



## PATTERN ANALYZER MODEL A222917

Chroma A222917 is a multi-functional PCBA main board signal test device for display. It has ultra high speed LVDS (Low-voltage differential signaling) as image signal analysis core to provide high efficiency and stability test quality. It can form a PCBA automatic test system when integrated with the newest generation of Chroma 22XX Series Video Pattern Generator (\*1) that can meet the requirements for testing the PCBA main boards automatically in present and future multi-media display industries.

The A222917 Pattern Analyzer supports various audio and video automatic testing functions for PCBA production line. The features include:

High speed LVDS video pattern standard format signal analysis interface that supports VESA and JEIDA standard with 6 / 8 / 10 color depth testing selection. The LVDS signal frequency supports up to 270MHz in Dual link mode and is able to output simultaneously during analysis so that the user can connect the panel to do screen inspection.

### LVDS timing analysis

Timing analysis can be done via various detail parameters including pixel rate, horizontal and vertical timing, which can be used easily to judge if the LVDS transmission channel is correct.

### Image comparison

It replaces the traditional artificial screen inspection with high speed image comparison core to do a series of comparison on each frame. The user can set the frame numbers and maximum 32 comparing blocks in each frame for comparison. It can also mark the error coordinates and inspection values for follow-up fixing latter.

### Audio signal test

It has digital/analog audio signal amplitude and frequency test capability for the production line to test the audio signal interface function rapidly.

### Digital control interface

It has 16 channels of bidirectional digital control interface and is able to set 3.3V or 5V interface voltage for automatic testing control or warning.

### Voltage measurement module

Equipped with LVDS Vdd voltage and 8 DC voltage measurement modules, A222917 is able to measure the voltage for PCBA test points.

To achieve automated test application for PCBA production line, the A222917 Pattern Analyzer replaces the traditional screen inspection with automatic signal inspection device by programming the complex PCBA test procedures via software. Only one button is required for the actual production line inspection to complete related tests automatically. It saves the test time greatly and improve the test accuracy.

The A222917 has graphical test program editing software that gives the user an easy and fast way to manage and edit the test programs with the actual test items performed in production line. The easy-to-use operating interface and complete test functions are most applicable for all video and related industries when doing research and development, production test and quality assurance.

(\*1) Models supported:  
22293/22293-A/22293-B/22294  
2233/2233-A/2233-B/2234

## Pattern Analyzer

### MODEL A222917

#### Key Features:

- TV / Monitor PCBA test system
- VESA / JEIDA data mapping
- LVDS 2 channel input / output
- LVDS 6 / 8 / 10 bits
- LVDS pixel rate
  - 1 Link up to 135MHz
  - 2 Link up to 270MHz
  - 4 Link up to 540MHz (A222917 x 2)
- Timing / pattern / audio compare
- LVDS Vdd measurement
- DC voltage measurement
- PWM frequency / duty cycle measurement
- Bidirectional digital control
- Speaker / headphone audio input
- Optical / Coaxial audio input (SPDIF)
- EDID / HDCP test (with VPG)
- IR transceiver control (Option)
- ESD protection
- Modular design
- High Cost-performance value



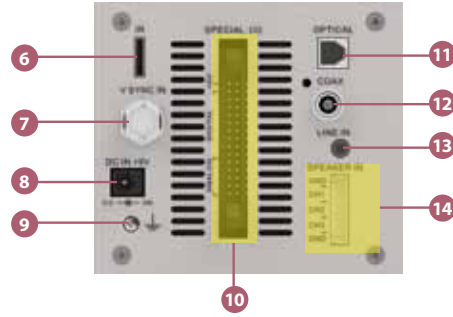
**Chroma**

## PANEL DESCRIPTIONS

Front View

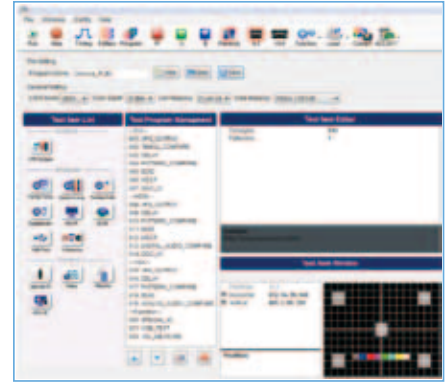


Rear View



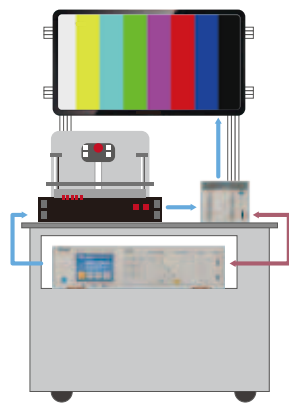
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|-------------------------------|---|---|
| 1. LVDS output                | 8. DC power input   | 12. Digital audio input (Coaxial, LPCM) |
| 2. LVDS input                 | 9. Grounding screw  | 13. Analog audio input (Headphone)      |
| 3. Power switch               | 10. Special I/O (Analog input x8, Digital input/output x16) | 14. Analog audio input (Speaker)        |
| 4. Guiding light              | 11. Digital audio input (Optical, LPCM)                     |   |
| 5. SMART I/O (Connect to VPG) |   |   |
| 6. IR transceiver connector   |   |   |
| 7. Vertical sync input        |   |   |

## SOFTWARE



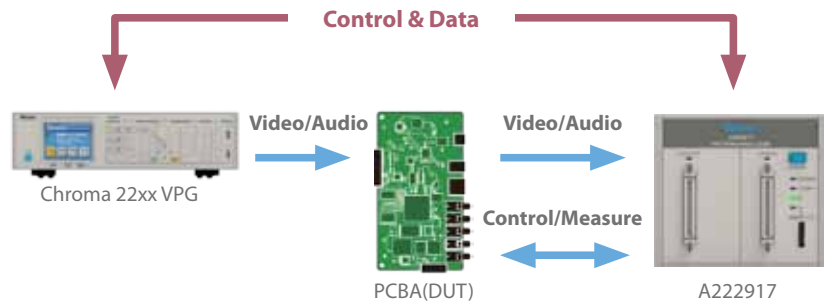
User friendly test program editor

## CONFIGURATION



### Chroma PCBA test system

- Fully Automation
- High Throughput
- Objective Testing
- 100% Reliable



## SPECIFICATION

LVDS In/Out	
Signal format	VESA / JEIDA
Color depth	6 / 8 / 10 bits
Link mode	1 link up to 135 MHz / 2 link up to 270MHz
Audio input	
Channel	2 Ch(LINE/COAX/OPTICAL) / 3 Ch(SPEAKER)
Amplitude	0 ~ 4 Vp-p(LINE) / 0 ~ 40 Vp-p(SPEAKER)
Frequency	20 Hz ~ 20 KHz
Digital I/O	
Voltage range	3.3V / 5V Selectable (Bidirectional)
DC voltage measurement	
Voltage range	0 ~ 20V

Connector	
LVDS	MDR 50 pin x 2
S/PDIF Input	Optical x1 / Coaxial x 1
Line in	Headphone Jack x 1
Speaker in	8 pin 2.5mm header x 1
Other	
DC Input	9V/2A (With Chroma adapter only)
Temperature (Operation/Storage)	+5~+40 deg.C / -20~+60 deg.C
Humidity	20 ~ 90%
Dimension & Weight	
A222917	88X100X200 mm / 3.46X3.94X7.87 inch (H x W x D) 1 kg / 2.2 lbs

\* All specifications are subject to change without notice.

\* All other brand and logo are trademarks or registered trademarks of their respective holders.

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