

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

**Part Number:** [0471511052](#)  
**Status:** **Active**  
**Overview:** high definition multimedia interface hdmi  
**Description:** 0.50mm (.020") Pitch HDMI\* Receptacle, Right Angle, Gold (Au) Flash Plating, Front Solder Tab Length 1.80mm (.071"), Shell Nickel (Ni) Plated, with Flange and Back Cover, Black Housing, Tape on Reel Packaging, Lead Free

**Documents:**

[3D Model](#) [Product Specification PS-47152-001 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**General**

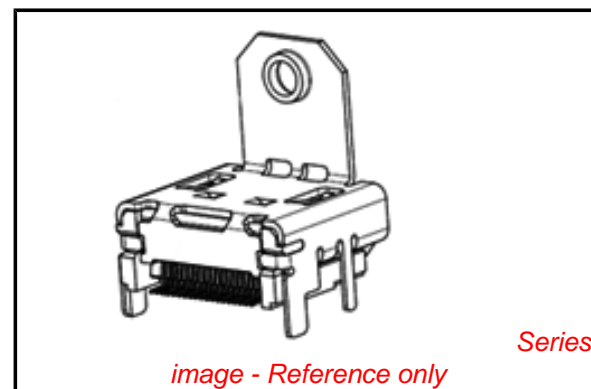
Product Family	I/O Connectors
Series	<a href="#">47151</a>
Application	Wire-to-Board
Component Type	Receptacle
Overview	<a href="#">high definition multimedia interface hdmi</a>
Product Name	HDMI
Type	N/A

**Physical**

Boot Color	N/A
Circuits (Loaded)	19
Color - Resin	Black
Gender	Male
Keying to Mating Part	Yes
Lock to Mating Part	Yes
Material - Metal	Copper Alloy
Material - Plating Mating	Gold
Material - Plating Termination	Tin-Bismuth
Number of Rows	2
Orientation	Right Angle
PCB Locator	No
PCB Retention	Yes
Packaging Type	Embossed Tape on Reel
Panel Mount	With Flange
Pitch - Mating Interface (in)	0.020 In
Pitch - Mating Interface (mm)	0.50 mm
Pitch - Term. Interface (in)	0.020 In
Pitch - Term. Interface (mm)	0.50 mm
Plating min: Mating (µin)	2
Plating min: Mating (µm)	0.05
Plating min: Termination (µin)	40
Plating min: Termination (µm)	1
Polarized to Mating Part	Yes
Polarized to PCB	Yes
Ports	1
Temperature Range - Operating	-20°C to +85°C
Termination Interface: Style	Surface Mount
Waterproof / Dustproof	No
Wire Size AWG	N/A

**Electrical**

Current - Maximum per Contact	.5A
Shielded	Yes
Voltage - Maximum	40V DC



**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**

[47151Series](#)

**Mates With**

[88768](#) HDMI cable assembly, [88764](#) HDMI Adapter, [88767](#) HDMI Adapter

### **Solder Process Data**

Duration at Max. Process Temperature (seconds)	3
Lead-free Process Capability	Reflow Capable (SMT only)
Max. Cycles at Max. Process Temperature	2
Process Temperature max. C	250

### **Material Info**

#### **Reference - Drawing Numbers**

Packaging Specification	PK-47151-002
Product Specification	PS-47152-001
Sales Drawing	SD-47151-001

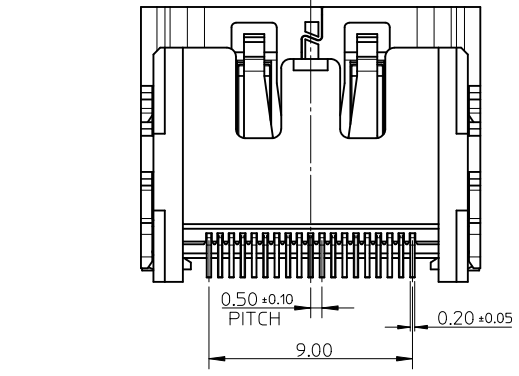
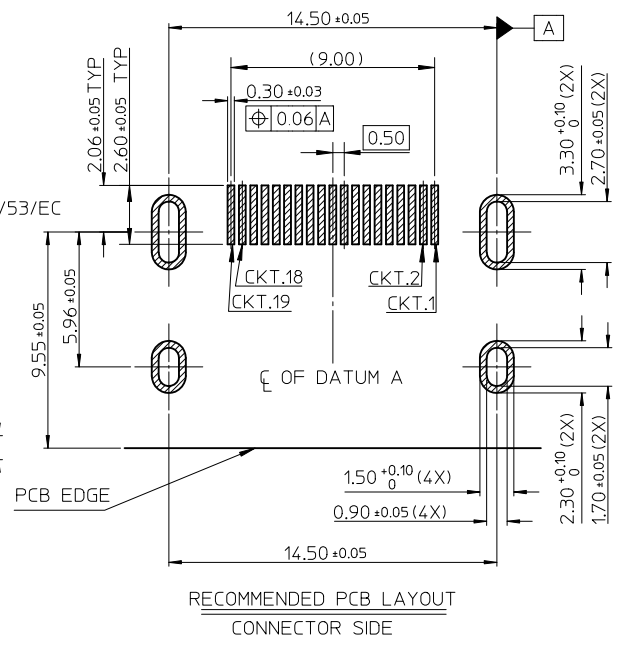
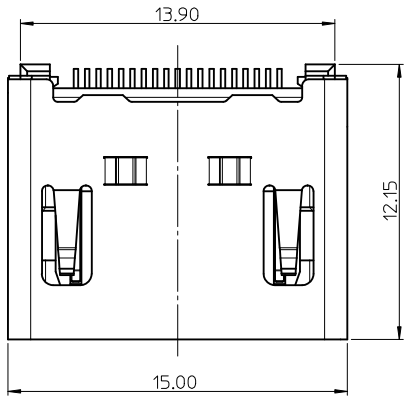
\* High Definition Multimedia Interface and HDMI are trademarks of HDMI Licensing, LLC.

This document was generated on 05/25/2010

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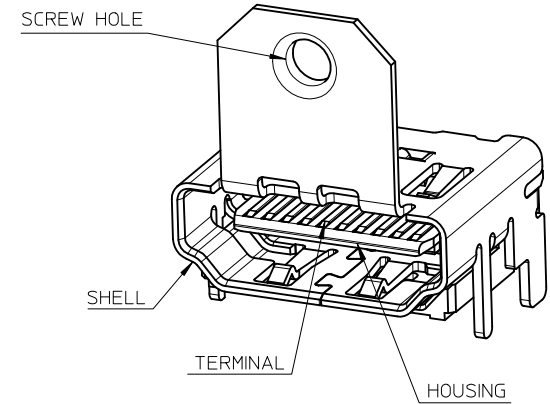
NOTES:

1. MATERIAL:  
HOUSING: THERMOPLASTIC . COLOR: SEE TABLE.  
SHELL: COPPER ALLOY.  
TERMINAL: COPPER ALLOY.
2. PLATING:  
TERMINAL:  
CONTACT AREA: (1) 0.76 MICROMETER MIN. GOLD PLATING.  
(2) 0.25 MICROMETER MIN. GOLD PLATING.  
(3) GOLD FLASH.  
(4) 0.375 MICROMETER MIN. GOLD PLATING.  
SOLDER AREA: 1 MICROMETER MIN. TIN-BISMUTH ALLOY PLATED.  
UNDER PLATE: 1.27 MICROMETER MIN. NICKEL.  
SHELL: (a) 1.27 MICROMETER MIN. SOLDERABLE NICKEL PLATE OVERALL.  
(b) GOLD FLASH PLATING OVER 1.27 MICROMETER MIN. NICKEL PLATING OVERALL.
3. COPLANARITY IS 0.1MM MAX.
4. PRODUCT SPECIFICATION REFER TO PS-47152-001.
5. PACKAGE SPECIFICATION FOR WITHOUT FLANGE REFER TO PK-47151-001.
6. PRODUCT COMPLIANT TO RoHS DEIRECTIVE 2002/95/EC AND ELV DIRECTIVE 2000/53/EC



RECOMMENDED PANEL CUT OUT DIMENSION

<b>ADD PART NUMBER</b> EC NO: SH2010-0164 DRWN:XOZHANG 2009/10/20 CHKD:GLLI 2009/10/21 APPR:XJISONG 2009/11/30	<b>QUALITY SYMBOLS</b> F=0 F=0 F=0	<b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b>		<b>DIMENSION STYLE</b> MM ONLY	<b>SCALE</b> 5:1	<b>DESIGN UNITS</b> METRIC	THIRD ANGLE PROJECTION		
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± 0.25 ± ---	mm INCH	DRAWN BY RZHANG	DATE 2004/07/20	TITLE 1.0 HDMI RIGHT ANGLE HEADER ASSEMBLY(19 PIN) LEAD FREE			
		ANGULAR ± 3 °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	CHECKED BY GRMA	DATE 2004/07/20	MOLEX INCORPORATED			
		SEE SHEET 6	MATERIAL NO.	APPROVED BY YTYAP	DATE 2004/07/20	DOCUMENT NO. SD-47151-001	SHEET NO. 1 OF 8		

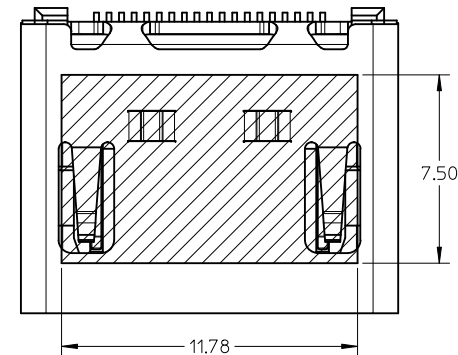
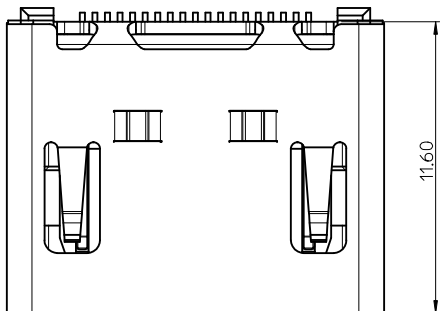


NOTES:

1. THE UNSPECIFIED DIMENSIONS REFER TO SHEET 1.
2. PACKAGE SPECIFICATION FOR WITH FLANGE REFER TO PK-47151-002.

SEE SHEET 1 EC NO: SH2010-0164 DRWN: XQZHANG CHKD: GLLI APPR: XJ SONG	2009/10/20 2009/10/21 2009/11/30	QUALITY SYMBOLS $\nabla_A = 0$ $\nabla_C = 0$ $\nabla_P = 0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE <b>MM ONLY</b>		SCALE <b>5:1</b>	DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION	
						DRAWN BY RZHANG	DATE 2004/07/20	TITLE <b>1.0 HDMI RIGHT ANGLE HEADER ASSEMBLY(19 PIN) LEAD FREE</b>		
						CHECKED BY GRMA	DATE 2004/07/20	<b>MOLEX INCORPORATED</b>		
						APPROVED BY YTYAP	DATE 2004/07/20	MATERIAL NO. <b>SEE SHEET 6</b>	DOCUMENT NO. <b>SD-47151-001</b>	SHEET NO. <b>2 OF 8</b>
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE <b>A3</b>	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

WITH BACK COVER



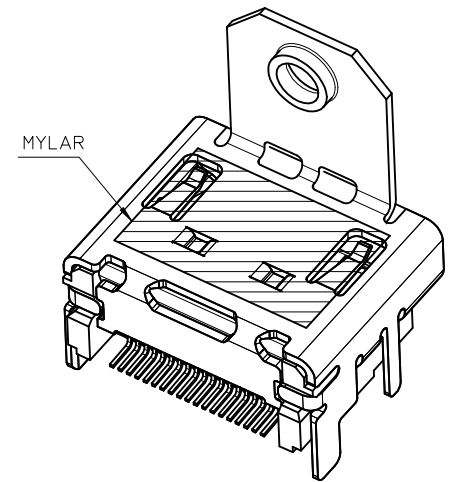
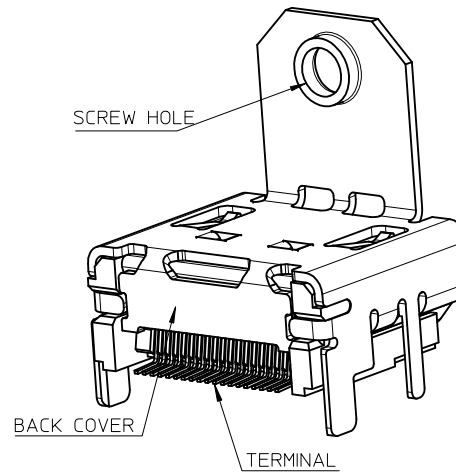
NOTES:

1. THE UNSPECIFIED DIMENSIONS REFER TO 47151-0001.
2. PACKAGE SPECIFICATION FOR WITHOUT FLANGE REFER TO PK-47151-001.

THIS IS ONLY FOR 47151-1061/1071/1081

SEE SHEET 1 EC NO: SH2010-0164 DRWN: XQZHANG CHKD: GLLI APPR: XJSONG	2009/10/20 2009/10/21 2009/11/30	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
			$\nabla_A = 0$ $\nabla_B = 0$ $\nabla_C = 0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± 0.25 ± --- ANGULAR ± 3 °	MM ONLY	5:1	METRIC	DRAWN BY: RZHANG CHECKED BY: GRMA APPROVED BY: YTYAP MATERIAL NO.	DATE: 2004/07/20 DATE: 2004/07/20 DATE: 2004/07/20	TITLE: 1.0 HDMI RIGHT ANGLE HEADER ASSEMBLY(19 PIN) LEAD FREE MOLEX INCORPORATED
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE SHEET 7	SIZE: A3	DOCUMENT NO.: SD-47151-001	SHEET NO.: 3 OF 8			
			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							

WITH BACK COVER



THIS IS ONLY FOR  
47151-1025/1075/1085/6022/6032/1026/2062

NOTES:

1. THE UNSPECIFIED DIMENSIONS REFER TO 47151-0002.
2. PACKAGE SPECIFICATION FOR WITH FLANGE:  
 OPTION 1: 47151-1026/2062/6032 REFER TO PK-47151-005.  
 OPTION 2: 47151-1102 REFER TO PK-47151-003.  
 OPTION 3: OTHER PART NUMBER REFER TO PK-47151-002.

SEE SHEET 1 EC NO: SH2010-0164 DRW: XQZHANG CHK: GLLI APPR: XJSONG	2009/10/20 2009/10/21 2009/11/30	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
			$\nabla_A = 0$ $\nabla_C = 0$ $\nabla_B = 0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± 0.25 ± --- ANGULAR ± 3 °	MM ONLY	5:1	METRIC		
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY: RZHANG CHECKED BY: GRMA APPROVED BY: YTYAP MATERIAL NO.	DATE: 2004/07/20 DATE: 2004/07/20 DATE: 2004/07/20	TITLE: 1.0 HDMI RIGHT ANGLE HEADER ASSEMBLY(19 PIN) LEAD FREE MOLEX INCORPORATED DOCUMENT NO. SD-47151-001		
				SIZE: A3	SEE SHEET 8 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	SHEET NO. 4 OF 8			



WITHOUT TOP HOLE



- NOTES:
1. THE UNSPECIFIED DIMENSIONS REFER TO 47151-1102.
  2. PACKAGE SPECIFICATION FOR WITH FLANGE REFER TO PK-47151-002.

SEE SHEET 1 IEC NO: SH2010-0164 DRWN: XZZHANG CH'KD: GLLI APPR: XJ.SONG	2009/10/20 2009/10/21 2009/11/30	DESCRIPTION QUALITY SYMBOLS △ <sub>F</sub> =0 △ <sub>F</sub> =0 △ <sub>F</sub> =0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION			
					MM ONLY	5:1	METRIC				
					mm	INCH	DRAWN BY	DATE	TITLE		
					4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± 0.25 ± --- ANGULAR ± 3 °		RZHANG 2004/07/20 GRMA 2004/07/20 YTYAP 2004/07/20	1.0 HDMI RIGHT ANGLE HEADER ASSEMBLY(19 PIN) LEAD FREE			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.	DOCUMENT NO.	SHEET NO.					
				SEE SHEET 7	MOLEX INCORPORATED			5 OF 8			
				THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							

ASSEMBLY P/N	DIMENSION					FEATURE				HOUSING COLOUR	GOLD PLATING IN CONTACT AREA	SHELL PLATING	REMARK
	DIM A	DIM B	DIM C	DIM D	DIM E	FLANGE	BACK COVER	TOP HOLES	MYLAR				
47151-0001	1.80	2.20	/	/	/	W/O	W/O	WITH	W/O	BLACK	SEE NOTE 2 (1)	SEE NOTE 2 (a)	FOR SHEET 1
47151-0041													
47151-0051													
47151-0011													
47151-0071													
47151-0061													
47151-0021													
47151-0031													
47151-0101	1.45	1.45	/	/	/	W/O	W/O	WITH	W/O	BLACK	SEE NOTE 2 (1)	SEE NOTE 2 (a)	FOR SHEET 1
47151-0141													
47151-0151													
47151-0111													
47151-0181													
47151-0161													
47151-0121													
47151-0131													
47151-0002	1.80	2.20	M3.0x0.5	16.08	13.38	WITH	W/O	WITH	W/O	BLACK	SEE NOTE 2 (1)	SEE NOTE 2 (a)	FOR SHEET 2
47151-0042													
47151-0062													
47151-0012													
47151-0052													
47151-0072													
47151-0022													
47151-0032													
47151-0102	1.45	1.45	M3.0x0.5	16.08	13.38	WITH	W/O	WITH	W/O	BLACK	SEE NOTE 2 (1)	SEE NOTE 2 (a)	FOR SHEET 2
47151-0142													
47151-0162													
47151-0112													
47151-0152													
47151-0172													
47151-0122													
47151-0132													
47151-6002	1.80	2.20	M3.0x0.5	14.25	11.28	WITH	W/O	WITH	W/O	BLACK	SEE NOTE 2 (1)	SEE NOTE 2 (a)	
47151-6062													
47151-6082													
47151-6102	1.45	1.45	M3.0x0.5	14.25	11.28	WITH	W/O	WITH	W/O	BLACK	SEE NOTE 2 (1)	SEE NOTE 2 (a)	
47151-6172													
47151-6162													

<b>SEE SHEET 1</b> EC NO: SH2010-0164 2009/10/20 DRWN:XOZHANG 2009/10/21 CHKD:GLL 2009/10/21 APPR:XJ.SONG 2009/11/30	QUALITY SYMBOLS $F_A=0$ $F_C=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE <b>MM ONLY</b>		SCALE <b>1:1</b>	DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION	
				DRAWN BY RZHANG	DATE 2004/07/20	TITLE <b>1.0 HDMI RIGHT ANGLE HEADER ASSEMBLY(19 PIN) LEAD FREE</b>			
				CHECKED BY GRMA	DATE 2004/07/20	APPROVED BY YTYAP			
				MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-47151-001			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE <b>A3</b>		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			



ASSEMBLY P/N	DIMENSION					FEATURE				HOUSING COLOUR	GOLD PLATING IN CONTACT AREA	SHELL PLATING	REMARK												
	DIM A	DIM B	DIM C	DIM D	DIM E	FLANGE	BACK COVER	TOP HOLES	MYLAR																
47151-1001	1.80	2.20	/	/	/	W/O	WITH	WITH	W/O	BLACK	SEE NOTE 2 (1) SEE NOTE 2 (2) SEE NOTE 2 (3) SEE NOTE 2 (4)	SEE NOTE 2 (a)	FOR SHEET 3												
47151-1041																									
47151-1051																									
47151-1003																									
47151-1061																									
47151-1071																									
47151-1081																									
47151-1011																									
47151-1211																									
47151-1311																									
47151-1021																									
47151-1091																									
47151-1031																									
47151-1101																									
47151-1141	1.45	1.45	/	/	/	W/O	WITH	WITH	W/O	SEE NOTE 2 (1) SEE NOTE 2 (2) SEE NOTE 2 (3) SEE NOTE 2 (1) SEE NOTE 2 (2) SEE NOTE 2 (3)	SEE NOTE 2 (a)	FOR SHEET 5													
47151-1151																									
47151-1111																									
47151-1161																									
47151-1171																									
47151-1121																									
47151-1131																									
47151-7102																									
47151-7142																									
47151-7162																									
													1.45	1.45	M3.0x0.5	16.08	13.38	WITH	WITH	W/O	W/O	BLACK	SEE NOTE 2 (1) SEE NOTE 2 (2) SEE NOTE 2 (3)	SEE NOTE 2 (a)	FOR SHEET 5

<b>SEE SHEET 1</b> EC NO: SH2010-0164 DRWN: XZHANG 2009/10/20 CHKD: GLLI 2009/10/21 APPR: XJISONG 2009/11/30	QUALITY SYMBOLS $\nabla_A = 0$ $\nabla_B = 0$ $\nabla_C = 0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE <b>MM ONLY</b>		SCALE <b>1:1</b>	DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION	
		4 PLACES $\pm$ --- $\pm$ --- 3 PLACES $\pm$ --- $\pm$ --- 2 PLACES $\pm$ 0.25 $\pm$ --- 1 PLACE $\pm$ 0.25 $\pm$ ---	mm      INCH	DRAWN BY RZHANG	DATE 2004/07/20	TITLE <b>1.0 HDMI RIGHT ANGLE HEADER ASSEMBLY(19 PIN) LEAD FREE</b>			
		ANGULAR $\pm$ 3 °		CHECKED BY GRMA	DATE 2004/07/20	MOLEX INCORPORATED			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY YTYAP	DATE 2004/07/20	MATERIAL NO. <b>SEE TABLE</b>	DOCUMENT NO. SD-47151-001	SHEET NO. 7 OF 8	

ASSEMBLY P/N	DIMENSION					FEATURE				HOUSING COLOUR	GOLD PLATING IN CONTACT AREA	SHELL PLATING	REMARK											
	DIM A	DIM B	DIM C	DIM D	DIM E	FLANGE	BACK COVER	TOP HOLES	MYLAR															
47151-1002	1.80	2.20	M3.0x0.5	16.08	13.38	WITH	WITH	WITH	W/O	BLACK	SEE NOTE 2 (1)	SEE NOTE 2 (a)												
47151-1042											SEE NOTE 2 (2)													
47151-1052											SEE NOTE 2 (3)													
47151-1062											SEE NOTE 2 (4)													
47151-2062											SEE NOTE 2 (4)													
47151-1012											SEE NOTE 2 (1)													
47151-1072											SEE NOTE 2 (2)													
47151-1082											SEE NOTE 2 (3)													
47151-1022											BLACK			SEE NOTE 2 (1)										
47151-1032											NATURE			SEE NOTE 2 (1)										
47151-1102	1.45	1.45	M3.0x0.5	16.08	13.38	WITH	WITH	WITH	W/O	BLACK	SEE NOTE 2 (1)	SEE NOTE 2 (a)												
47151-1142										SEE NOTE 2 (2)														
47151-1152										SEE NOTE 2 (3)														
47151-1112										SEE NOTE 2 (1)														
47151-1162										NATURE	SEE NOTE 2 (2)													
47151-1172										SEE NOTE 2 (3)														
47151-1122										BLACK	SEE NOTE 2 (1)													
47151-1132										NATURE	SEE NOTE 2 (1)													
47151-1005										1.80	2.20			4-40	16.08	13.38	WITH	WITH	WITH	W/O	BLACK	SEE NOTE 2 (1)	SEE NOTE 2 (a)	
47151-1045																					SEE NOTE 2 (2)			
47151-1065	SEE NOTE 2 (3)																							
47151-1015	SEE NOTE 2 (1)																							
47151-1035	NATURE	SEE NOTE 2 (2)																						
47151-1055	SEE NOTE 2 (3)																							
47151-1025	SEE NOTE 2 (1)																							
47151-1075	SEE NOTE 2 (2)																							
47151-1085	BLACK	SEE NOTE 2 (3)																						
47151-1026	SEE NOTE 2 (1)																							
47151-6012	1.80	2.20	M3.0x0.5	14.25	11.28	WITH	WITH	WITH	W/O	BLACK	SEE NOTE 2 (1)	SEE NOTE 2 (a)												
47151-6042										SEE NOTE 2 (2)														
47151-6052										SEE NOTE 2 (3)														
47151-6022										SEE NOTE 2 (1)														
47151-6032										SEE NOTE 2 (3)														
47151-6112										SEE NOTE 2 (1)														
47151-6142										1.45	1.45			SEE NOTE 2 (2)										
47151-6152										SEE NOTE 2 (3)														

FOR SHEET 4

<b>SEE SHEET 1</b> EC NO: SH2010-0164 DRWN: XZHUANG 2009/10/20 CH'KD: GLLI 2009/10/21 APPR: XJISONG 2009/11/30 REV:	QUALITY SYMBOLS $F_{\Delta} = 0$ $F_{\nabla} = 0$ $F_{\square} = 0$	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <tr> <td></td> <td>mm</td> <td>INCH</td> </tr> <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>± 0.25</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± 0.25</td> <td>± ---</td> </tr> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± ---	2 PLACES	± 0.25	± ---	1 PLACE	± 0.25	± ---	DIMENSION STYLE <b>MM ONLY</b>	SCALE <b>1:1</b>	DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION
		mm	INCH																		
	4 PLACES	± ---	± ---																		
	3 PLACES	± ---	± ---																		
	2 PLACES	± 0.25	± ---																		
1 PLACE	± 0.25	± ---																			
DRAWN BY: RZHANG CHECKED BY: GRMA APPROVED BY: YTYAP		DATE: 2004/07/20 DATE: 2004/07/20 DATE: 2004/07/20	TITLE <b>1.0 HDMI RIGHT ANGLE HEADER ASSEMBLY(19 PIN) LEAD FREE</b>																		
MATERIAL NO. <b>SEE TABLE</b>		MOLEX INCORPORATED DOCUMENT NO. SD-47151-001																			
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 <b>A3</b>		SHEET NO. <b>8 OF 8</b>																			