

TKDMR TV-160 Generation of LVDS Turn VGA Converter With The Display LCD/LED TV Motherboard Tester Mainboard Tool

Manual of Sixth-Generation LVDS-VGA Converter (Attached with device)

Thanks for choosing Sixth-Generation LVDS-VGA Converter (Display screen version)

developed by TD Please read this manual carefully before using. During LCTV

maintenance and production, the mainboard is required to be connected to a screen for testing;

however, due to miscellaneous mainboard specifications, various screens are required for

maintenance or production. In this case, this converted is developed to reduce the pressure of

manually installed screen and prevent the screen damage caused by the output signal of mainboard

fault which leads to tremendous loss. Taking this into consideration, this converter is able to

display LVDS from the mainboard directly or convert it into VGA for output. Besides, it is able to

be connected to a displayscreen for maintenance and commissioning.

To test the motherboard than 32 LVDS signals, comes with display. After the host first powered on, and then use the original machine screen line, then the corresponding adapter plate, in the case of a short circuit board did not give the board power adapter plate lights, and then inserted into the adapter plate converter on the host, this time will be able to host the display shows the image output board.

I. Characteristics of this conversion board

1. Furnished with 4.3" display screen, it is able to display LVDS image directly from the mainboard, supporting external VGA.
2. It supports LVDS signal with various resolution ratios (60Hz, 120Hz and 240Hz) of single or dual shielded wire.
3. It outputs uniform VGA signal (1280*720/60HZ) which is able to be connected to various display, supporting CRT, liquid crystal and TV display (favorable compatibility).
4. The input interface features anti-static design with better anti-static capacity.
5. Convenient conversion among various LVDS formats.
6. Wide power input design, with 5V-12V adapter.

II. Packing list and standard accessories

Note standard accessories only include two normal shielded wire conversion boards, one for two-interface with high definition and other for four-interface with standard definition. These

two conversion boards are compatible with most shielded wires on the market. Additional FFC, special sanxing interface and another three mainboards are optional as shown below:

III. Select a conversion board (Please log in <http://www.aliexpress.com/store/1937268> to inquire and purchase)

Note these three shielded wire conversion boards are not standard accessories, but they can be purchased. The difference is that sanxing standard-definition conversion board with two interfaces is thicker than the interface of configured standard-definition conversion board. The other two FFC interfaces aim at conversion board with partial screen body being customized with FFC interface. They have the same sequences with two standard conversion boards, but the interface is FFC. The usage is shown at the back of manual.

IV. Functions about host of converter

Description of input mode conversion

Definition of LVDS input interface

Description of input mode conversion

This converter supports complete LVDS formats and supports conversion of various resolution ratio input (6bit, 8bit, 10bit) into VGA signal (1280*720/60HZ), with favorable compatibility with various displays. Conversion of LVDS signal formats is realized by pressing the mode button circularly.

Parameter table of resolution and format of converter

No. Resolution LVDS format No. Resolution LVDS format

1 800*600 VASA, JEIDA 8 1280*720 VASA, JEIDA

2 1024*600 VASA, JEIDA 9 1600*900 VASA, JEIDA

3 1280*800 VASA, JEIDA 10 1400*1050 VASA, JEIDA

4 1280*1024 VASA, JEIDA 11 1680*1050 VASA, JEIDA

5 1366*768 VASA, JEIDA 12 1600*1200 VASA, JEIDA

6 1024*768 VASA, JEIDA 13 1920*1200 VASA, JEIDA

7 1440*900 VASA, JEIDA 14 1920*1080 VASA, JEIDA

1. It is prohibited to insert a shielded wire conversion board into a converter first. Instead, it should be connected to a TV mainboard directly before switching on the TV mainboard. This

operation easily leads to shielded wire insertion fault and component damage. Please operate it based on the following steps

2. Do not insert a shielded wire into a converter first. Instead, please insert the original shielded wire of a TV mainboard into the converter. During insertion, LVDS signal wire sequence should be aligned. After switching on the TV mainboard, the small board indicator light is on, indicating that the termination of the shielded wire (wire sequence) is correct. Then insert the converter. It is prohibited to insert the converter inside if the small indicator light is off; otherwise, the converter might be damaged caused by the screen power supply entering LVDS input pin.

3. Generally, the single-route LVDS signal is able to be connected 0~3 (connection of group wire 4 is not necessary) in Group A and clock input by selecting LVDS wire. It is possible to connect 5 pairs of LVDS wire input. LVDS signal of Group A is able to support the resolution ratio up to 1366*768. LVDS with two- or four-route is able to be connected to this group only.

4. The LVDS input rule of this converter follows PCB wiring rule of LCD TV produced by Skyworth, which conforms to standard of LVDS format in the industry of color TV.

5. This converter adopts wide power supply at 5V-12V (1A) and supports portable power source at

5V/1A, so its convenient to carry for test.

6. Attention: LVDS input end of this converter should not have the screen power connected to any

pin of the LVDS input end; otherwise, it might damage the main chip of the converter. The main chip damage incurred by this falls beyond the guarantee scope.

V. Schematic diagram of converter connection

Manual of Shielded Wire Conversion Board of Sixth-Generation LVDS-VGA Converter

During mainboard maintenance or commissioning, the original TV shielded wire might not match this LVDS-VGA converter input interface. This issue is able to be solved by the shielded wire conversion board. The high definition interface of the shielded conversion board adopts original imported interface, featuring long service life. The conversion board is sold as an accessory of the LVDS-VGA converter. Refer to the following drawing description for the shielded wire conversion board.

Diagram of usage of shielded wire conversion board

Step 1 Do not insert the conversion board into the converter. Instead, insert the original shielded wire of TV mainboard into the corresponding shielded wire interface in the conversion board.

Note: the corresponding interface is based on the twisted-pair position of the shielded wire and the

position of small board LVDS paired wire, i.e. insert it correspondingly. Different shielded wire should be inserted into different interfaces.

Step 2 Use one hand to press LVDS flat socket tightly and use the other to clench both ends of the

shielded wire to insert it in. The figure above is the high definition shielded wire interface. The standard definition shielded wire interface follow the such insertion method. (Note: operation of five small boards are basically identical. During connection, attention should be paid to the wire sequence. Align the power supply before aligning the twisted-pair LVDS wire of a shielded wire and the paired signal wire of a small board.)

Step 3 Supply power to the TV mainboard. With a correct connection of a shielded wire, the indicator on

the small conversion board will be on; otherwise, it means connection of the shielded wire is incorrect or the mainboard is not switched on. (Note: please inspect whether the mainboard screen

power supply (5 V/12 V) enters the right output pin; if it is, it will lead to a converter damage.

About an unfamiliar mainboard, a multi-meter should be used to inspect whether the contact pin enters the screen power supply 5V/12V)

Step 4 It is able to be inserted (its front faces upwards) into the input base of LVDS ?VGA only if the

indicator on the shielded wire converter is on.

Step 5 After connection, if the mainboard of TV is normal, the display or external display on converter

will display the image of mainboard of TV.

If there is no image, check if the shielded wire is connected well or if any damage of mainboard.

In case of a blurred image, press the mode conversion button repeatedly to convert to various modes till the image is normal.

To facilitate the mainboard testing on site, a portable power source is able to be used to supply

power to the converter. It is actually measured that Mi 10400 power (portable power from other brand is able to be selected) is able to supply power to this converter for 15 hours, fully conforming to testing requirements

Precautions of using converter

1. Please follow aforementioned operations strictly.
2. Firstly connect a mainboard with the shielded wire conversion board, with attention paid to the wire sequence. Then switch on the TV mainboard, if the indicator on the shielded conversion board is on, it means connection between the mainboard and the shielded wire board is correct; otherwise, it should be re-inspected
3. With correct connection between the shielded wire conversion board and the mainboard, insert the shielded wire conversion board (front faces upwards) into the LVDS converter (refer to the figure above) before putting the TV mainboard and the converter to switching on status.
4. In case of a blurred image, press the mode conversion button repeatedly to convert to various modes till the image is normal.
5. This converter supports various LVDS formats (60Hz, 120Hz and 240Hz). About a mainboard with two shielded wire, one wire alone is required to be connected to the high definition conversion board instead of both wires. Besides, it is able to convert required image.
6. Please follow aforementioned operations strictly!

Accessories

Standard accessories include two conversion boards, one for two-interface with high definition and other for four-interface with standard definition. These two conversion boards are compatible with interface of 32and 58 display screen.