT SPECIFICATION FOR LOW PROFILE HYBRID (LPH) RECEPTACLE</b>	SHEET No. <b>1 of 20</b>
DOCUMENT NUMBER: <b>PS-46114-001</b>	CREATED / REVISED BY: <b>M. BANDURA</b>	CHECKED BY: <b>M.BANDURA</b>	APPROVED BY: <b>B. PISZCZOR</b>



# PRODUCT SPECIFICATION

## 1.0 SCOPE

This specification covers the performance requirements and test methods for the following products listed by series numbers:

- 46114-\*\*\*\* LPH Vertical Receptacle Assembly (Power and Signal)
- 46113-\*\*\*\* LPH Vertical Receptacle Assembly (Signal only)
- 46112-\*\*\*\* LPH Vertical Receptacle Assembly (Power only)

The Low Profile Header (LPH VERT.) system consists of the Power & Signal receptacle header. The Power Receptacle can be configured with 2 to 14 power contacts. The Signal Receptacle can be configured with 12 to 40 signal contacts. Additional options include no-guides versions and Power and Signal only. Receptacles can also mate to 1.57mm / .062" +/- 0.15mm / .006" thick edge card. Receptacle connectors are press fit, with eye-of-the-needle compliant pin terminals.

## 2.0 PRODUCT DESCRIPTION

### 2.1 PRODUCT NAMES

- LPH Vertical Receptacle Assembly Series 46114
- LPH Vertical Power Receptacle Series 46112
- LPH Vertical Signal Receptacle Series 46113

### 2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

- Dimensions: See individual sales drawings.
- Material: RoHs compliant materials (LCP for housings, copper alloy terminals).
- Plating: Gold on mating surfaces and tin or tin-lead on PC tails with nickel under-plating overall.

### 2.3 SAFETY AGENCY APPROVALS

- UL File Number: E29179
- CSA File Number: LR19980

## 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

Refer to the appropriate sales drawings and other sections of this specification for the necessary referenced documents and specifications.

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3.1 See sales drawings and the other sections of this specifications for the necessary referenced documents and specification.

3.2 Assembly Drawings: SD-46114-\*\*\*, SD-46112-200, 46113-200

## 4.0 RATINGS

### 4.1 VOLTAGE

250 Volts AC (RMS)/DC (Power)

30 Volts DC (Signal)

#### Connector Rating per UL-1977

Connector voltage rating meets the connector approval level defined by UL 1977, Sect. 11 for spacing per table 11.1. Example: 1.2 mm for ≥ 250 volt; 3.2 mm for ≤ 250 volt.

Exception taken for spacing less than those specified are permitted, if the device complies with the requirements in the dielectric voltage withstanding test per Sect. 17.

#### Application Voltage Guideline

For application voltage requirements please refer to UL-60950 or other applicable standards, the creepage & clearance also needs to be determined based upon pads/traces on the PCB.

### 4.2 CURRENT \*\*

When tested in accordance with EIA-364-TP70:

(Tested to 30deg.C max. rise above ambient)

Ckt. Size	2	4	6	8	10	12	14
Current per Ckt.	T.B.D.	30 Amperes	27 Amperes	23 Amperes	20 Amperes	T.B.D.	T.B.D.

Signal Contact: 1 Ampere per contact

\*\* Current rating is application dependent. Above rating is for reference only. Appropriate de-rating is required per ambient conditions, copper weight of PCB needed to achieve thermal balance, gross heating from adjacent components, and other factors that influence connector performance.

#### 4.2.1 CURRENT INTERRUPTION

30 Amps @ 60 Vdc – Power

1.0 Amp @ 30 Vdc - Signal

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# PRODUCT SPECIFICATION

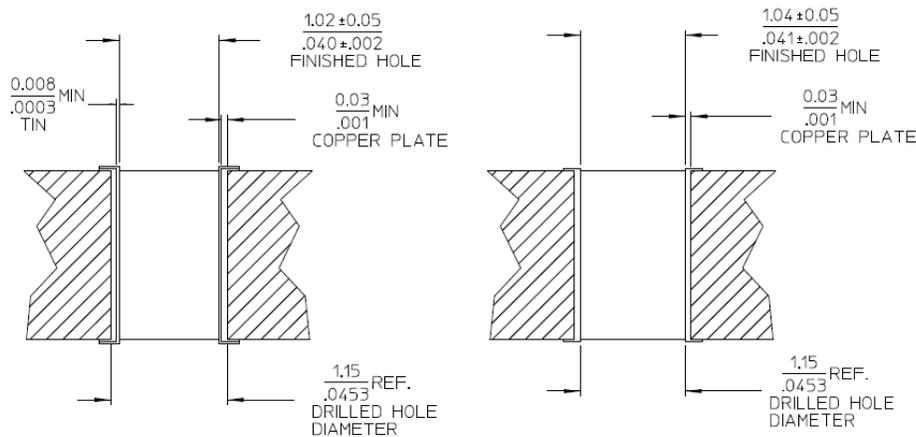
## 5.0 COMPLIANT PIN PERFORMANCE

### 5.1 Terminal Insertion and Withdrawal Forces

COMPONENT	TEST CONDITION	REQUIREMENT			
		INSERT.		WITHDR.	
Power Terminal (Single Compliant pin)	Insert and extract compliant pin section into the PTH at a rate of 25.4+/-6 mm per minute.	Avg.	14.9 Lb 66.3 N	Avg.	11.4 Lb 50.7 N
		Max.	18.7 Lb 83.2 N	Min.	7.4 Lb 32.9 N
Signal Terminal (Single Compliant pin)	Insert and extract compliant pin section into the PTH at a rate of 25.4+/-6 mm per minute.	Avg.	4.3 Lb 19.1 N	Avg.	3.2 Lb 14.2 N
		Max.	5.4 Lb 24.0 N	Min.	1.5 Lb 6.7 N

## 5.2 RECOMMENDED PLATED THROUGH HOLE DIMENSIONS FOR POWER MODULE

### TIN PLATED OR OSP HOLE DIMENSIONS



SN/Cu PLATED HOLES

OSP COATED HOLES

SEE NOTES ON SHEET 6

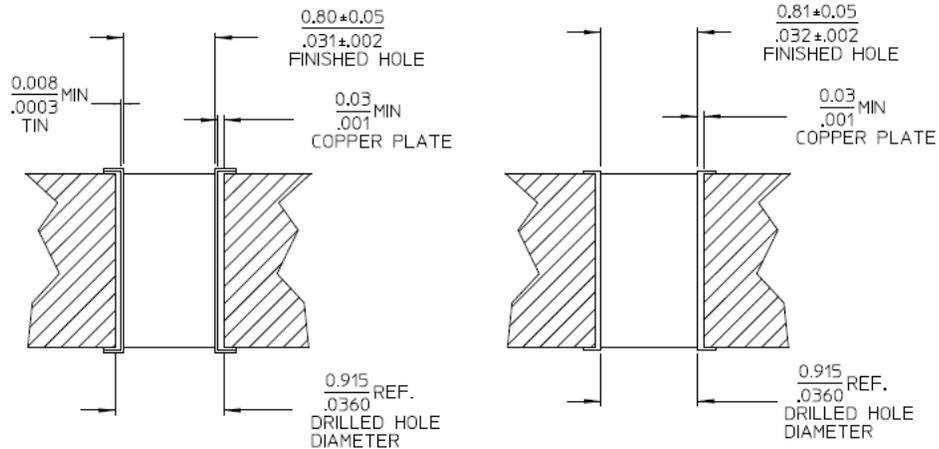
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# PRODUCT SPECIFICATION

## 5.3 RECOMMENDED PLATED THROUGH HOLE DIMENSIONS FOR SIGNAL MODULE.

### TIN PLATED OR OSP HOLE DIMENSIONS



SN/Cu PLATED HOLES

OSP COATED HOLES

### Notes:

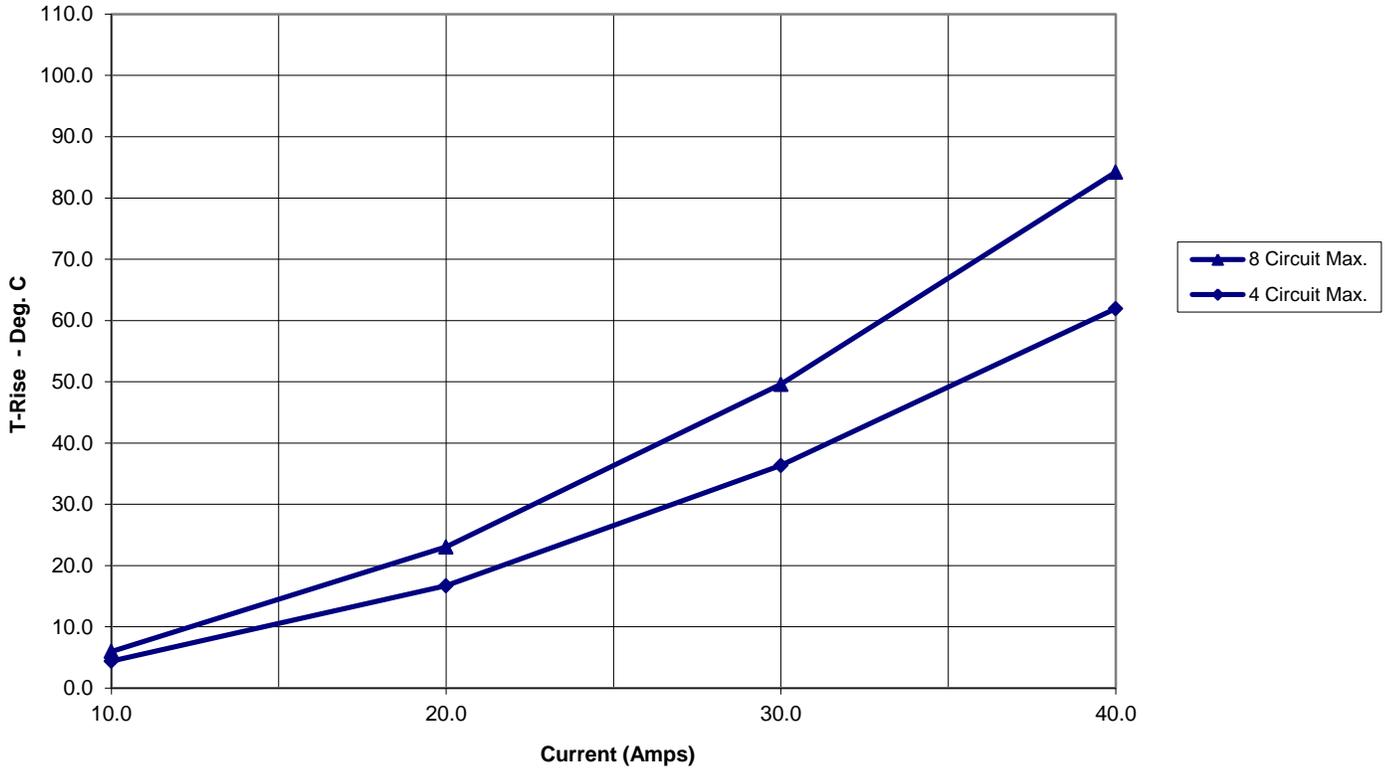
1. The finished hole size is the critical feature for proper performance of the compliant pin terminal. The reference drill sizes listed are recommended by Molex to achieve the finished PCB hole size.
2. Depending on the specific manufacturer's plating process a different drill size can be used to achieve the required finished PCB hole size.

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# PRODUCT SPECIFICATION

**Low Profile Hybrid**  
**Temperature Rise vs. Current**  
 8 Circuit & 4 Circuit Max.  
 4 oz. Copper PCB

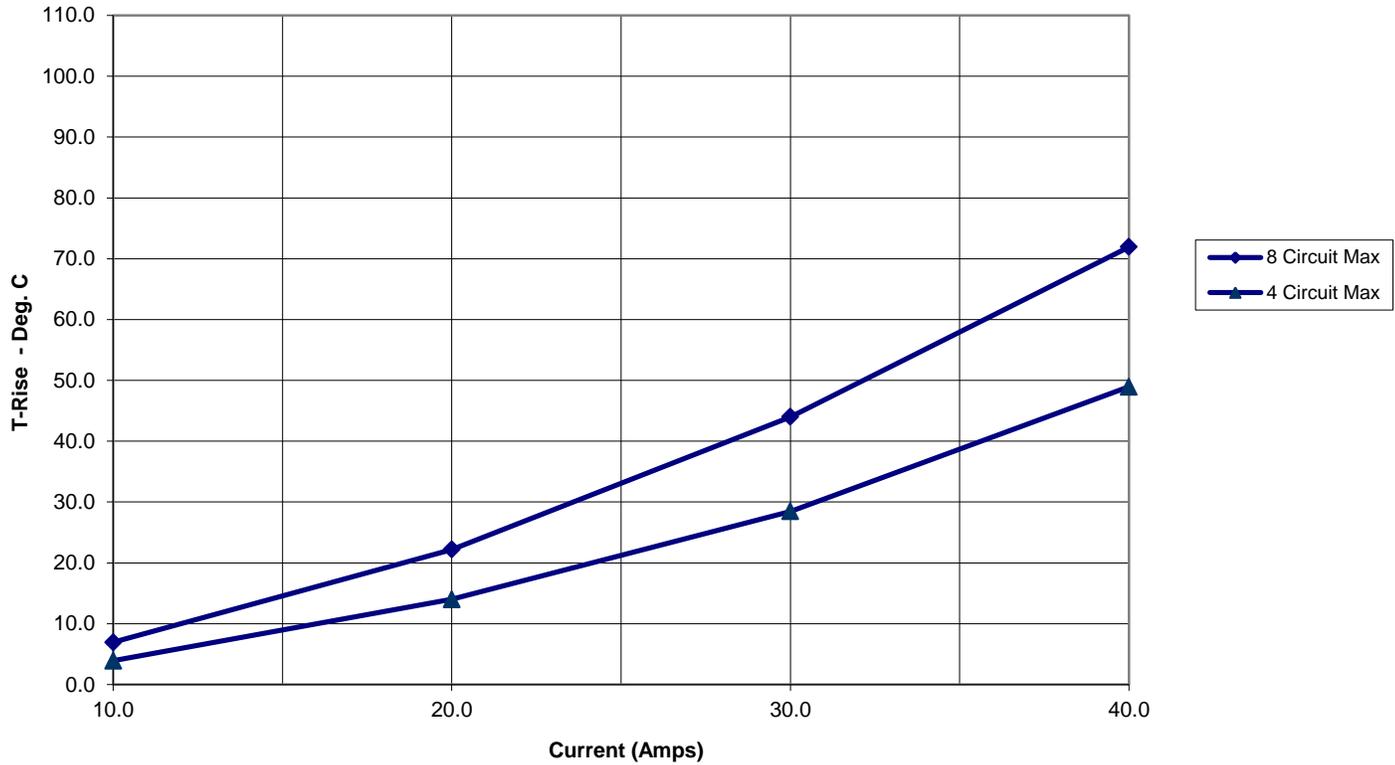


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# PRODUCT SPECIFICATION

**Low Profile Hybrid**  
**Temperature Rise vs. Current**  
 8 Circuit & 4 Circuit Max.  
 10 oz. Copper PCB



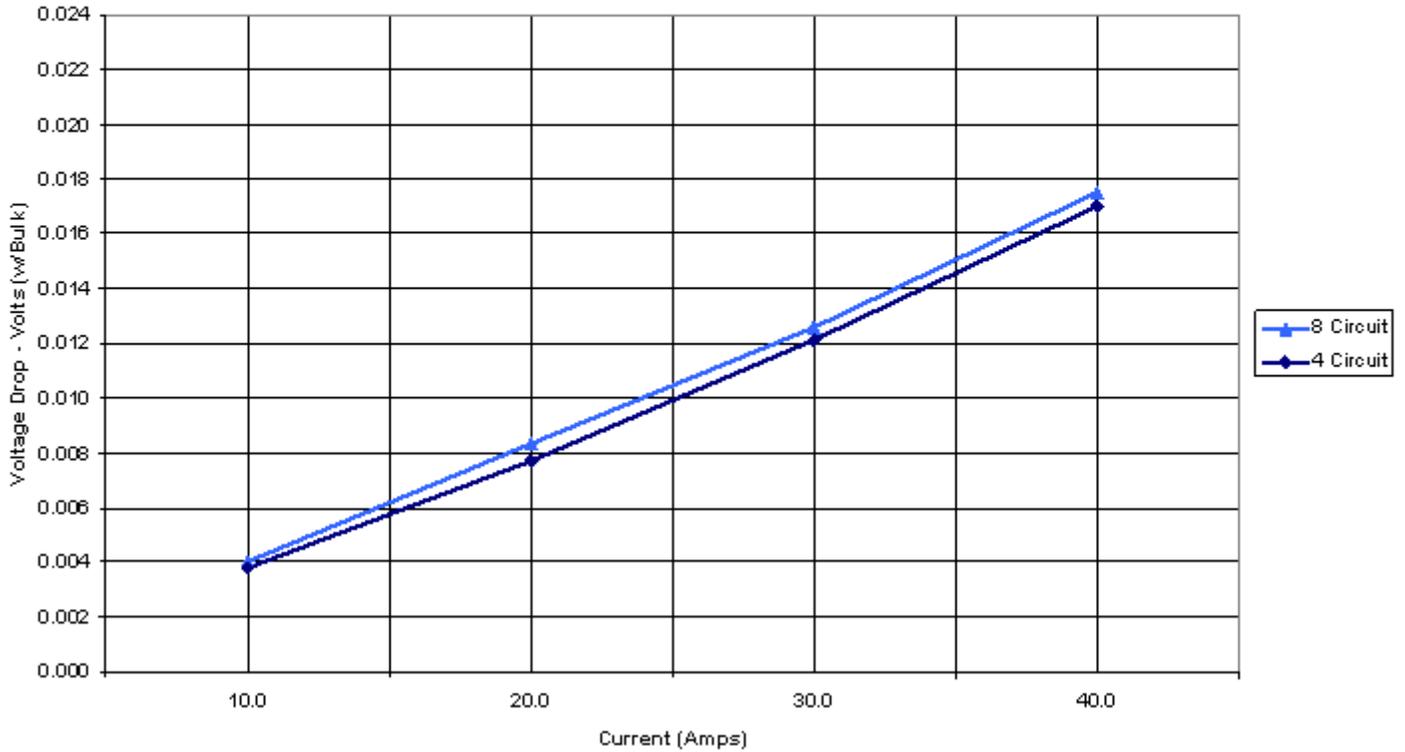
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# PRODUCT SPECIFICATION

## Low Profile Hybrid

Voltage Drop Vs. Current  
8 Circuit & 4 circuit  
4 oz. Copper PCB

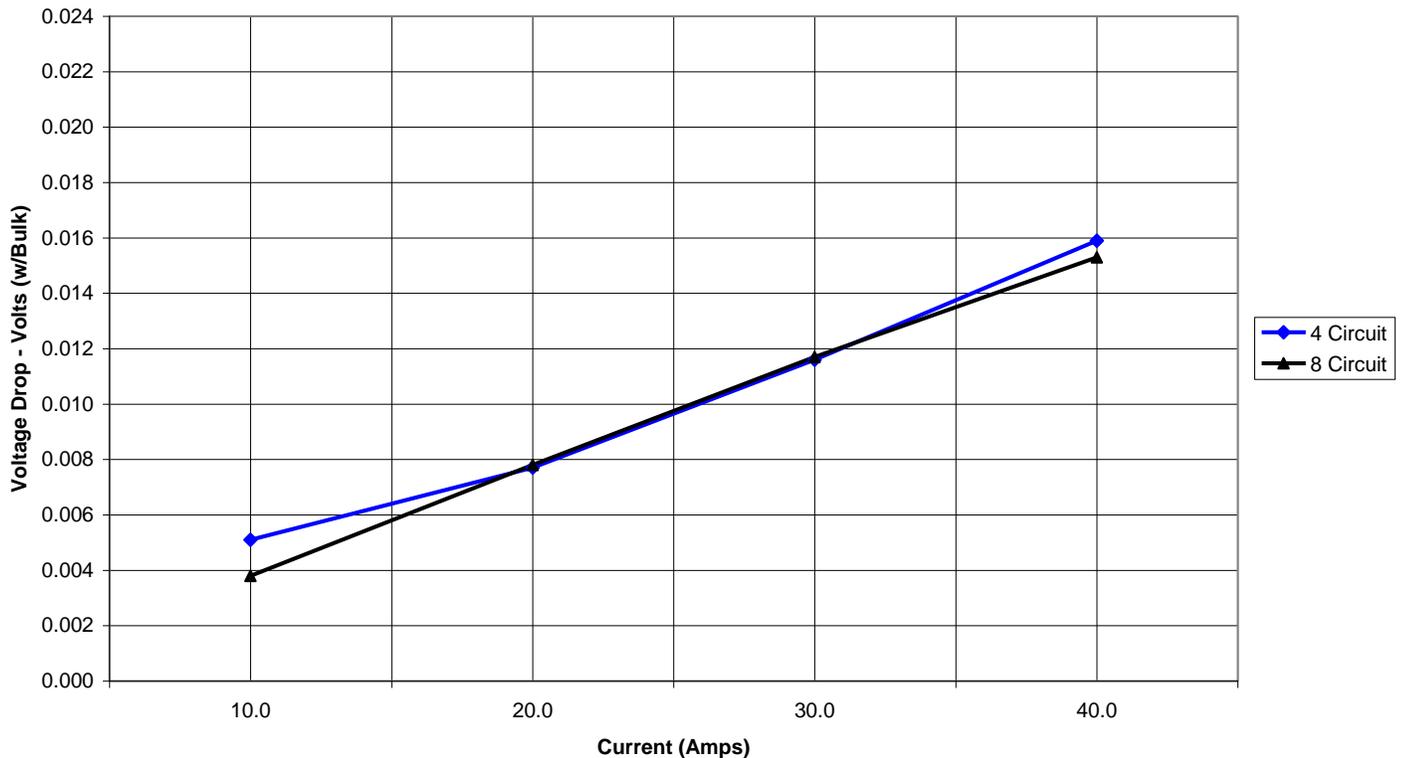


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# PRODUCT SPECIFICATION

**Low Profile Hybrid**  
**Voltage Drop Vs. Current**  
 8 Circuit & 4 Circuit  
 10 oz. Copper PCB



## 5.4 TEMPERATURE

Operating: -40°C to +105°C (including T-rise from applied current)  
 Non-operating: -40°C to +105°C

## 5.6 DURABILITY

250 Cycles

## 6.0 QUALIFICATION

Laboratory conditions and sample selection are in accordance with EIA-364-1000

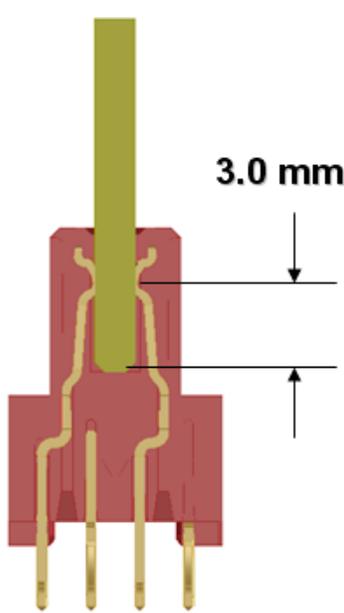
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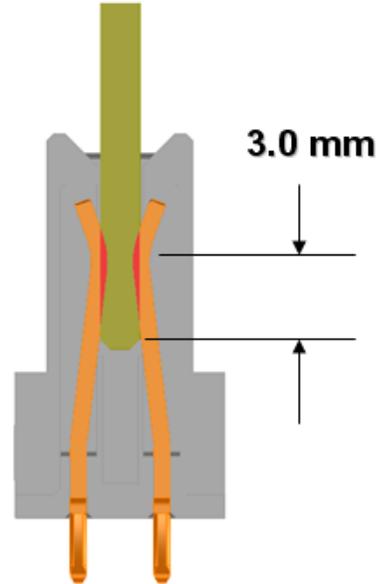
# PRODUCT SPECIFICATION

## 7.0 MATING AND ALIGNMENT:

### 7.1 VERTICAL LPH TO CARD EDGE

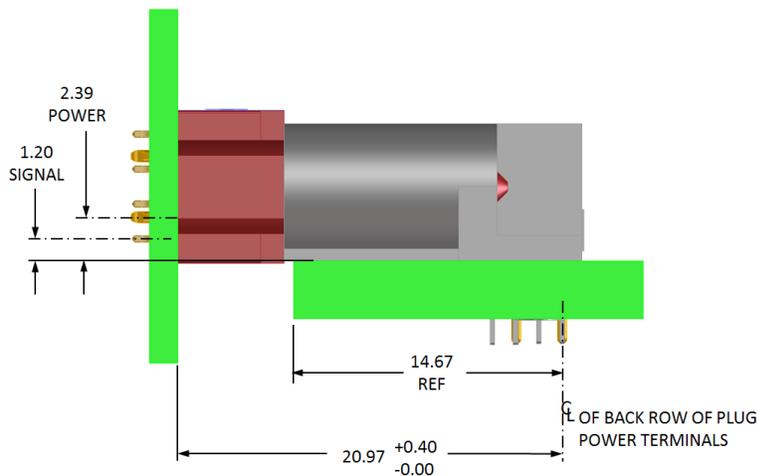


**SIGNAL WIPE  
WITH CARD EDGE**



**POWER WIPE  
WITH CARD EDGE**

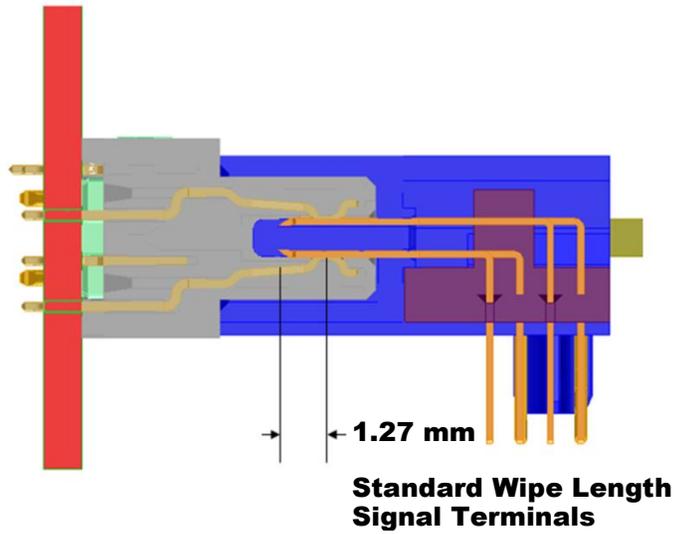
### 7.2 MATED VERTICAL LPH AND RIGHT ANGLE LPH



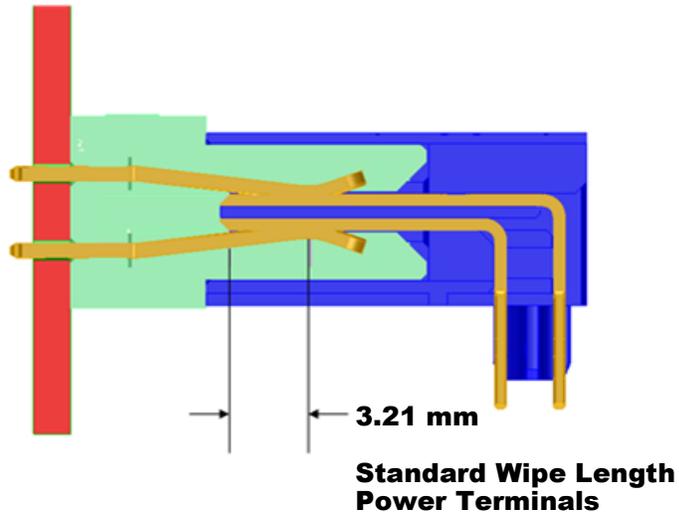
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# PRODUCT SPECIFICATION



## MATED VERTICAL LPH AND RIGHT ANGLE LPH



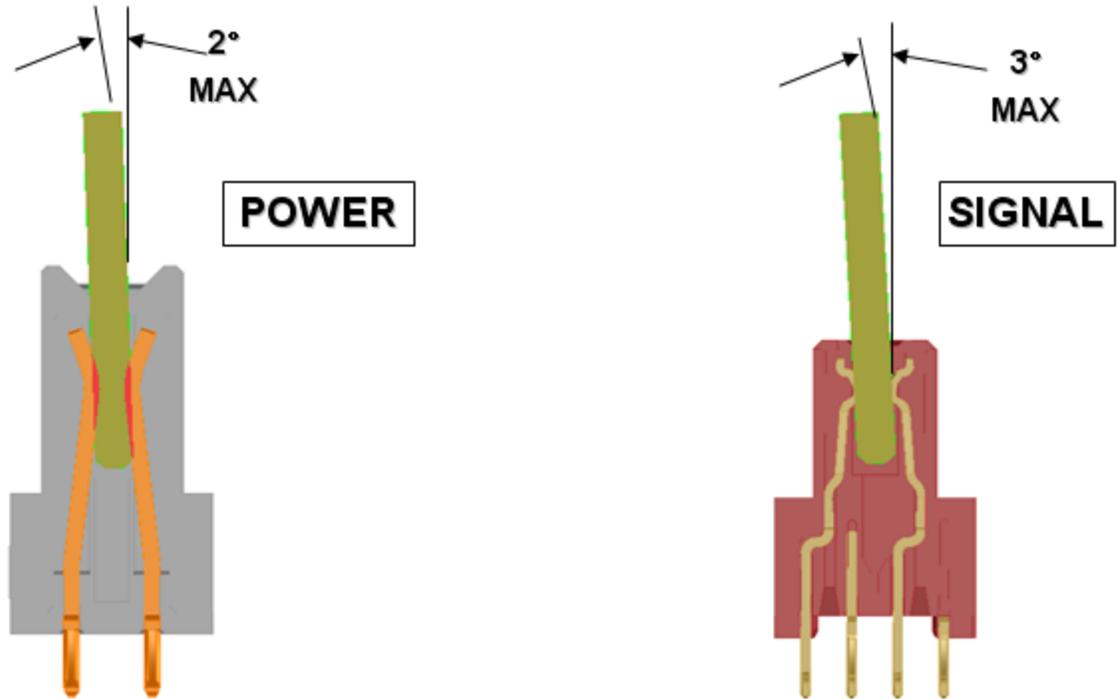
## MATED VERTICAL LPH AND RIGHT ANGLE LPH

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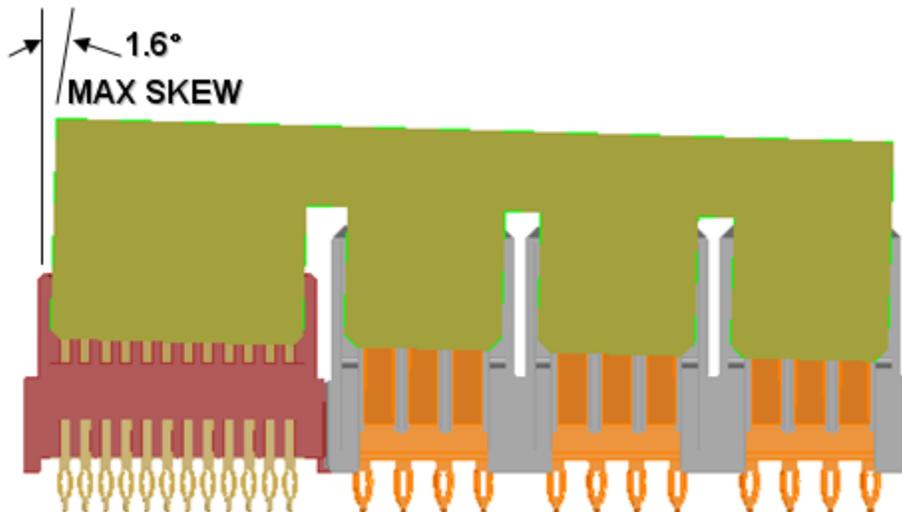


# PRODUCT SPECIFICATION

## 7.3 Tilt - Full Insertion



## 7.4 Max Skew Allowable at Full Insertion

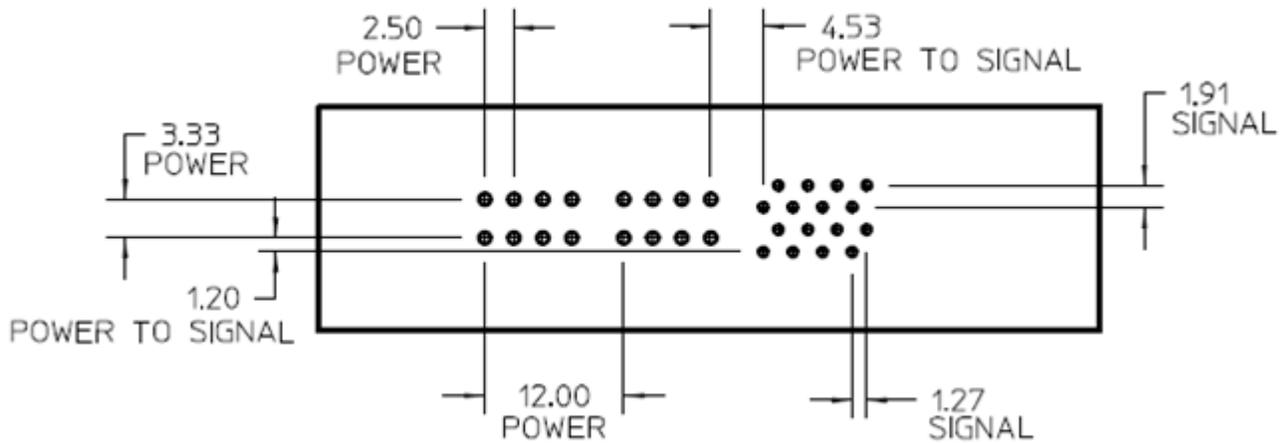


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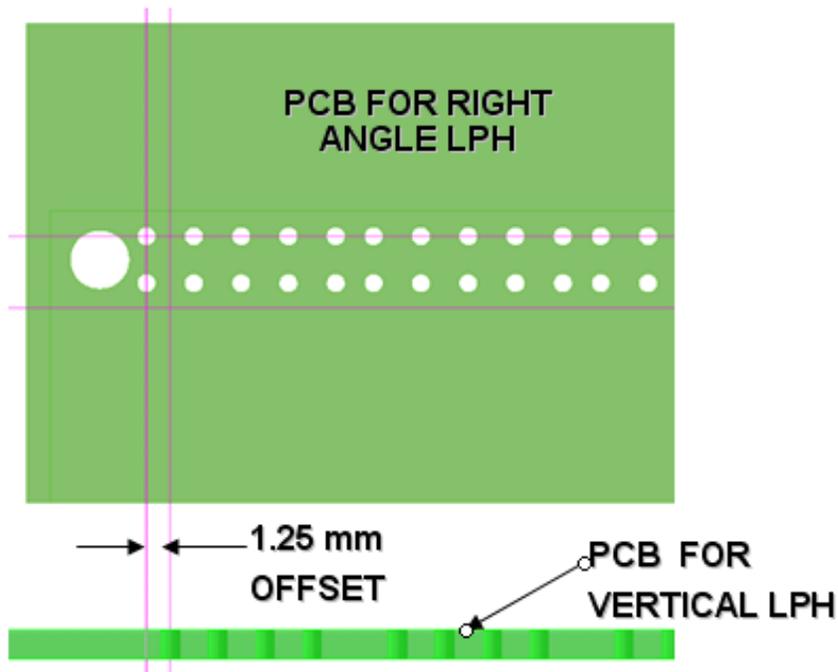


# PRODUCT SPECIFICATION

## 8.0 PCB SPACE REQUIREMENTS:



## POWER MODULE

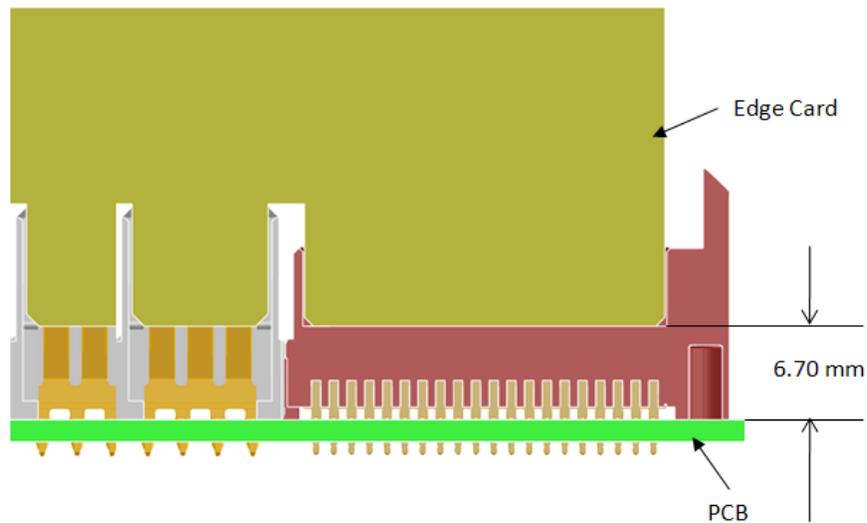
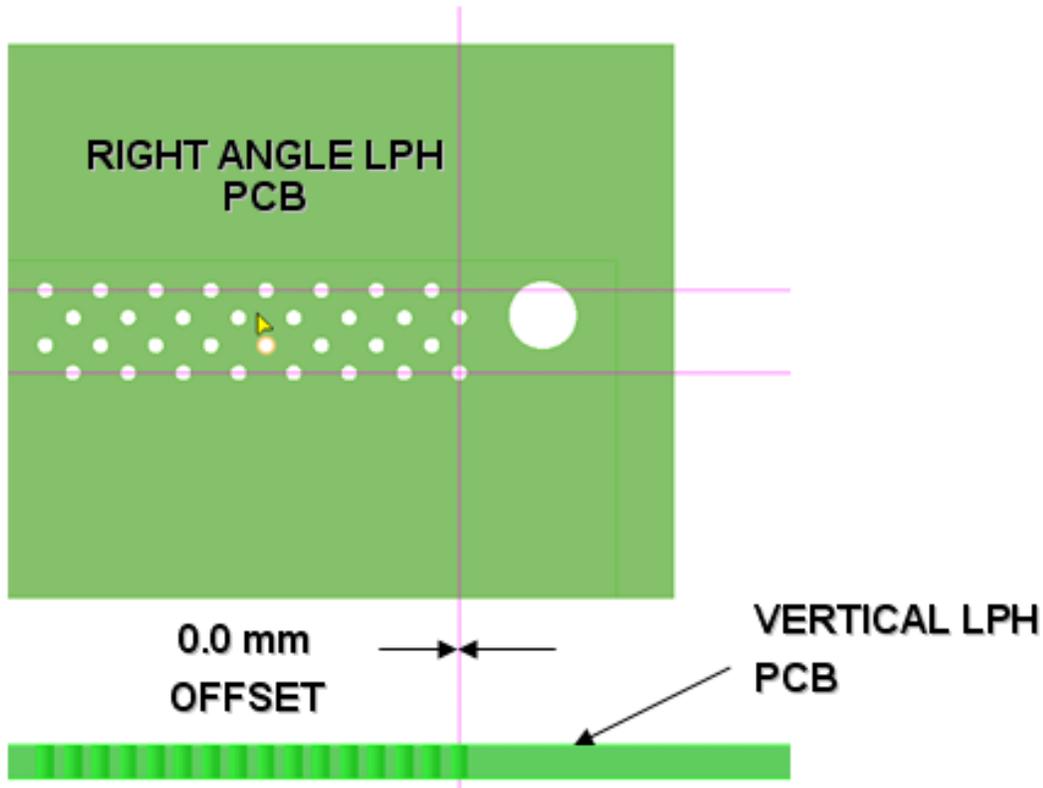


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# PRODUCT SPECIFICATION

## SIGNAL MODULE



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# PRODUCT SPECIFICATION

## 9.0 PERFORMANCE

### 9.1 ELECTRICAL PERFORMANCE

DESCRIPTION	TEST CONDITION	REQUIREMENT
CONTACT RESISTANCE (LOW LEVEL) (EIA-364-23)	Mate connectors, apply maximum voltage of 20mV and a current of 100 mA	Maximum Change: Signal Contact: 15 milliohm Power Contact: 0.75 milliohm
CONTACT RESISTANCE (@ RATED CURRENT)	Mate connectors, apply maximum voltage of 20mV at the rated current.	Maximum Change: Signal Contact: 15 milliohm Power Contact: 0.75 milliohm
INSULATION RESISTANCE (EIA-364-21)	Apply 500 VDC between adjacent terminals or ground.	5,000 megaohms minimum
DIELECTRIC WITHSTANDING VOLTAGE (EIA-364-20)	Apply 1500 VDC for 1 minute between adjacent terminals or ground.	No breakdown
TEMPERATURE RISE	Mate connectors Measure T-Rise @ Rated Current After 96 Hours.	30 C T-Rise

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# PRODUCT SPECIFICATION

## 9.2 MECHANICAL PERFORMANCE

ITEM	TEST CONDITION	REQUIREMENT
MATING FORCE, SINGLE CIRCUIT (EIA-364-37)	Mate connectors at a rate of 25 +/- 6 mm per minute.	110 g per signal pin 700 g per Power Contact (Maximum Values)
UNMATING FORCE, SINGLE CIRCUIT (EIA-364-37)	Unmate connectors at a rate of 25 +/- 6 mm per minute.	15 g per signal pin 150 g per Power Contact (Minimum Values)
DURABILITY W/O ENVIRONMENT (EIA-364-09)	Mate connectors 250 cycles at a maximum rate of 10 cycles per minute.	Maximum Change: Signal Contact: 15 milliohm Power Contact: 0.75 milliohm

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# PRODUCT SPECIFICATION

## 9.3 ENVIRONMENTAL PERFORMANCE

ITEM	TEST CONDITION	REQUIREMENT
VIBRATION (EIA-364-28)	Mate connectors and vibrate per EIA-364-28, test condition D, 15 minutes each axis	Maximum Change: Signal Contact: 15 milliohm Power Contact: 0.75 milliohm
THERMAL SHOCK (EIA-364-32)	Mate connectors, expose to 5 cycles from -55 deg. C to 85 deg. C per EIA-364-TP-32	Maximum Change: Signal Contact: 15 milliohm Power Contact: 0.75 milliohm
TEMPERATURE LIFE (EIA-364-17)	Mate Connectors, expose to 180 hours at 105 °C Per EIA-364-17 Method A	Maximum Change: Signal Contact: 15 milliohm Power contact: 0.75 milliohm
CYCLIC TEMPERATURE & HUMIDITY (EIA-364-31)	Mate connectors: expose to 24 cycles from 25 °C / 80% RH to 65 °C / 50% RH	Maximum Change: Signal Contact: 15 milliohm Power Contact: 0.75 milliohm
MIXED FLOWING GAS	168 hours unmated, 72 hours mated, per EIA-364-65 Class IIA	Maximum Change: Signal Contact: 15 milliohm Power Contact: 0.75 milliohm
SOLDER RESISTANCE (Wave)	Submerge terminal tails in solder. Dwell: 2.0 +/- 0.5 sec. Solder Temp: 260° C Max.	Visual: No damage to insulator material

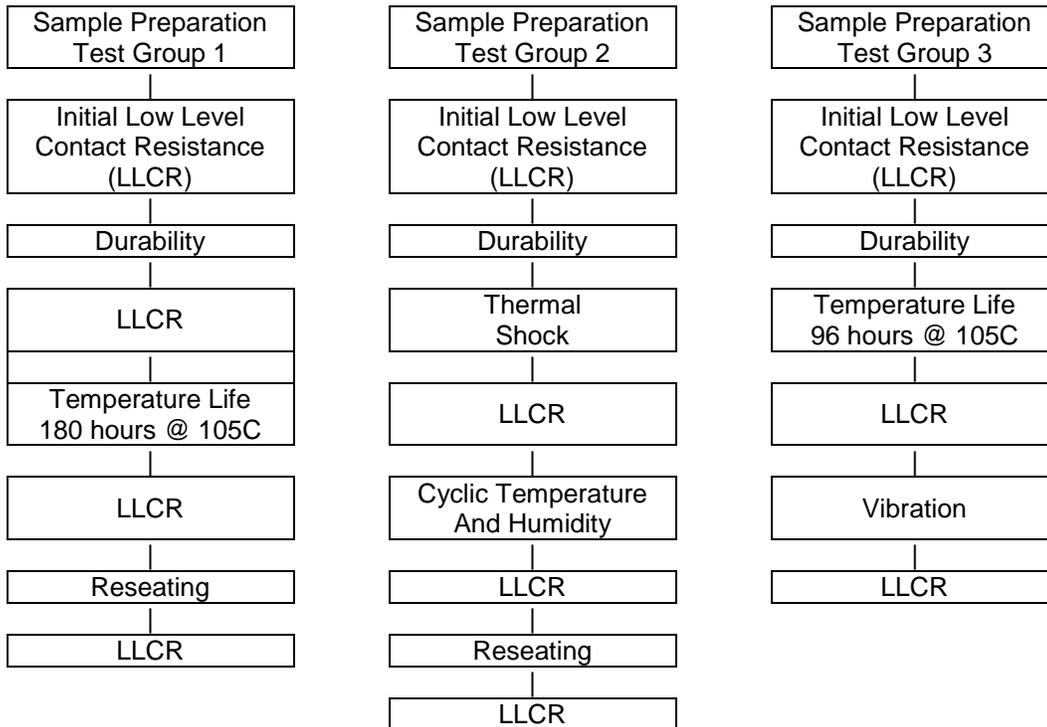
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# PRODUCT SPECIFICATION

## 10.0 TEST SEQUENCE

### 10.1 Reliability Test Sequences (per EIA-364-1000 Test Groups 1, 2, and 3):

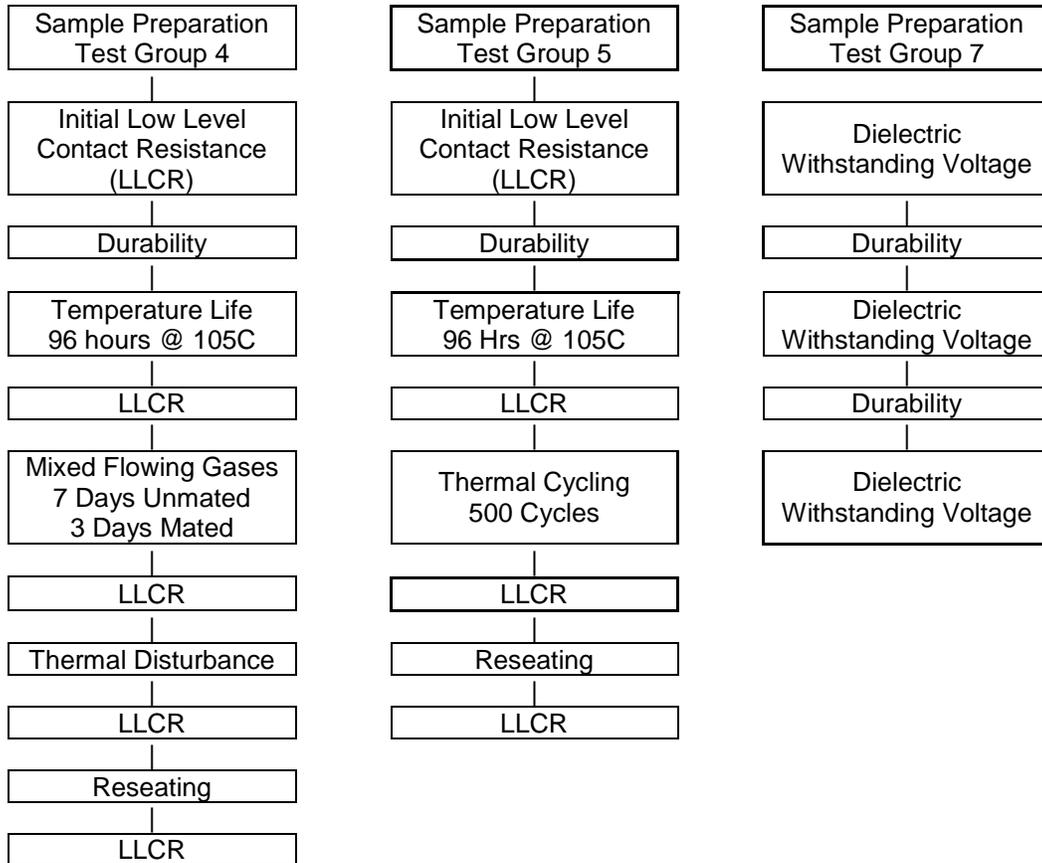


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## 10.2 Reliability Test Sequences (per EIA-364-1000 Test Groups 4, 5, and 7)

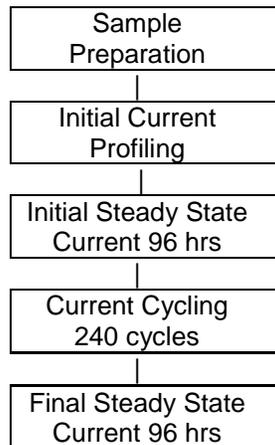


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# PRODUCT SPECIFICATION

## 10.3 Electrical Performance Test Sequence:



REVISION: <b>D7</b>	ECR/ECN INFORMATION: EC No: <b>UCP2016-4354</b> DATE: <b>2016/05/09</b>	TITLE: <b>PRODUCT SPECIFICATION FOR LOW PROFILE HYBRID (LPH) RECEPTACLE</b>	SHEET No. <b>20 of 20</b>
DOCUMENT NUMBER: <b>PS-46114-001</b>	CREATED / REVISED BY: <b>M. BANDURA</b>	CHECKED BY: <b>M.BANDURA</b>	APPROVED BY: <b>B. PISZCZOR</b>

## LPH VERTICAL RECEPTACLE INSTALLATION SPECIFICATION

### 1.0 SCOPE

This specification applies to the series 46114, 46113, 46112 LPH vertical receptacle products with press-fit tails.

### 2.0 PRODUCT DESCRIPTION

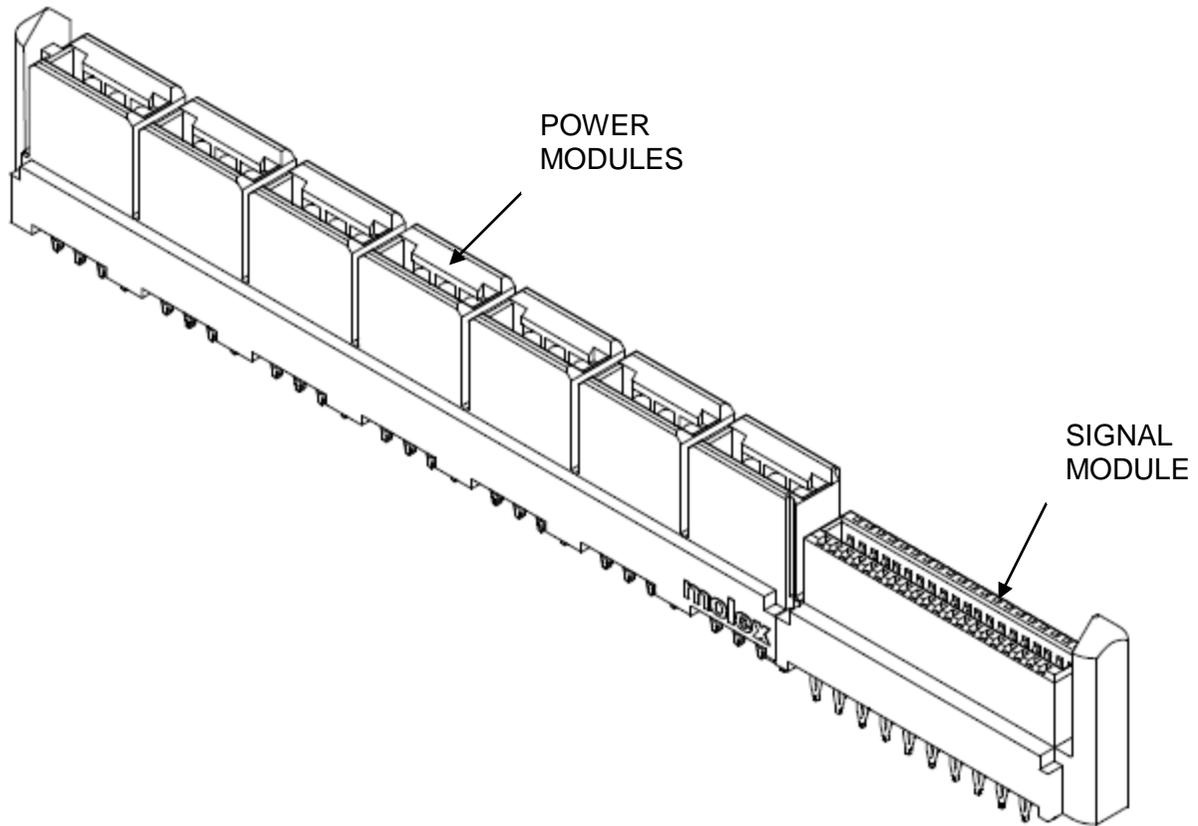
The LPH Vertical system consists of Power and Signal modular configurations. The vertical receptacle connectors are through-hole devices with eye-of-the-needle compliant pin terminals. The connector assembly is delivered with the Power and Signal modules pre-installed system that aligns during the press-fit operation.

### 3.0 REFERENCE DOCUMENTS

- 3.1 Refer to the appropriate sales or manufacturing drawing for information on dimensions, materials, plating, and markings
- 3.2 PS-46114-001 – LPH Vertical Product Specification.
- 3.3 ATS-62201-8672 Press-In Tool instruction for Connector assemblies with 12, 16, 32, or 36 circuit signal.
- 3.4 ATS-62201-8671 Press-In Tool instruction for Connector assemblies with 20, 24, 28, or 40 circuit signal.
- 3.5 ATS-62100-6300 Power Terminal Removal Tool Instruction Sheet

REVISION: <b>B</b>	ECR/ECN INFORMATION: EC No: <b>UCP2015-3021</b> DATE: <b>2015/01/27</b>	TITLE: <b>APPLICATION SPECIFICATION FOR LPH VERTICAL RECEPTACLE CONNECTORS</b>	SHEET No. <b>1 of 5</b>
DOCUMENT NUMBER: <b>AS-46114-001</b>	CREATED / REVISED BY: <b>J.QUILES</b>	CHECKED BY: <b>M.BANDURA</b>	APPROVED BY: <b>A.PATEL</b>

## 4.0 LPH VERTICAL RECEPTACLE NOMENCLATURE AND FEATURES



**Figure 4.1**

AS-DELIVERED RECEPTACLE ASSEMBLY

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DOCUMENT NUMBER: <b>AS-46114-001</b>	CREATED / REVISED BY: <b>J.QUILES</b>	CHECKED BY: <b>M.BANDURA</b>	APPROVED BY: <b>A.PATEL</b>

## 5.0 PRINTED CIRCUIT BOARD SUPPORT

The LPH Vertical connector requires up to 15 lbs. of force per pin to press the Power Connector and 5 lbs. of force per pin to press the Signal Connector into the printed circuit boards. Therefore, a backup or support fixture is required to prevent damage to the PCB. The support fixture should have clearance for the connector terminals when they protrude through the underside of the PCB. It is also recommended that the support fixture have locating pins. Due to the custom nature of each application, Molex does not supply support and locating fixtures, the customer normally supplies them.

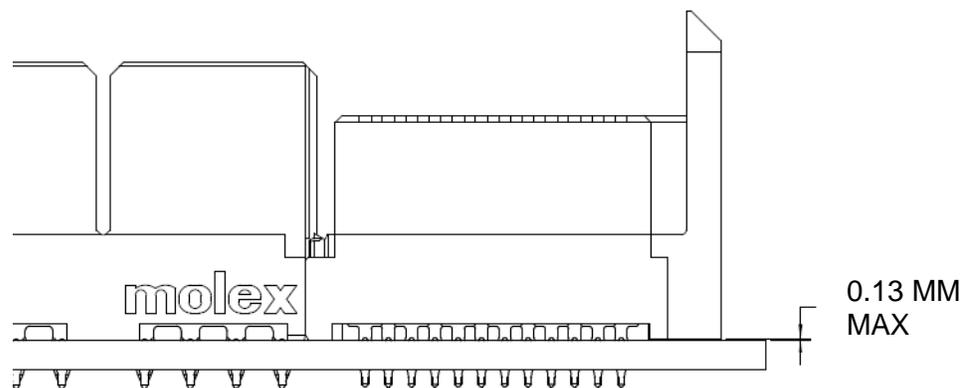
The following is one simple way of making a PCB support and locating fixture:

- 5.1 Locate a suitable piece of material for the backup. It should be approximately  $\frac{3}{4}$  inch thick and the same size or slightly larger than the PCB to be used. While aluminum can be used, a rigid nonconductive material such as a phenolic is preferred. (A stack of scrap PCBs of suitable size can be fastened together and used as a fixture).
- 5.2 Obtain a scrap PCB like the ones to be assembled. Attach this PCB to the material from step 5.1.
- 5.3 Using an oversize drill bit, drill through each hole where a pin from the connector will go. Drill deep enough into the lower material to be certain the pins do not bottom out when inserted (at least 5mm [0.20in] deep).
- 5.4 Locate two (2) holes on the PCB to use as locating points. Drill for and mount suitably sized dowel pins in the two locations on the support fixture.
- 5.5 Clear out the support for any components mounted on the underside of the PCB.

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## 6.0 INSTALLATION PROCEDURE

- 6.1 Be certain the correct application tooling and board support are clean of debris or any other material that could damage the connector or PCB.
- 6.2 Place the board support under the ram of the press.  
*Note:* Be certain the board support is square and sits level on the press; this is important due to the high forces generated during the press in process. Any flexing during the press in process could damage the board support, PCB, connector or the application tooling. The board support must provide clearance to all press-fit tails.
- 6.3 Program the press (if applicable) for the optimum force necessary to fully seat the connector on the PCB. Consult the LPH Vertical Product Spec for recommended insertion force.
- 6.4 Place the printed circuit board on the board support.  
*Note:* The PCB should be doweled to the board support so no shifting occurs during the press in process that will cause miss-alignment between the PTH and the clearance holes in the board support.
- 6.5 Before placing the connector on the PCB inspect for any bent pins that would interfere with proper alignment to the PCB. Refer to workmanship criteria for descriptions and examples of product defects.
- 6.6 Place the connector on the PCB.
- 6.7 Place the insertion tool on the connector.
- 6.8 Cycle the press to seat connector on the PCB.
- 6.9 Check that connector is fully seated on the PCB and that all compliant tails were pressed in without any bent pins. See Figure 6.1.



**Figure 6.1**  
CONNECTOR SEATING DIMENSION

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DOCUMENT NUMBER: <b>AS-46114-001</b>	CREATED / REVISED BY: <b>J.QUILES</b>	CHECKED BY: <b>M.BANDURA</b>	APPROVED BY: <b>A.PATEL</b>

## INSPECTION PROCEDURE (Post Installation)

After the receptacle is pressed on the PCB the final assembly should be inspected. The following is a recommended inspection procedure.

First, inspect the mating side of the receptacle

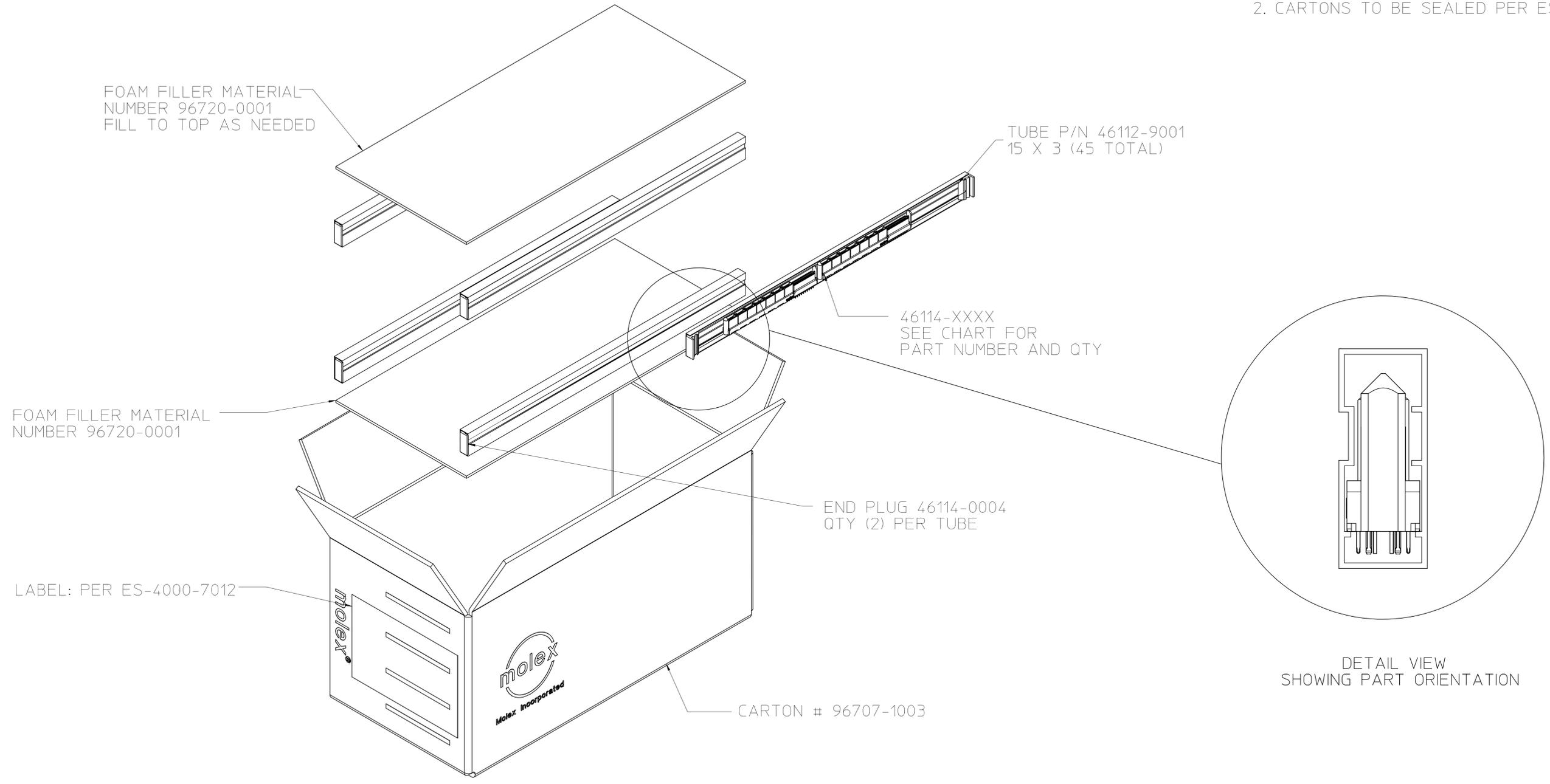
- \* The plastic shroud should be seated and flush to the PCB, a maximum allowable gap of 0.13mm is acceptable (see figure 6.1).
- \* If the seating height is not correct, receptacle may be re-pressed to obtain the correct seating height.
- \* Inspect the plastic housing, verify it is not cracked, deflected or damaged in any way. To avoid a mis-mate condition, the daughtercard lead-in zone must be free of debris and not damaged in any way.

Second, inspect the bottom side of the PCB

- \* Verify all pins were pressed into the PTH's, if a pin did not get pressed into a hole the most common cause for this condition is mis-loading of the connector.

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DOCUMENT NUMBER: <b>AS-46114-001</b>	CREATED / REVISED BY: <b>J.QUILES</b>	CHECKED BY: <b>M.BANDURA</b>	APPROVED BY: <b>A.PATEL</b>

NOTES:  
 1. SEE CHART FOR STANDARD PACK QUANTITY.  
 2. CARTONS TO BE SEALED PER ES-40000-7013.



ADD NEW P/N EC NO: S2017-0371 DRWNL IN06 CHKD: JZENG APPR: KHLIM	2016/12/21 2017/06/13 2017/06/13	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
		$\nabla=0$ $\sphericalangle=0$	mm	INCH	MM/IN		1:1	METRIC		
			4 PLACES ± --- ± ---	3 PLACES ± --- ± .010	DRAWN BY	DATE	TITLE			
			2 PLACES ± 0.25 ± ---	1 PLACE ± --- ± ---	KARADIMAS	2007/10/3	PACKAGING KIT LPH VERT. PRODUCT LINE			
		ANGULAR ± --- °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		MOLEX INCORPORATED			
					MATERIAL NO.		DOCUMENT NO.		SHEET NO.	
					D		PK-46114-003		1 OF 2	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION										

POWER RECEPTACLE			
NUMBER OF POWER CIRCUITS	MATERIAL NUMBER (TIN)	MATERIAL NUMBER (TIN-LEAD)	STANDARD PACK QTY PER PRIMARY TUBE (SPQ)
2	46112-0200	46112-0204	21
	46112-0201	46112-0205	26
	46112-0206		
	46112-0203		17
	46112-0301		26
4	46112-0400	46112-0404	12
	46112-0401	46112-0405	13
	46112-0403	46112-0406	10
	46112-0407		10
6	46112-0600	46112-0604	8
	46112-0601	46112-0605	9
	46112-0603	46112-0606	7
8	46112-0800	46112-0804	6
	46112-0801	46112-0805	6
	46112-0803	46112-0806	6
	46112-0810	-----	6
10	46112-1000	46112-1004	5
	46112-1001	46112-1005	5
	46112-1003	46112-1006	4
12	46112-1200	46112-1204	4
	46112-1201	46112-1205	4
	46112-1203	46112-1206	4
14	46112-1400	46112-1404	3
	46112-1401	46112-1405	3
	46112-1403	46112-1406	3

SIGNAL RECEPTACLE			
NUMBER OF SIGNAL CIRCUITS	MATERIAL NUMBER (TIN)	MATERIAL NUMBER (TIN-LEAD)	STANDARD PACK QTY PER PRIMARY TUBE (SPQ)
12	46113-0120	46113-0124	21
	46113-0121	46113-0125	27
	46113-0123	46113-0126	18
	46113-0127		21
16	46113-0160	46113-0164	18
	46113-0161	46113-0165	22
	46113-0163	46113-0166	17
20	46113-0200	46113-0204	16
	46113-0201	46113-0205	19
	46113-0203	46113-0206	14
24	46113-0240	46113-0244	14
	46113-0241	46113-0245	16
	46113-0243	46113-0246	13
	46113-0247		16
28	46113-0280	46113-0284	13
	46113-0281	46113-0285	14
	46113-0283	46113-0286	11
32	46113-0320	46113-0324	11
	46113-0321	46113-0325	13
	46113-0323	46113-0326	10
36	46113-0360	46113-0364	10
	46113-0361	46113-0365	12
	46113-0363	46113-0366	10
40	46113-0400	46113-0404	10
	46113-0401	46113-0405	11
	46113-0403	46113-0406	9

RECEPTACLE WITH GUIDE POSTS				
NUMBER OF POWER CIRCUITS	NUMBER OF SIGNAL CIRCUITS	MATERIAL NUMBER (TIN)	MATERIAL NUMBER (TIN-LEAD)	STANDARD PACK QTY PER PRIMARY TUBE (SPQ)
2	12	46114-2120	46114-3120	11
	16	46114-2160	46114-3160	10
	20	46114-2200	46114-3200	9
	24	46114-2240	46114-3240	8
	28	46114-2280	46114-3280	8
	32	46114-2320	46114-3320	7
	36	46114-2360	46114-3360	7
	40	46114-2400	46114-3400	6
4	12	46114-4120	46114-5120	7
	16	46114-4160	46114-5160	7
	20	46114-4200	46114-5200	7
	24	46114-4240		6
	28	46114-4280	46114-5280	6
	32	46114-4320	46114-5320	6
	36	46114-4360	46114-5360	5
	40	46114-4400	46114-5400	5
6	12	46114-6120	46114-7012	6
	12	46114-7120 (2) SS		6
	16	46114-6160	46114-7160	5
	20	46114-6200	46114-7200	5
	24	46114-6240	46114-7240	5
	28	46114-6280	46114-7280	5
	32	46114-6320	46114-7320	4
	36	46114-6360	46114-7360	4
8	40	46114-6400	46114-7400	4
	40	46114-6402		4
	12	46114-8120	46114-9120	5
	16	46114-8160	46114-9160	4
	20	46114-8200	46114-9200	4
	20	46114-0005	-----	4
	24	46114-8240	46114-9240	4
	28	46114-8280		4
10	32	46114-8320	46114-9320	4
	36	46114-8360	46114-9360	4
	40	46114-8400	46114-9400	3
	12	46114-1012	46114-1112	4
	16	46114-1016		4
	20	46114-1020	46114-1120	3
	24	46114-1024	46114-1124	3
	28	46114-1028	46114-1128	3
12	32	46114-1032	46114-1132	3
	32	46114-1034 (1) SS		3
	36	46114-1036	46114-1136	3
	40	46114-1040	46114-1140	3
	12	46114-1212	46114-1312	3
	16	46114-1216	46114-1316	3
	20	46114-1220	46114-1320	3
	24	46114-1224	46114-1324	3
14	28	46114-1228	46114-1328	3
	32	46114-1232	46114-1332	3
	36	46114-1236	46114-1336	3
	40	46114-1240	46114-1340	3
	12	46114-1412	46114-1512	3
	16	46114-1416	46114-1516	3
	20	46114-1420	46114-1520	3
	24	46114-1424	46114-1524	3
14	28	46114-1428	46114-1528	2
	32	46114-1432	46114-1532	2
	36	46114-1436	46114-1536	2
	40	46114-1440	46114-1540	2

RECEPTACLE WITH NO GUIDE POSTS				
NUMBER OF POWER CIRCUITS	NUMBER OF SIGNAL CIRCUITS	MATERIAL NUMBER (TIN)	MATERIAL NUMBER (TIN-LEAD)	STANDARD PACK QTY PER PRIMARY TUBE (SPQ)
2	12	46114-2121	46114-3121	13
	16	46114-2161	46114-3161	12
	20	46114-2201	46114-3201	11
	24	46114-2241		10
	24	46114-2242		
	28	46114-2281	46114-3281	9
	32	46114-2321	46114-3321	8
	32	46114-3321	46114-3321	8
	36	46114-2361	46114-3361	8
	40	46114-2401	46114-3401	7
4	12	46114-4121	46114-5121	9
	16	46114-4161	46114-5161	8
	20	46114-4201	46114-5201	8
	24	46114-4241	46114-5241	7
	24	46114-4242		7
	24	46114-4243		7
	28	46114-4281	46114-5281	7
	32	46114-4321	46114-5321	6
6	36	46114-4361	46114-5361	6
	40	46114-4401	46114-5401	6
	12	46114-6121	46114-7121	6
	16	46114-6161	46114-7161	6
	20	46114-6201	46114-7201	6
	24	46114-6241	46114-7241	5
	28	46114-6281	46114-7281	5
	32	46114-6321	46114-7321	5
8	36	46114-6361	46114-7361	5
	40	46114-6401	46114-7401	5
	12	46114-8121	46114-9121	5
	16	46114-8161	46114-9161	5
	20	46114-8201	46114-9201	5
	24	46114-8241	46114-9241	4
	28	46114-8281	46114-9281	4
	32	46114-8321	46114-9321	4
10	36	46114-8361	46114-9361	4
	40	46114-8401	46114-9401	4
	12	46114-1013	46114-1113	4
	16	46114-1017	46114-1117	4
	20	46114-1021	46114-1121	4
	24	46114-1025	46114-1125	4
	28	46114-1029	46114-1129	4
	32	46114-1033	46114-1133	3
12	36	46114-1037	46114-1137	3
	40	46114-1041	46114-1141	3
	12	46114-1213	46114-1313	3
	16	46114-1217	46114-1317	3
	20	46114-1221	46114-1321	3
	24	46114-1225	46114-1325	3
	28	46114-1229	46114-1329	3
	32	46114-1233	46114-1333	3
14	36	46114-1237	46114-1337	3
	40	46114-1241	46114-1341	3
	12	46114-1413	46114-1513	3
	16	46114-1417	46114-1517	3
	20	46114-1421	46114-1521	3
	24	46114-1425	46114-1525	3
	28	46114-1429	46114-1529	3
	32	46114-1433	46114-1533	3
14	36	46114-1437	46114-1537	2
	40	46114-1441	46114-1541	2

G2

G2

SEE SHT. 1 EC NO: S2017-0371 DRW: NAL IN06 CHKD: ZENG APPR: KHLIM G2	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) 4 PLACES ± --- ± --- 3 PLACES ± --- ± .010 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± --- ANGULAR ± ---°	DIMENSION STYLE MM/IN DRAWN BY: KARADIMAS CHECKED BY: MBANDURA APPROVED BY: APATEL	SCALE: 1:1 DESIGN UNITS: METRIC THIRD ANGLE PROJECTION	TITLE: PACKAGING KIT LPH VERT. PRODUCT LINE MOLEX INCORPORATED PK-46114-003	SHEET NO.: 2 OF 2
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			