

Distributed by:

**JAMECO**<sup>®</sup>  
ELECTRONICS

**www.Jameco.com ♦ 1-800-831-4242**

The content and copyrights of the attached  
material are the property of its owner.

Jameco Part Number 802687

## FEATURES AND SPECIFICATIONS

### Features and Benefits

- Supports digital signals and offers excellent EMI/RFI performance
- Plug and play interface
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface
- Supports 4.95 Gbps over a single link and 9.9 Gbps performance over a dual link implementation
- Narrow key slot for polarization

### Reference Information

Product Specification: PS-74320-001

Packaging: 71781—Bag

74320—Tray

UL File No.: E29179

CSA File No.: LR19980

Mates With: Versions of [88741](#), 74323 and other plug components

Designed In: Inches

### Electrical

Voltage: 40V

Current: 3.0A

Contact Resistance: 20mΩ max.

Dielectric Withstanding Voltage: 500V

Insulation Resistance: 1000 MΩ min.

### Mechanical

Contact Retention to Housing: 1 lb. min.

Insertion Force to PCB: 10 lb. max.

Mating Force: 10 lb. max.

Unmating Force: 2.2 lb. min.

Durability: 100 cycles

### Physical

Housing: Glass-filled thermoplastic, UL 94V-0

Contact: Copper Alloy

Plating: Contact—30μ" Gold or Gold flash in contact area and 100μ" or 150μ" Tin/Lead in tail area over Nickel overall

Shields—100μ" bright Tin over Copper overall

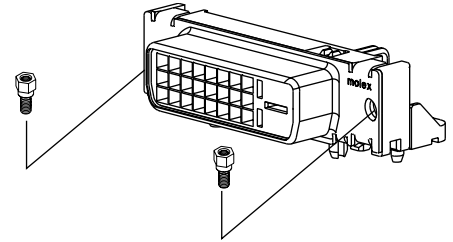
Operating Temperature: -20 to +85°C



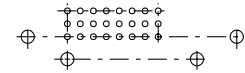
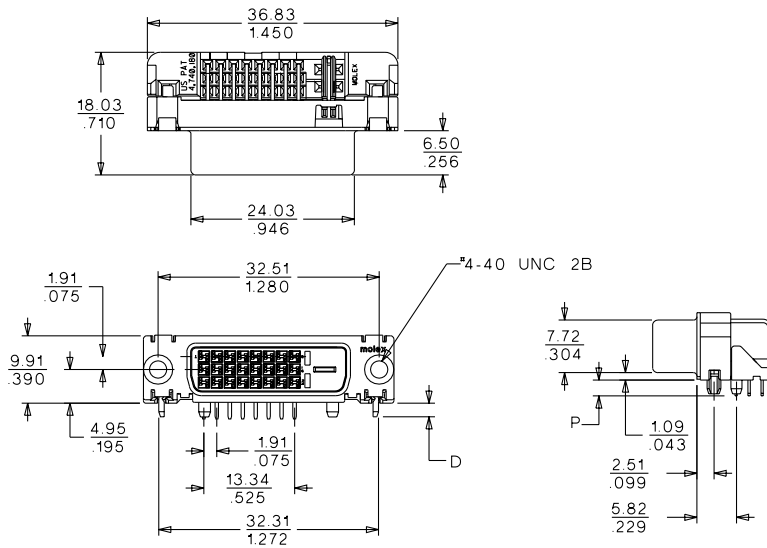
## MicroCross™ DVI-D Digital Visual Interface Receptacle Header and Hardware

**74320/71781**

## Panel Mount Through Hole Right Angle



## CATALOG DRAWING (FOR REFERENCE ONLY)



FOR P.C.B. LAYOUT AND PANEL  
CUTOUT CONTACT FACTORY.



## ORDERING INFORMATION AND DIMENSIONS

Order No.	Description	Dimension		Plating
		D	P	
74320-4000	Right Angle Receptacle	2.03 (.080)	2.34 (.092)	30μ" Gold
74320-4004	Right Angle Receptacle	2.03 (.080)	2.34 (.092)	Gold Flash
71781-0001	Jackpost			Clear Chromate
71781-0002	Self-Clinching Jackpost			Zinc/Yellow Chromate

Please contact Molex for additional tail length options





## PRODUCT SPECIFICATION



LANGUAGE

English

### 3.0 Applicable Documents

3.1 Requirements of the cable assemblies covered by this specification are detailed in several documents. The order of precedence is as follows:

1. Molex P&D product drawings
2. PS-71182, Molex P&D product specification
3. PS-73785-001, Molex P&D Composite Cable Specification
4. ES-73814-9998, Molex P&D Cable Assembly Termination Specification
5. This cable assembly specification
6. VESA Plug and Display Standard

### 3.2 Reference Documents

EIA RS-364-(13, 20, 21, 23, 70) Electronics Industries Association,  
Recommended Standard

### 4.0 Product Drawings

- 4.1 P&D - P&D Cable Assembly Drawing
- 4.2 P&D Plug Assembly Drawing: Overall Dimensions
- 4.3 Exploded P&D Plug Components View
- 4.4 P&D Grounding System Drawing
- 4.5 P&D Plug Connector Drawing

	REVISE ON PC ONLY		TITLE  P&D - P&D CABLE ASSEMBLY SPECIFICATION				
	C	SEE SHEET 1					
			THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
	REV	DESCRIPTION					
DOCUMENT NO. PS-73814-9997						FILE NAME PS73814.SAM	SHEET 2
ES-40000-3996 REV. A SHEET 4 95/MAR/10 EC U5-0926 DCBRD03.SAM							

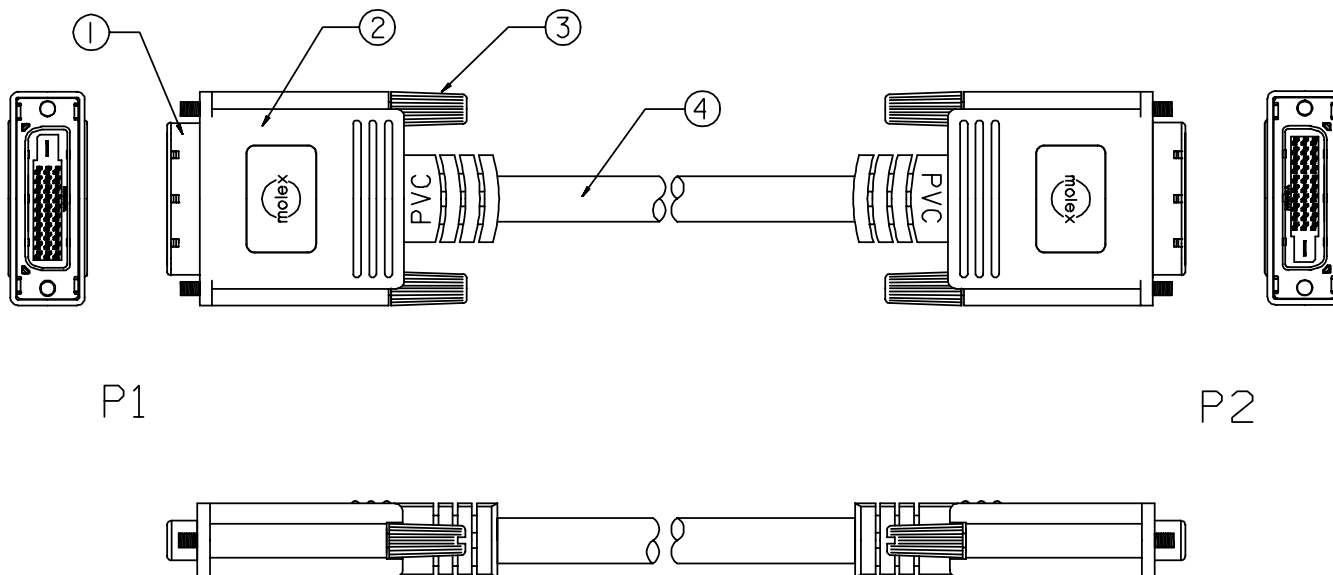


## PRODUCT SPECIFICATION



LANGUAGE

English



### 4.1 P&D - P&D Cable Assembly

#	Component Description	Quantity	Materials	Refer to Molex Sales Drawing
1	P&D Plug Connector	2	Refer to section 4.5	Listed in section 4.5
2	Molded Boot	2	PVC	SD-73784-002
3	Jackscrew with cap	4	Steel with PVC cap	SD-71757-0002
4	P&D Shielded Cable	1	Refer to Molex P&D Composite Cable Specification PS-73785-001	

REVISE ON PC ONLY		TITLE	
C	SEE SHEET 1	P&D - P&D CABLE ASSEMBLY SPECIFICATION	
REV	DESCRIPTION	THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
DOCUMENT NO. PS-73814-9997		FILE NAME PS73814.SAM	SHEET 3
ES-40000-3996 REV. A SHEET 4 95/MAR/10 EC U5-0926 DCBRD03.SAM			

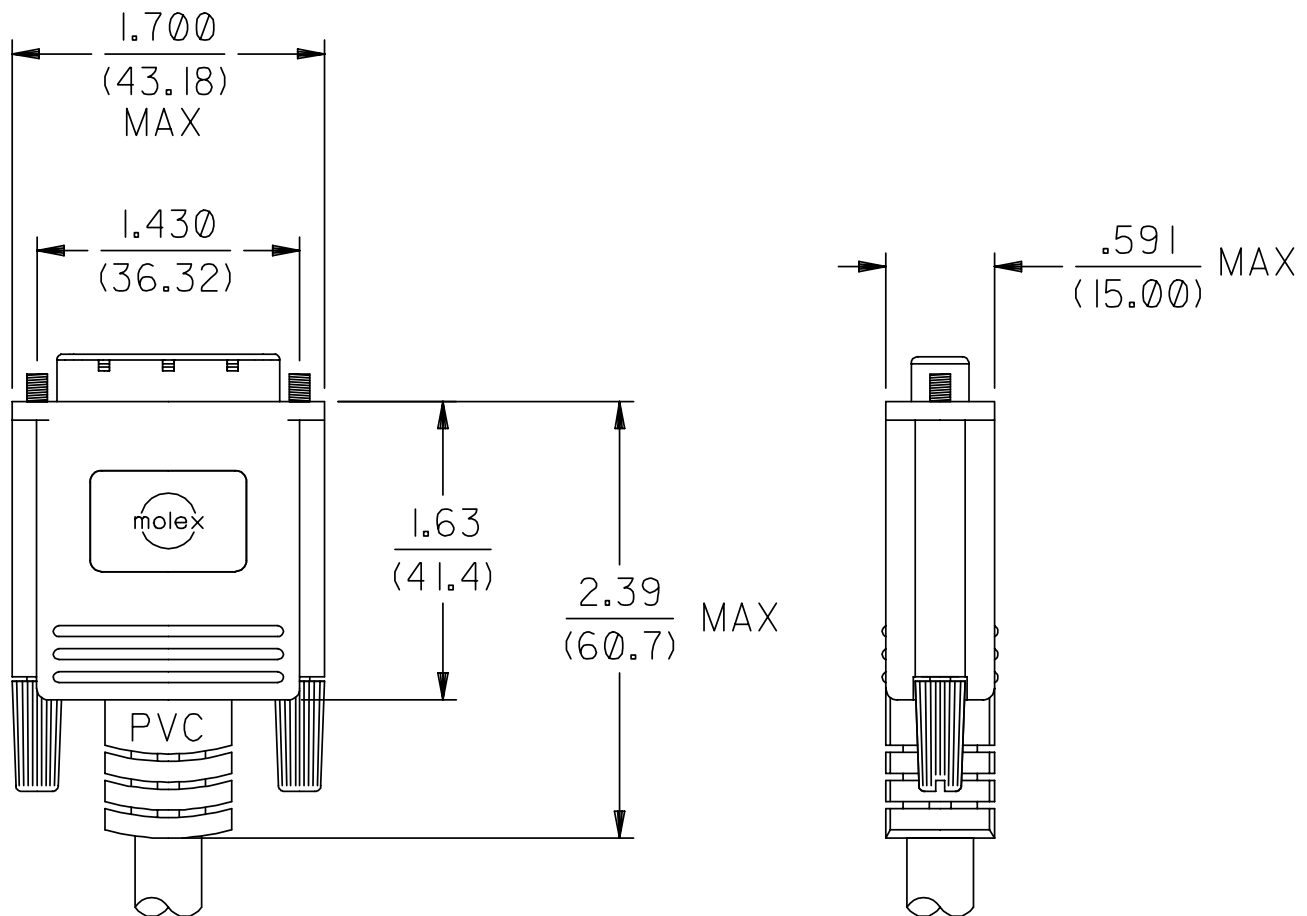


# PRODUCT SPECIFICATION



LANGUAGE

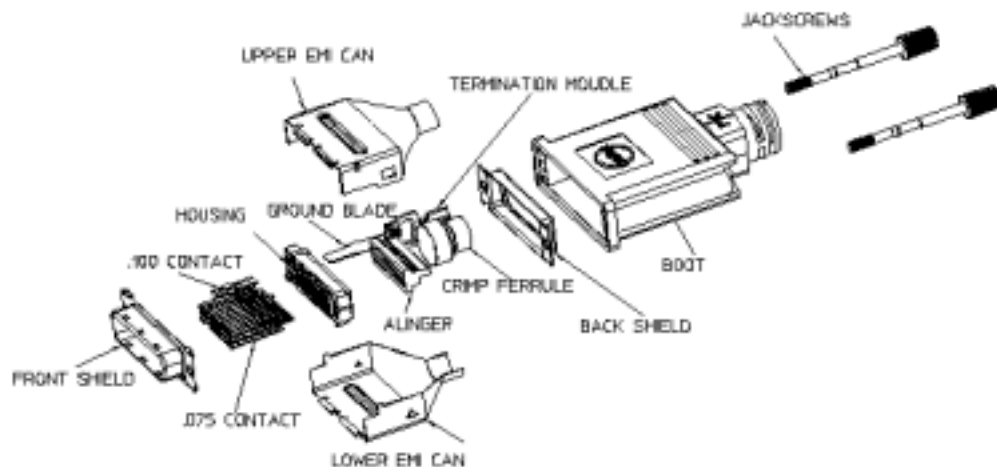
English



## 4.2 P&D Plug: Overall Dimensions

Note: units are inch over mm.

REVISE ON PC ONLY		TITLE P&D - P&D CABLE ASSEMBLY SPECIFICATION	
C	SEE SHEET 1		
REV	DESCRIPTION	THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
DOCUMENT NO. PS-73814-9997		FILE NAME PS73814.SAM	SHEET 4
ES-40000-3996 REV. A SHEET 4 95/MAR/10 EC U5-0926 DCBRD03.SAM			



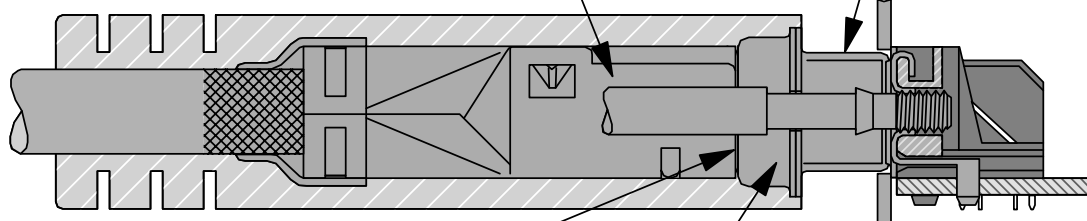
### 4.3 Exploded P&D Plug Components View

REVISE ON PC ONLY		TITLE  P&D - P&D CABLE ASSEMBLY SPECIFICATION  THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
C	SEE SHEET 1		
REV	DESCRIPTION		
DOCUMENT NO. PS-73814-9997		FILE NAME PS73814.SAM	SHEET 5
ES-40000-3996 REV. A SHEET 4 95/MAR/10 EC U5-0926 DCBRD03.SAM			



EMI can halves contact each other  
with redundant dimples & through crimp ferrule

Mating interface of plug/receptacle shells  
Multiple points of contact via detents



Hooks on EMI cans make reliable  
mechanical multi-point contact to the backshell

Backshell makes multi-point contact with the frontshell

## 4.4 P&D Grounding System

REVISE ON PC ONLY		TITLE	
C	SEE SHEET 1	P&D - P&D CABLE ASSEMBLY SPECIFICATION	
REV	DESCRIPTION	THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
DOCUMENT NO. PS-73814-9997		FILE NAME PS73814.SAM	SHEET 6
ES-40000-3996 REV. A SHEET 4 95/MAR/10 EC U5-0926 DCBRD03.SAM			



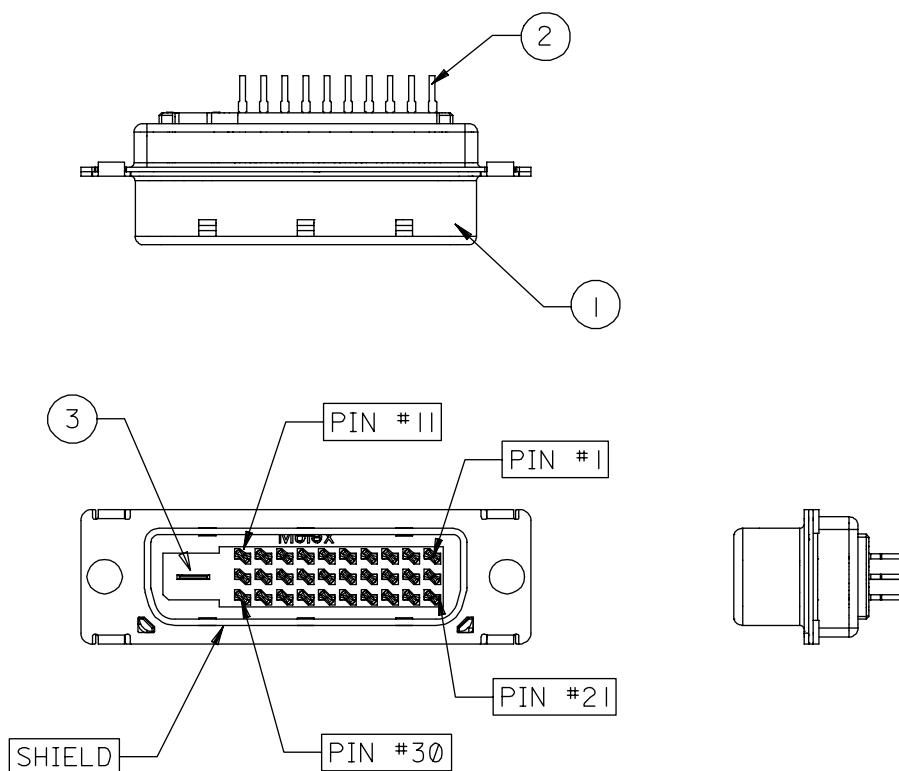


## PRODUCT SPECIFICATION



LANGUAGE

English



### 4.5 P&D Plug Connector

#	Component Description	Quantity	Materials / Finish	Refer to Molex Sales Drawing
1	Plug Subassembly	1	Shields: Steel, Tin (Sn) plated Housing: Glass Filled Polymer, Black, UL94V-0	SD-67485-001
2	EMI Shield Kit	1 set	Steel, Tin(Sn) plated	SDMS-71755-100*
3	Crimp Ferrule	1	Steel, Tin(Sn) plated	SD-73772-000
4	Boot	1	PVC	SD-73784-001
5	Jackscrew with Cap	2	Steel with PVC (cap)	SD-71757-0002

REVISE ON PC ONLY		TITLE	
C	SEE SHEET 1	P&D - P&D CABLE ASSEMBLY SPECIFICATION	
REV	DESCRIPTION	THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
DOCUMENT NO. PS-73814-9997		FILE NAME PS73814.SAM	SHEET 7
ES-40000-3996 REV. A SHEET 4 95/MAR/10 EC U5-0926 DCBRD03.SAM			



# PRODUCT SPECIFICATION



LANGUAGE

English

## 5.0 Wiring charts for standard cable types

Plug 1 Pin #	Signal Assignment	Basic & Sensing-CP	Basic, USB & Sensing-CP	Basic, USB, 1394 & Sensing-CP	Plug 2 Pin #
1	TMDS Data 2 +	Yes	Yes	Yes	1
2	TMDS Data 2 -	Yes	Yes	Yes	2
3	TMDS Data 2 return	Yes	Yes	Yes	3
4	N/C				4
5	N/C				5
6	N/C				6
7	TMDS Clock return	Yes	Yes	Yes	7
8	Sensing/Charge Power +	Yes	Yes	Yes	8
9	1394 pair A, data -			Yes	9
10	1394 pair A, data +			Yes	10
11	TMDS Data 1 +	Yes	Yes	Yes	11
12	TMDS Data 1 -	Yes	Yes	Yes	12
13	TMDS Data 1 return	Yes	Yes	Yes	13
14	TMDS Clock +	Yes	Yes	Yes	14
15	TMDS Clock -	Yes	Yes	Yes	15
16	USB Data +		Yes	Yes	16
17	USB Data -		Yes	Yes	17
18	Sensing/Charge Power return	Yes	Yes	Yes	18
19	1394 Vg / 1394 Drain			Yes	19
20	1394 Vp			Yes	20
21	TMDS Data 0 +	Yes	Yes	Yes	21
22	TMDS Data 0 -	Yes	Yes	Yes	22
23	TMDS Data 0 return	Yes	Yes	Yes	23
24	N/C				24
25	DDC return	Yes	Yes	Yes	25
26	DDC data (SDA)	Yes	Yes	Yes	26
27	DDC clock (SCL)	Yes	Yes	Yes	27
28	+5V dc	Yes	Yes	Yes	28
29	1394 pair B, clock +			Yes	29
30	1394 pair B, clock -			Yes	30
Shield	Outer Shield / USB Shield	Yes	Yes	Yes	Shield

REVISE ON PC ONLY		TITLE	P&D - P&D CABLE ASSEMBLY SPECIFICATION		
C	SEE SHEET 1				
THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
REV	DESCRIPTION				
DOCUMENT NO. PS-73814-9997				FILE NAME PS73814.SAM	SHEET 8
ES-40000-3996 REV. A SHEET 4 95/MAR/10 EC U5-0926 DCBRD03.SAM					



## PRODUCT SPECIFICATION

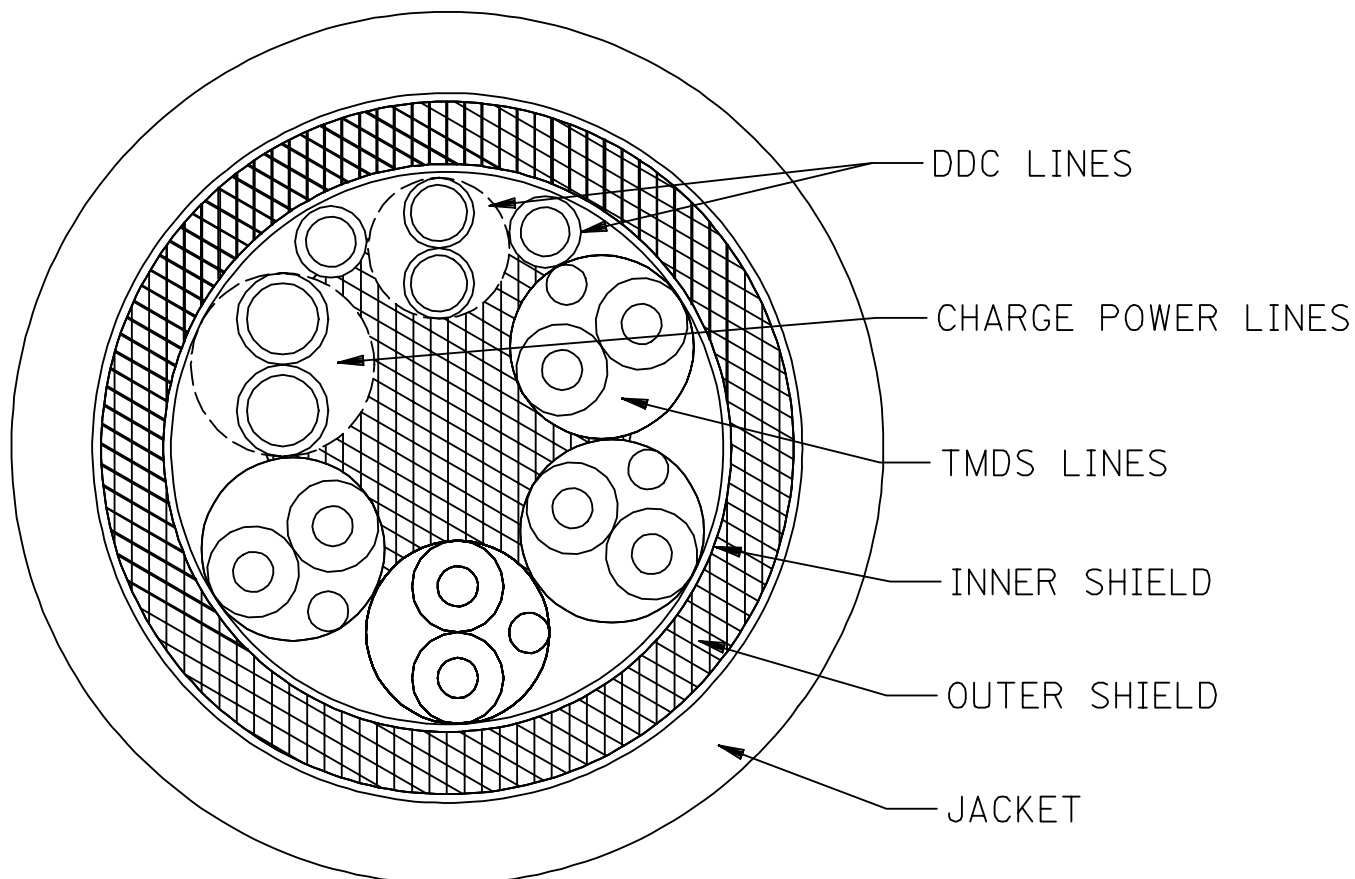


LANGUAGE

English

### 6.0 Cable Characteristics

#### 6.1 Cable Drawing



#### P&D Basic & Sensing-CP Cable

This drawing is shown for reference only. Please refer to Molex P&D cable specification for specific drawings and detailed construction information

REVISE ON PC ONLY		TITLE		
C	SEE SHEET 1	P&D - P&D CABLE ASSEMBLY SPECIFICATION		
REV	DESCRIPTION	THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
DOCUMENT NO. PS-73814-9997			FILE NAME PS73814.SAM	SHEET 9
ES-40000-3996 REV. A SHEET 4 95/MAR/10 EC U5-0926 DCBRD03.SAM				



# PRODUCT SPECIFICATION



LANGUAGE

English

## 6.2 Cable Specifications

	Item	Differential (TMDS) Lines	General Signal Lines
1	Rating	60° C, 30 V	
2	Conductor DC Resistance	0.10 $\Omega$ /ft (0.33 $\Omega$ /m) Nominal	28 AWG: 0.065 $\Omega$ /ft (0.21 $\Omega$ /m) Nominal 24 AWG: 0.025 $\Omega$ /ft (0.08 $\Omega$ /m) Nominal
3	Characteristic Impedance	100 $\pm$ 5 $\Omega$ @ TDR	Not specified
4	Insulation Resistance	50 M $\Omega$ -1000 ft (15 M $\Omega$ -Km) Minimum at 2° C	
5	Dielectric Strength	500 VDC for 1 minute	
6	Mutual Capacitance	14.0 pF/ft (59.1 pF/m) Nominal	Not specified
7	Inflammability	VW-1	
8	Weight	Refer to cable specification	
9	Marking	Refer to cable specification	

## 7.0 Product Characteristics

### 7.1 Cable Assembly Specifications

#### 7.1.1 In Process Electrical Test Specifications

	Item	Conditions	Specifications
1	Insulation Resistance		100 M $\Omega$
2	Dielectric Strength	Duration = 10 milliseconds	500 VDC
3	Continuity		2 $\Omega$

#### 7.1.2 Mechanical Specifications

	Item	Conditions	Specifications
1	Appearance	Refer to Molex process sheets for a specific assembly	
2	Examination of product	Refer to Molex process sheets for a specific assembly	
3	Cable Pull Force	20-25 lbs (89-111 N) for 30 seconds	No visible termination damage
4	Cable Flex	Per EIA 364-41, Condition 1	100 cycles in each of 2 planes

REVISE ON PC ONLY		TITLE	
C	SEE SHEET 1	P&D - P&D CABLE ASSEMBLY SPECIFICATION	
REV	DESCRIPTION	THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
DOCUMENT NO. PS-73814-9997		FILE NAME PS73814.SAM	SHEET 10
ES-40000-3996 REV. A SHEET 4 95/MAR/10 EC U5-0926 DCBRD03.SAM			



## PRODUCT SPECIFICATION



LANGUAGE

English

### 7.1.3 Environmental Specification

Environmental testing includes: Thermal Shock, Cyclic Humidity, Thermal Aging, and Corrosive Environment testing. Testing is typically performed between the mated header and cable assembly. Refer to Molex product specification PS-71182, Section 5.3, for more detail on these environmental specifications.

## 7.2 P&D Plug Connector Specifications

### 7.2.1 Electrical Specifications

	Item	Conditions	Specifications
1	Rated Voltage		40 VAC RMS
2	Rated Current	Per EIA-364-70 55° C max ambient	1.50 Amps per circuit 30° C max temp rise
3	Dielectric Strength	EIA 364-20, Method C, Unmated and Unmounted	500 VDC for 1 minute
4	Insulation Resistance	Measured after 500 VDC for 1 minute per EIA 364-21, Method C, Unmated and Unmounted	1 gigaohm minimum
5	Contact Resistance	Per EIA 364-23	20 milliohms maximum initial 10 milliohms maximum change

### 7.2.2 Mechanical Specifications

	Item	Conditions	Specifications
1	Mating Force	1 pair per EIA364-13	10.0 lbf (4.5 kgf) max
2	Unmating Force	1 mated pair per EIA364-13	2.2 lbf (1.00 kgf) min

### 7.2.3 Reliability Specifications

Reliability testing is typically performed between the mated header and cable assembly. Refer to Molex product specification PS-71182, Sections 5.2 and 5.3, for more detail on these specifications.

REVISE ON PC ONLY		TITLE	
C	SEE SHEET 1	P&D - P&D CABLE ASSEMBLY SPECIFICATION	
REV	DESCRIPTION	THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
DOCUMENT NO. PS-73814-9997		FILE NAME PS73814.SAM	SHEET 11
ES-40000-3996 REV. A SHEET 4 95/MAR/10 EC U5-0926 DCBRD03.SAM			



## PRODUCT SPECIFICATION



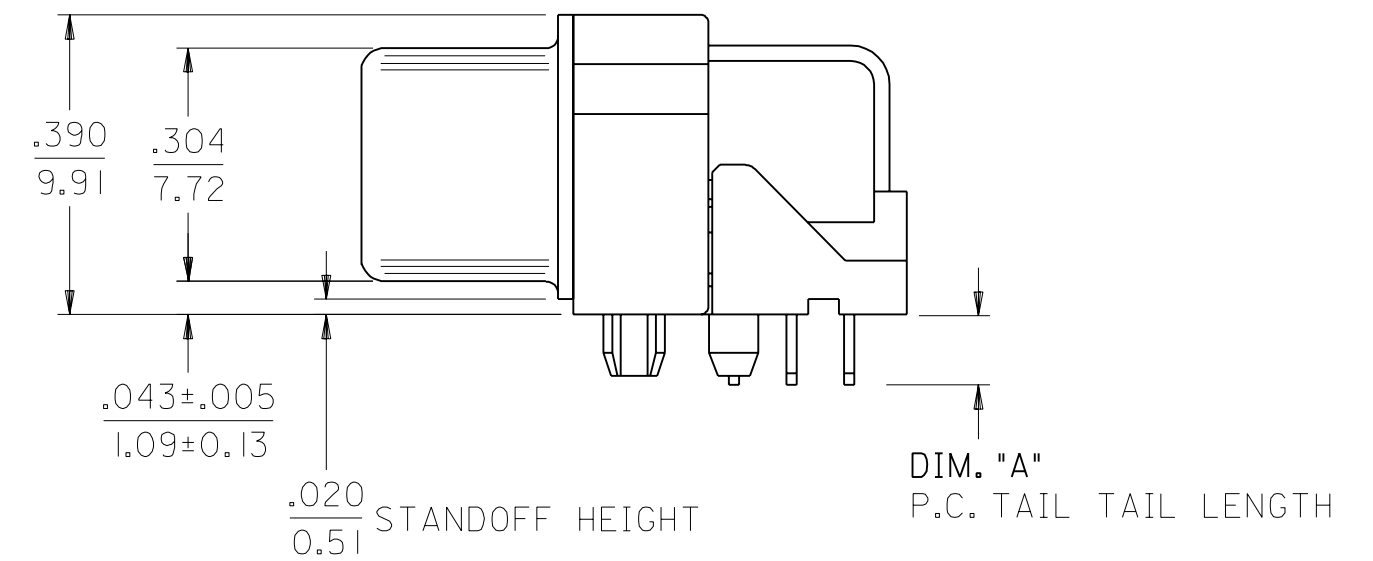
LANGUAGE

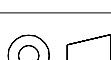

English

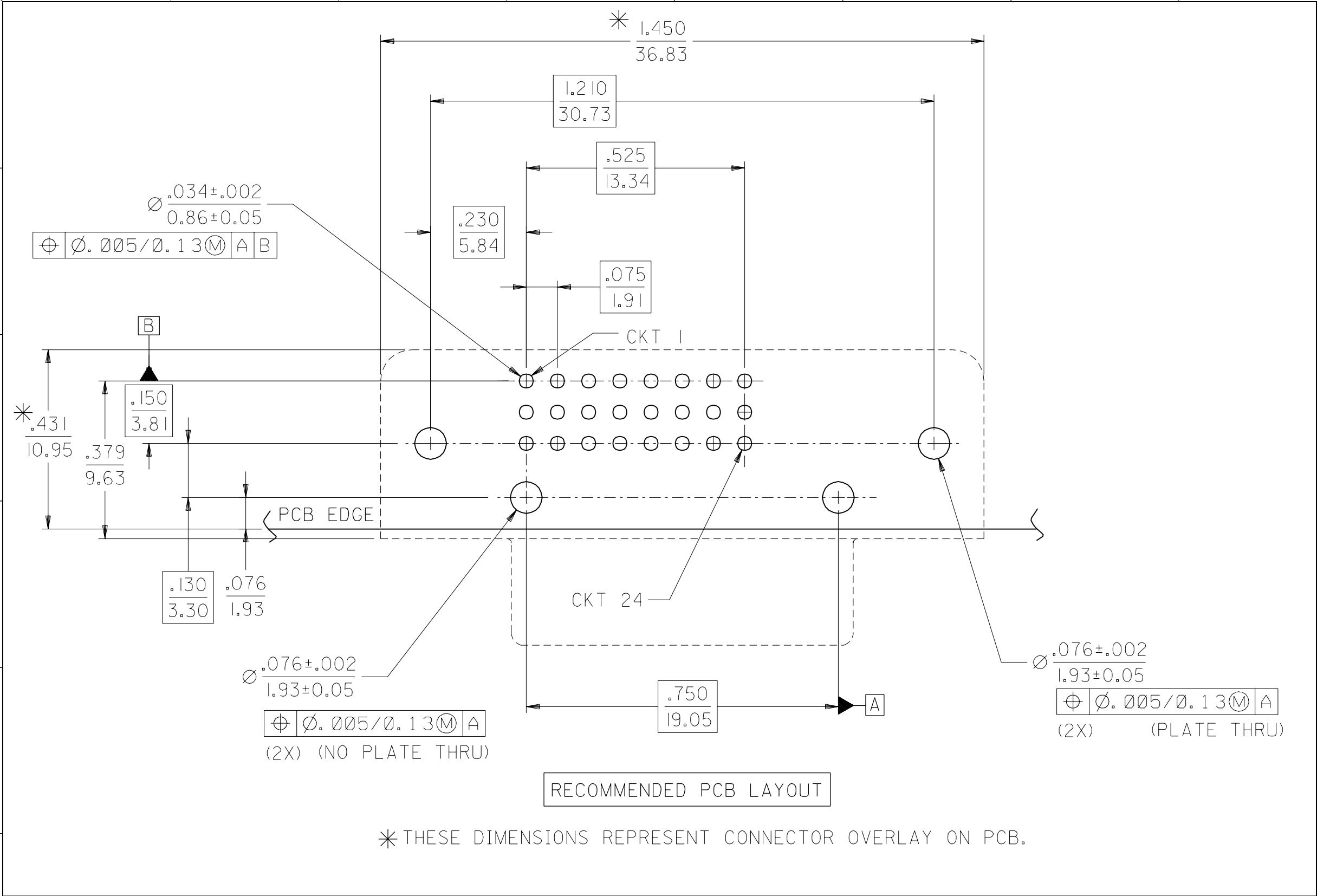
### 8.0 Packaging

Individual cable assemblies are tied and packaged in separate plastic bags. Refer to appropriate packaging specification for information on a specific cable's packaging .

	REVISE ON PC ONLY		TITLE  P&D - P&D CABLE ASSEMBLY SPECIFICATION				
	C	SEE SHEET 1					
			THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
	REV	DESCRIPTION					
DOCUMENT NO. PS-73814-9997						FILE NAME PS73814.SAM	SHEET 12
ES-40000-3996 REV. A SHEET 4 95/MAR/10 EC U5-0926 DCBRD03.SAM							



 THIRD ANGLE PROJECTION		<input type="checkbox"/> mm INCH		<input checked="" type="checkbox"/> mm INCH		<input type="checkbox"/> ONLY ONLY		SHY REV REVISE ON CAD ONLY	
TITLE:		DVI - DIGITAL RIGHT ANGLE RECEPTACLE CONNECTOR							
 MOLEX INCORPORATED									
MATERIAL NO. SEE CHART		DRAWING NO. SD-74320-003				SHEET NO. 1 OF 2			
NO INFORMATION THAT IS PROPRIETARY TO MOLEX COULD NOT BE USED WITHOUT WRITTEN PERMISSION.								SIZE C	



PLATING OPTIONS:

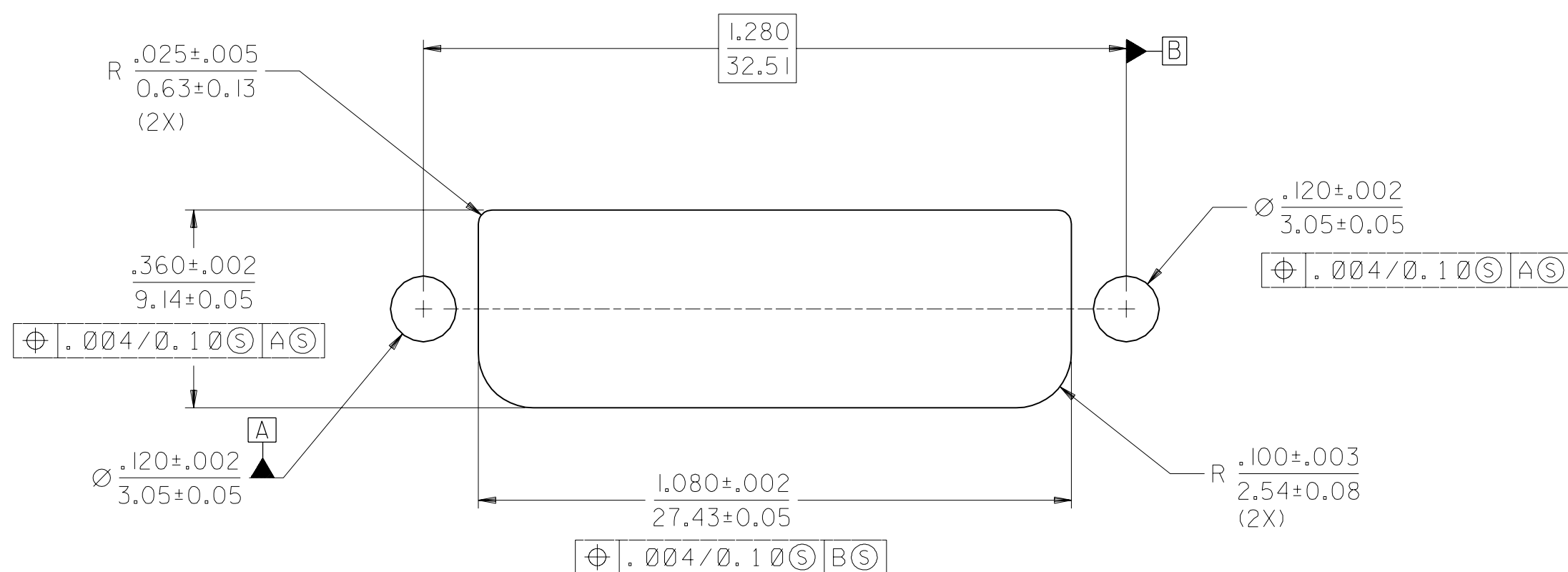
PLATING OPTION # 1:

OUTER SHIELD -- 150u"/(3.75um) MIN. BRIGHT TIN OVER  
50u"/(1.27um) MIN. NICKEL OVER COPPER FLASH.

.075"/(1.91mm) CONTACTS -- 30u"/(0.75um) MIN. SELECT GOLD AND  
100u"/(2.50um) MIN. SELECT PURE TIN  
OVER 50u"/(1.27um) MIN. NICKEL OVERALL.

PLATING OPTION #2:

OUTER SHIELD -- 150u"/(3.75um) MIN. BRIGHT TIN OVER  
50u"/(1.27um) MIN. NICKEL OVER COPPER FLASH.

[illegible]

RECOMMENDED PANEL CUT-OUT

PANEL THICKNESS: .030" - .040"

MODIFICATION EC NO. SH2004-0130 DRAWN: DXUE 04/03/05 CHK: HARVEY 04/03/11 APPR: SHUANG 04/03/12		DESCRIPTION	QUALITY SYMBOLS		GENERAL TOLERANCES: (UNLESS SPECIFIED)		SCALE 4 : 1	DESIGN UNITS <input type="checkbox"/> mm <input checked="" type="checkbox"/> INCH	THIRD ANGLE PROJECTION	<input type="checkbox"/> mm INCH	<input checked="" type="checkbox"/> INCH mm	<input type="checkbox"/> mm ONLY <input type="checkbox"/> INCH ONLY	REVISE ON CAD ONLY	
			<div>MAJOR </div> <div>CRITICAL </div>		mm	INCH	DRAWN BY & DATE mosulliv 99/02/12		TITLE: DVI - D RIGHT ANGLE RECPTACLE CONNECTOR					
				4 PLACES	±0.	±.	CHECKED BY & DATE mosulliv 99/02/12							
				3 PLACES	±0.	±.010	APPROVED BY & DATE nelligan 99/02/15		MOLEX INCORPORATED					
2 PLACES	±0.25	±.010	CAD FILENAME SD74320003.S02		MATERIAL NO. SEE CHART	DRAWING NO. SD-74320-003	SHEET NO. 2							
		REV			ANGULAR: ± 1/2°									
					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.						SIZE C	