Portable LCD/LED Panel Tester

SMART TESTER // MODEL Name : CF-L102

Where LCD/LED panels are assembled, e.g., TVs, monitors, and Notebook PC etc., may frequently encounter problems with these panels even if no problem was found in the manufacturing and final inspection stages of the panels. These problems could lead to waste of time, extra cost, additional inspections, decreasing productivity.

Smart Tester(Model CF-L102) provides reliable Panel Testing Services for its worldwide customers – Panel repair centers, Panel makers, Panel monitor&TV makers, Panel distributors etc.

Specially, Smart Tester could help you for testing "panels" promptly , which are positioned on WI (Warrnaty in), OOW (out of warranty),CID(customer induced defects), etc.

★ Smart Tester is directly connected to and checks LCD panels of final products.

Resolvers Various Panel Matching Issues through RS-232 communications with PC control programs

*. KEY FEATURES

- **Can test LCD panels of up to 55 inches without additional power supply.[55,50,42,32,26,19,17,15,12.1,10-inch]**
- **1/2/4/Channel out. Can control LVDS levels of up to 16 steps.**
- **Panel Ranges Supported : Max . 1920 * 1200**
- **Can support a wide range of interfaces, e.g., LVDS, eDP, DP, TTL(as option).**
- **Can Support e-DP Panel's testing.**
- **Simple & Auto Pattern (F1 ~ F10 Button)**
- **Controls all items including LCD sequence by customized and upgradable software that is installed in PCs.**
  (Allows stand-alone operation with pre-installed software)
- **Can control backlight and speed spectrum.**

*. General Specification

	Output Socket		Description
1	Signal output	LVDS	• **Single, Dual, Quad / 6bit~10bit** • **EDID SDA,SCL** • **Signal Level Control : 150mV ~ 1180mV (16 step)**
		eDP	• **1LANE , 2LANE , 4LANE / 6bit ~ 8bit** • **AUX Channel**
2	Backlight control output	LVDS	- **Vbr-A : DC 0V ~3.3V** - **Vbr-B : DC 0V ~3.3V or PWM(0%~100%, 85Hz~500Hz)** - **BL on/off : DC 0V~5V** - **Status**
		eDP	- **BL on/off : DC 0V~5V** - **PWM(0%~100%, 170Hz~1000Hz)**

3	LCM VDD output	• Variable between 0V and 22V • Operating in LED VCC in eDP.
4	VCC output	• 2-port , 0 or 3.3V , LCM VDD in eDP.
5	24V output	• 24V 15A output • Built-in power supply available for up to 55-inch panels
6	12V output	• 12V 3A Output • 12V output for monitor LCM with an external inverter

*. LCD Panel Range

LCD	Resolution
VGA	640 X 480
SVGA	800 X 600
XGA	1024 X 768
WXGA	1280 X 768
WXGA - Wide	1366 X 768
SXGA - Dual	1280 X 1024
SXGA - P	1440 X 1050
SXGA - Wide	1440 X 900
UXGA	1600 X 1024
UXGA - Dual	1600 X 1200
WUXGA –P(Full HD)	1920 X 1080
WUXGA	1920 X 1200

*. Smart Tester Description

1. Front Buttons

- ① **Function (Select Preset Mode by Function Button)**
- ② **◄ ► Button (Input Source Select)**
- ③ **FORMAT (Select or Cancel Internal Pattern Mode)**
- ④ **SOURCE (EDID Write)**
- ⑤ **Pattern (CF Card Pattern Select)**
- ⑥ **OK (Select or Cancel Internal Pattern Auto Play)**
- ⑦ **Output (EDID Write -> Input Signal Calibration)**

2. SIDE VIEW

- ① **Voltage Control & Display**
  VLCD PWR ; LVDS Panel
  VLED PWR : eDP Panel

- ② **12V Fixed Output for External Inverter PWR**
- ③ **24 V Fixed Output for LVDS Internal Inverter PWR**
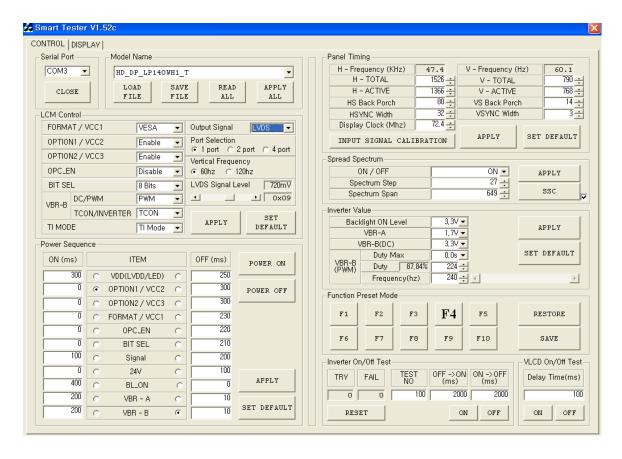- ④ **Sub Board & Signal Interface Slot**

3. Rear View

- ① RS-232 terminal
- ② Input terminals
- ③ CF CARD terminal
- ④ Remote Control terminal
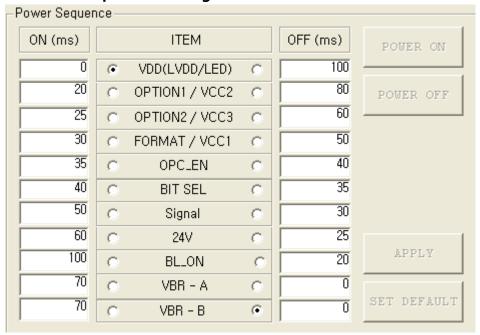- ⑤ USB terminal
- ⑥ AC Input terminal

*. PC Management Software

-. Control Tab Captured Screen

-. Panel Timing Setting

Panel Timing				
H – Frequency (KHz)	47.4	V – Frequency (Hz)	60.1
H – TOTAL	1526	V – TOTAL	790
H – ACTIVE	1366	V – ACTIVE	768
HS Back Porch	80	VS Back Porch	14
HSYNC Width	32	VSYNC Width	3
Display Clock (Mhz)	72,4		
INPUT SIGNAL CALIBRATION		APPLY	SET DEFAULT

-. Power Sequence Setting

ON (ms)	ITEM	OFF (ms)	
0	⊙ VDD(LVDD/LED) ○	100	POWER ON
20	○ OPTION1 / VCC2 ○	80	POWER OFF
25	○ OPTION2 / VCC3 ○	60	
30	○ FORMAT / VCC1 ○	50	
35	○ OPC_EN ○	40	
40	○ BIT SEL ○	35	
50	○ Signal ○	30	
60	○ 24V ○	25	
100	○ BL_ON ○	20	APPLY
70	○ VBR – A ○	0	
70	○ VBR – B ⊙	0	SET DEFAULT

*. Smart Tester Composed List

Model		Component
Smart Tester ~ Built in 400w power supply.		MAIN SYSTEM
		LVDS Output Card
		e-DP Output Card
		e-DP Cable
	Accessory	Serial Cable
		serial to USB Cable
		AC POWER CORD
		RGB CABLE
		INVERTER CABEL(14pin)
		INVERTER CABEL(12pin)
		LVDS CABLE(LGD TV HD_30pin)
		LVDS CABLE(LGD TV FHD_51pin)
		LVDS CABLE(LGD TV FHD120_41pin)
		Up grade Cable (USB Cable)
		CF CARD (4G)
		REMOCON
		Software
		MANUAL