

# DVI to PC Converter ID# 662



**Operation Manual**

## Introduction

Converts a DVI-D Digital signal input to Analog PC/RGB or HD YPbPr output. It enables you to connect a digital DVI source to an analog PC monitor, projector or TV. Its high bandwidth capability supports a wide range of PC and HDTV resolutions. Can be used easily for Professional and Private applications.

The unit is extremely small and easy to set up. Connect the DVI-D input port to the DVI output port of your device such as a DVD player or set top box. Then connect the output port to the PC/YPbPr input of your device such as an analog PC monitor, projector or TV.

The unit has a switch which lets you select the correct output. Set the switch to RGB when your DVI source device is a PC graphics card or other digital RGB source signal. Set the switch to YPbPr when your DVI source device is a DVD player, set-top box, or any other high definition digital video source.

## Features

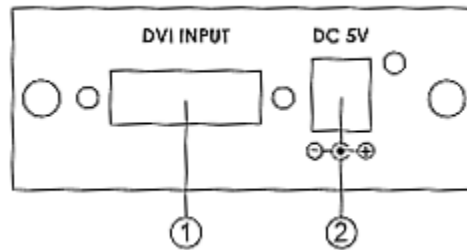
- Supports DVI-D input and Analog PC/RGB or HD YPbPr output.
- Supports output selection between YPbPr and RGB.
- Supports input/output resolution as below:
  - PC:** 640x480= VGA59 , VGA60, VGA72, VGA75, VGA85
  - 800x600=** SVGA56, SVGA60, SVGA72, SVGA75, SVGA85
  - 1024x768=** XGA60, XGA70, XGA75, XGA85
  - 1152x864=**MAC70, MAC75, MAC85
  - 1280x1024=** SXGA60, SXGA75, SXGA85,
  - 1600x1200=** UXGA60
  - 1920x1200=** WUXGA60(pixel-rate=154MHz)
  - HD:** 480i60, 576i50, 480P60, 576P50, 720P60, 720P50, 1080i60, 1080i50, 1080P30, 1080P60, 1080P50

### Note:

1. Due to the IC didn't support Tri-level synchronies output. So component output at 720p/1080i/1080p, the image will shift to the left side of the screen.
  2. If DVI source includes HDCP(High-bandwidth Digital Content Protection), DVI display should not support HDCP decryption.
- Built-in EDID.

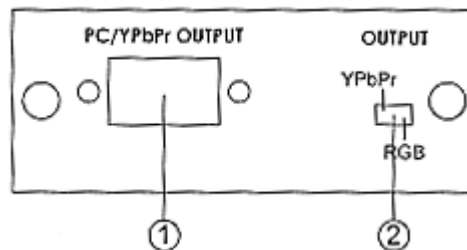
## Operation Controls and Functions

### Front Panel



1. DVI input: Connect the DVI-D input port to the DVI output port of your source equipment such as DVD player or set-top-box. It supports only DVI-D signal via a DVI-1 connector.
2. Power: Plug the 5VDC power supply into the unit and connect the adaptor to AC wall outlet.

### Rear Panel

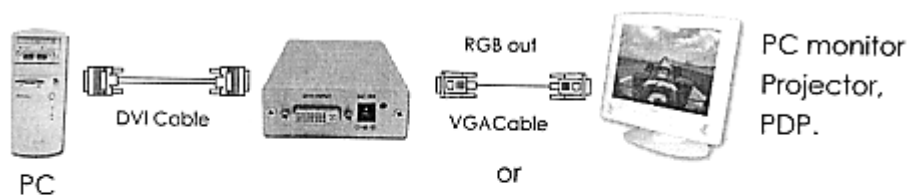


1. HD-15 D-Sub output: Connect the output port to the PC/YPbPr input of analog PC monitor, Projector or TV.
2. YPbPr/RGB switch:  
Set the switch to RGB when your DVI source equipment is PC graphic card or other digital RGB source signal. Use HD-15 to HD-15 VGA cable to connect between the unit's RGB out and the RGB input of your PC monitor, or projector. Set the switch to YPbPr when your DVI source equipment is DVD player, set-top-box or other High definition digital video source. Use a VGA to 3 RCA adaptor cable to connect the unit's YPbPr out to the YPbPr input connector of your HDTV.

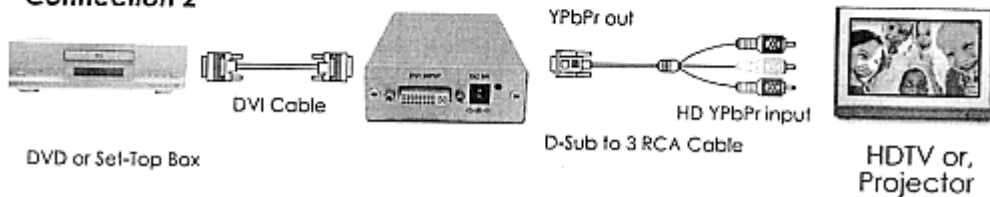
**Note:** When YPbPr output from HD-15 D-Sub the H-pin and V-pin will remain the signal at the same time.

## Connection and Installation

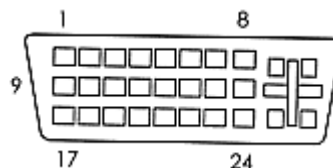
### Connection 1



### Connection 2

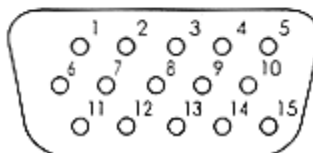


## Pin Configuration



### A. DVI input Pin Assignment.

| Pin# | Function    | Pin# | Function    | Pin# | Function     |
|------|-------------|------|-------------|------|--------------|
| 1    | TMDS D2-    | 9    | TMDS D1-    | 17   | TMDS D0-     |
| 2    | TMDS D2+    | 10   | TMDS D1+    | 18   | TMDS D0+     |
| 3    | TMDS D2 SHD | 11   | TMDS D1 SHD | 19   | TMDS D0 SHD  |
| 4    | N.C.        | 12   | N.C.        | 20   | N.C.         |
| 5    | N.C.        | 13   | N.C.        | 21   | N.C.         |
| 6    | DDC CLOCK   | 14   | POWER +5V   | 22   | TMDS CLK SHD |
| 7    | DDC DATA    | 15   | GND(DDC)    | 23   | TMDS CLK+    |
| 8    | RESERVED    | 16   | H.P. DETECT | 24   | TMDS CLK-    |



## Specifications

### B. Analog VGA output pin assignment when output switch set to RGB.

| Part No. | Pin No. | Description (PC out) |
|----------|---------|----------------------|
| DB15HD   | 1       | RED                  |
|          | 2       | GREEN                |
|          | 3       | BLUE                 |
|          | 4       | GND                  |
|          | 5       | GND (DDC-RETURN)     |
|          | 6       | GND-RED              |
|          | 7       | GND-GREEN            |
|          | 8       | GND-BLUE             |
|          | 9       | N.C                  |
|          | 10      | GND-SYNC             |
|          | 11      | GND                  |
|          | 12      | DDC-DATA             |
|          | 13      | H-SYNC               |
|          | 14      | V-SYNC               |
|          | 15      | DDC-CLOCK            |

### C. Analog VGA output pin assignment when output switch set to YPbPr.

| Part No. | Pin No. | Description (HD out) |
|----------|---------|----------------------|
| DB15HD   | 1       | Pr                   |
|          | 2       | Y                    |
|          | 3       | Pb                   |
|          | 4       | GND                  |
|          | 5       | GND (DDC-RETURN)     |
|          | 6       | GND-Pr               |
|          | 7       | GND-Y                |
|          | 8       | GND-Pb               |
|          | 9       | N.C                  |
|          | 10      | GND-SYNC             |
|          | 11      | GND                  |
|          | 12      | DDC-DATA             |
|          | 13      | H-SYNC               |
|          | 14      | V-SYNC               |
|          | 15      | DDC-CLOCK            |

|                                |  |
|--------------------------------|--|
| <b>Operation frequency</b>     | Up to 165MHz   |
| <b>Input port</b>              | 1 x DVI (only DVI-D supported)   |
| <b>Input signal</b>            | Digital RGB or YPbPr bistream  |
| <b>Output port</b>             | 1 x HD-15 D-Sub (RGBHV or YPbPr)   |
| <b>Output signal</b>           | <b>RGB:</b> 0.7Vp-p 75ohm<br><b>H+V:</b> 3 to 5 Vp-p<br>Or <b>Y:</b> 1 Vp-p 75ohm<br><b>PB/Pr:</b> 0.7 Vp-p 75ohm  |
| <b>Input/Output resolution</b> | <b>PC:</b> 640x480= VGA59 , VGA60, VGA72, VGA75, VGA85<br><b>800x600</b> = SVGA56, SVGA60, SVGA72, SVGA75, SVGA85<br><b>1024x768</b> = XGA60, XGA70, XGA75, XGA85<br><b>1152x864</b> =MAC70, MAC75, MAC85<br><b>1280x1024</b> = SXGA60, SXGA75, SXGA85,<br><b>1600x1200</b> = UXGA60<br><b>1920x1200</b> = WUXGA60 (pixel-rate = 154MHz)<br><b>HD:</b> 480P60, 576P50, 480P60, 576P50, 720P60, 720P50, 1080P60, 1080P50, 1080P30, 1080P60, 1080P50 |
| <b>Power Supply</b>            | 5V/2A DC (US/EU standards, CE/FCC/UL certified)  |
| <b>Dimensions (mm)</b>         | 76(W) x 30(D) x 92(H)  |
| <b>Weight(g)</b>               | 182  |
| <b>Chassis Material</b>        | Aluminum   |
| <b>Silk Skin Color</b>         | Silver   |
| <b>Operating Temperature</b>   | Operating from 0°C - 40°C  |