

DVI AOC Manual



Description

SDVC-8700 product is a hybrid cable , DVI active optical cable (AOC) with high performance , low power consumption and low cost Using optical fiber , to replace copper wire as the high-speed signal transmission medium , DVI AOC can perfectly transmit HD image over 100 meters. Compared with. the traditional copper wire, DVI AOC is much longer, softer , more slim with better signal quality and perfect EMI / EMC feature . Compared with other, HDMI optical fiber transmission solution, DVI AOC is easy to use, no external power supply needed .

Key Features

1. Long distance transmission, over 100 meters;
2. Single channel DVI interface, support up to 10.2Gbps bandwidth;
3. Program and store monitor' s EDID information inside of source connector ;
4. Thinner, lighter and softer than conventional copper cable ;
5. No radiation, and highly resistant with EMI;
6. Supports computer resolutions to 1080P and 4K2K(30P) ;
7. Request no external USB power supply .

Specifications

1. Absolute Maximum Ratings

Parameter	Symbol	Min.	Typ.	Max	Unit
Supply Voltage	VCC	-0.5		6	V
Storage Temperature	Tstg	-20		70	℃
Relative Humidity	RH	5		85	%
Electrostatic Discharge Immunity (Air:8kV ,Contact:6kV)		B			Class

2. Recommended Characteristics

Parameter	Symbol	Min.	Typ.	Max	Unit
Supply Voltage	VCC	4.8	5	5.3	V
Operating Temperature	T _{op}	0		50	℃

3. Electrical Characteristics

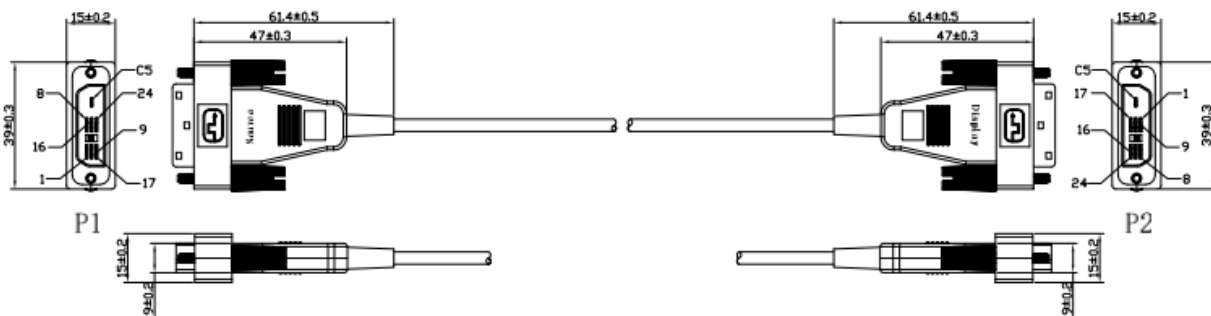
Parameter	Symbol	Min.	Typ.	Max	Unit
Operating Current	I_{op}	35	50	56	mA
Power Consumption	P_o	0.18	0.25	0.28	W
TMDS Differential Input Voltage	V_{ID}	400		1600	mV
TMDS Differential Output Voltage	V_{OD}	200	300	400	mV
TMDS Data Bit Rate		250		1650	Mbps

4. Physical Characteristics

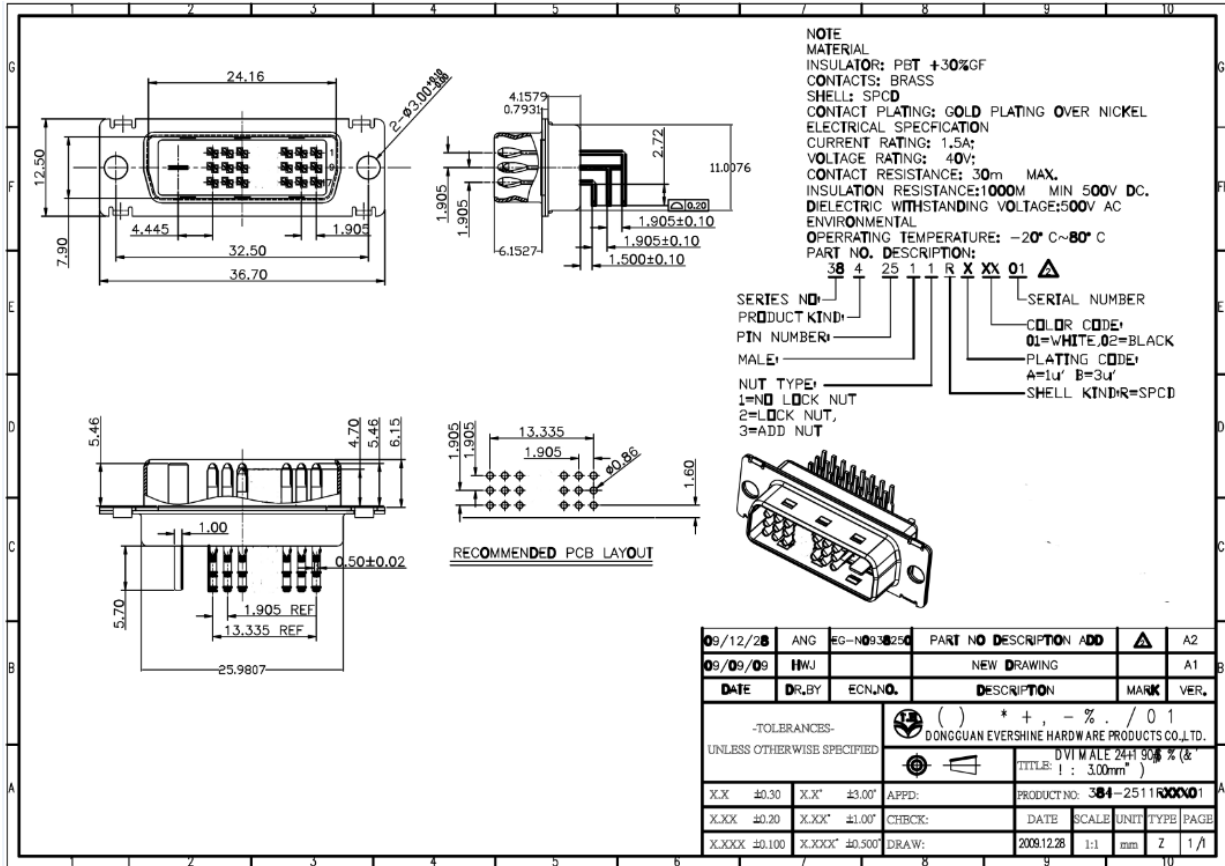
Parameter	Value	Unit
Cable Dimensions(WXH)	4.0mm(\pm 0.2mm)	mm
Cable Color	Black	-
Optical Fiber	Multi-mode fiber	um
Copper Wire	28AWG (7/0.127mm)	-
Cable Material	PVC	-
Connector Pull Strength	15	Kg
Compression Load Resistance	50	Kg
Minimum Bending Radius	40	mm
Case Material	Zinc Alloy Metal	

5. DVI Pin Description

PIN	Symbol	Functional description	PIN	Symbol	Functional description
1	Date2-	Data channel 2 negative	13	-	N.C.
2	Date2+	Data channel 2 positive	14	+5V	DC+5V
3	Data2 shield	Data channel 2 shield	15	GND	GND
4	-	N.C.	16	HPD	Hot plug detector
5	-	N.C.	17	Data0-	Data channel 0 negative
6	SCL	DDC clock	18	Data0+	Data channel 0 positive
7	SDA	DDC data	19	Data0/5 shield	Data channel 0 shield
8	-	N.C.	20	-	N.C.
9	Data1-	Data channel 1 negative	21		N.C.
10	Data1+	Data channel 1 positive	22	Clock shield	Clock shield
11	Data1 shield	Data channel 1 shield	23	Clock +	Clock channel positive
12	-	N.C.	24	Clock -	Clock channel negative



DVI Connector



DVI Connector Drawing

Applications

1. Digital Signage , Security systems ,Home Theater ;
2. Conference Room Video Equipment;
3. LED signboards in streets and in stadiums ; TV Broadcast Station;
4. Medical Imaging Equipment ,Airplane On-board Video System;
5. Blue-ray, 3D video, Projector, Set-up box, DVR, Game Consoles and Computer .