

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

**Part Number:** [0687830004](#)  
**Status:** **Active**  
**Overview:** [displayport](#)  
**Description:** DisplayPort\*-to-DisplayPort\* Cable Assembly with Latches, 15.0m (49.21' ) Length, AWG28 Thin

**Documents:**

[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**General**

Product Family Cable Assemblies  
 Series [68783](#)  
 Connector to Connector DisplayPort\* Both Ends  
 Overview [displayport](#)  
 Product Name DisplayPort\*

**Physical**

Cable Length 15.0m (49.21' )  
 Circuits (Loaded) 20  
 Color - Resin Black  
 Gender Male-Male  
 Lock to Mating Part Yes  
 Material - Metal Brass, Stainless Steel  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin ABS Alloy, High Temperature Thermoplastic  
 Packaging Type Bag  
 Pitch - Mating Interface (in) 0.039 In  
 Pitch - Mating Interface (mm) 1.00 mm  
 Plating min: Mating (µin) 32  
 Plating min: Mating (µm) 0.8  
 Plating min: Termination (µin) 80  
 Plating min: Termination (µm) 2  
 Single Ended No  
 Termination Interface: Style Surface Mount  
 Waterproof / Dustproof No  
 Wire Insulation Diameter N/A  
 Wire Size AWG 28  
 Wire/Cable Type Round

**Electrical**

Current - Maximum per Contact 0.5A  
 Impedance 100 ohms  
 Shield Type Full Shield  
 Shielded Yes  
 Voltage - Maximum 40V

**Material Info**

**Reference - Drawing Numbers**

Packaging Specification PK-68783-004  
 Sales Drawing SD-68783-004

\*DisplayPort is a Trademark of VESA



*image - Reference only*

**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC**  
 Not Reviewed  
**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.

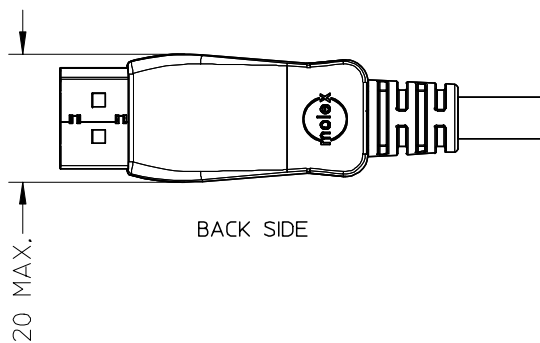
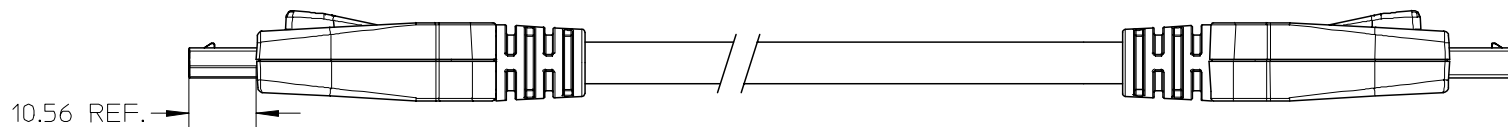
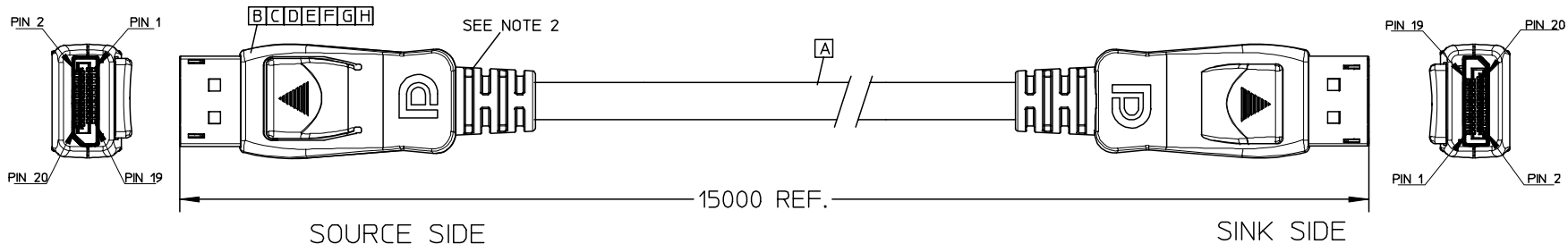
**Search Parts in this Series**

[68783Series](#)

**Mates With**

[47272 DisplayPort\\* Receptacle](#)

**PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION**



H	COVER-UP WITH LATCH	47271-0004		2
G	COVER-DOWN	47271-0005		2
F	LATCH 2	47271-2006		2
E	LATCH 1	47271-1006		2
D	INNER-SHELL-LOWER	47271-1009		2
C	INNER-SHELL-UPPER WITH LATCH	47271-1008		2
B	PLUG SUB-ASSY CONN.	47271-0011		2
A	AWG28 CABLE OD=6.8mm		15M ref.	1
ITEM	DESCRIPTION		LENGTH	QTY.

ENTER DESCRIPTION EC NO: DG2007-0075 DRWN: JLIU13 CHKD: BLAU APPR: BLAU	QUALITY SYMBOLS  	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
			mm	INCH	MM ONLY	---		METRIC
		4 PLACES	±---	±---	DRAWN BY	DATE		TITLE
		3 PLACES	±---	±---	JLIU13	2006/11/28		AWG28 15M CABLE ASS'Y
2 PLACES	±---	±---	CHECKED BY	DATE				
1 PLACE	±---	±---	BLAU	2006/11/28				
		ANGULAR ±---°	APPROVED BY	DATE				
			BLAU	2006/11/28				
			MATERIAL NO.	DOCUMENT NO.				
			68783-0004	SD-68783-004				
			SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
			A/4					

WIRE DIAGRAM:

SHELL		OVERALL BRAID	SHELL	
PIN 20	PWR	GREEN	PIN 20	PWR
PIN 19	Re-PWR	ORANGE	PIN 19	Re-PWR
PIN 18	HPD	YELLOW	PIN 18	HPD
PIN 17	AUX(n)	WHITE	PIN 17	AUX(n)
PIN 16	GND		PIN 16	GND
PIN 15	AUX(p)	WHITE	PIN 15	AUX(p)
PIN 14	GND	RED	PIN 14	GND
PIN 13	GND	BROWN	PIN 13	GND
PIN 12	ML3(n)	WHITE	PIN 1	ML3(n)
PIN 11	GND	DRAIN	PIN 2	GND
PIN 10	ML3(p)	WHITE	PIN 3	ML3(p)
PIN 9	ML2(n)	WHITE	PIN 4	ML2(n)
PIN 8	GND		PIN 5	GND
PIN 7	ML2(p)	WHITE	PIN 6	ML2(p)
PIN 6	ML1(n)	WHITE	PIN 7	ML1(n)
PIN 5	GND	DRAIN	PIN 8	GND
PIN 4	ML1(p)	WHITE	PIN 9	ML1(p)
PIN 3	ML0(n)	WHITE	PIN 10	ML0(n)
PIN 2	GND	DRAIN	PIN 11	GND
PIN 1	ML0(p)	WHITE	PIN 12	ML0(p)
SOURCE SIDE	Pin Description	WIRE COLOR	SINK SIDE	Pin Description

- NOTE:  
 1. THE PRODUCT MUST MEET RoHS COMPLIANCE.  
 2. THE STRAIN RELIEF SHALL BE MOLD WITH BLACK PVC .

3. ELECTRICAL PERFORMANCE:

DIELECTRIC STRENGTH: TEST VOLTAGE 300±30V DC FOR 0.01S NO BREAKDOWN  
 INSULATION RESISTANCE: BETWEEN ADJACENT CONTACTS AND CONTACTS  
 TEST VOLTAGE 300±30V DC FOR 0.01S 20M ohms (min).

- ▽ DIFFERENTIAL IMPEDANCE: 100+/-10 FOR TERMINATION AREA  
 100+/-5 FOR CABLE AREA
- ▽ INTRA PAIR SKEW: 250ps MAX.
- ▽ INSERTION LOSS: f is given in GHz, f=0.825GHz

$$L_{in} [dB] = \begin{cases} 3 - 10\sqrt{\frac{f}{f_0}} & ; 0.01 < f < \frac{f_0}{3} \\ -12 \times \left( \frac{3f}{f_0} - \frac{f_0}{3} \right) & ; \frac{f_0}{3} < f < 2f_0 \end{cases}$$

- ▽ RETURN LOSS: f is given in GHz, f=0.8GHz

$$RL_{min} [dB] = \begin{cases} 15 & ; f < f_0 \\ 15 + 13 \times \log_{10} \left( \frac{f}{f_0} \times 1.25 \right) & ; f_0 < f < 2f_0 \\ -5 + 13.56 \times \log_{10} \left( \frac{f}{f_0} \times 0.625 \right) & ; 2f_0 < f < 4f_0 \end{cases}$$

- ▽ NEAR END CROSSTALK: f is given in GHz, f=0.8GHz

$$Isolation_{near} [dB] = \begin{cases} 26 & ; 0 < f < f_0 \\ -26 - 15 \log_{10} \left( \frac{f}{f_0} \right) & ; f_0 < f < 7f_0 \end{cases}$$

- ▽ FAR END CROSSTALK: <-26dB(100MHz~7GHz),  
 THE FAR END NOISE SHALL BE DEFINED IN FREQUENCY DOMAIN.

ENTER DESCRIPTION EC NO: DG2007-0075 DRWN: JLIU13 CHKD: BLAU APPR: BLAU	DESCRIPTION REV	QUALITY SYMBOLS ▽=0 ▽=6	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
					MM ONLY	---	METRIC			
			4 PLACES ±---	±---	DRAWN BY	DATE	TITLE			
			3 PLACES ±---	±---	JLIU13	2006/11/28	AWG28 15M CABLE ASS'Y			
2 PLACES ±---	±---	CHECKED BY	DATE	MOLEX MOLEX INCORPORATED						
1 PLACE ±---	±---	BLAU	2006/11/28							
ANGULAR ±---°		APPROVED BY	DATE	MATERIAL NO.	DOCUMENT NO.	SHEET NO.				
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		BLAU	2006/11/28	68783-0004	SD-68783-004	2 OF 2				
		SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							
		A4								