

## LCM Pattern Generator Card

### MODEL 27010 SERIES

#### Key Features:

- LVDS / TTL (Optional) output
- Display size up to WQXGA 2560x1600 @60Hz max
- Data Clock: Single 135MHz / Dual 270MHz / 4 Link 330MHz max
- Data Bits: 6/8/10bit programmable max
- Vdd output 2V~13V/3.5A programmable max
- Vbl output 10V~25V/10A programmable max
- Vbl/Vdim Dimming adjustable 0~7V, 1.1V step
- Power OCP protection
- Up / down load function
- Timing / Pattern Auto / Manual Run
- Low cost
- Customer design for user define



## LCM PATTERN GENERATOR CARD MODEL 27010 SERIES

To comply with the current digital standard signal, LCD and digital display for test application, the Pattern Generator Card is a low cost and high value-added product that can provide LCD manufactures for In-line or Batch oven of aging test.

This 27010 series LCM Pattern Generator Card can be output with LVDS signal. For the multimedia applications, the 27010 series can be support TTL(optional). By supporting the display screen up to WQXGA, it is capable of performing LCD pixel inspection during production, OLB test, burn-in test, combination test, final test and life test widely.

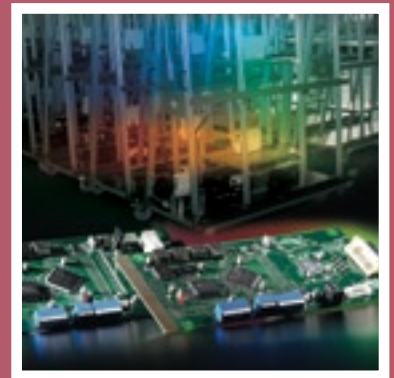
The PG Card uses Programmable Logic Device which is the pattern generator for LCD MODULE test. It supports VGA~WQXGA, 1 Link / 2 Link / 4 Link and 30 sets Timings, 64 sets Patterns and 30 sets Programs max for testing.

The signal transmission using the method of replacement output to panel depends on the

interface the LCD Module installed for the signal (LVDS, TTL) used. As to power rating, its DC support 5~15V max input power and 3.3~12A max output power is applicable to signal and LCD Module. Furthermore the required pattern, Color and other test functions can be set manually via the system control.

The PG card is equipped with a unique window-based editing software. Its convenient operating environment allows users to set timings, create patterns, and edit programs as well as control the power on/off timings of the PG Card via PC. The created files can be uploaded or downloaded from data buffer to PG Card easily for modification. This useful and practical design enables the software and testing parameter of PG Card be updated efficiently and optimizes its functions. Under this series could be customer design by user define.

#### LCM Aging Application



**Chroma**

## 27010 Series Pattern Generator Card



### SPECIFICATIONS

Model	27010	2701007	2701015	2701018	2701020
<b>LVDS Interface</b>					
Resolution	up to 1600 x 1200/60Hz	up to 2560 x 1600/60Hz	up to 2560 x 1600/60Hz	up to 2560 x 1600/60Hz	up to 2560 x 1600/60Hz
Pixel Rate	1 Link	81MHz	90MHz	100MHz	135MHz
	2 Link	162MHz (81MHz x 2)	180MHz (90MHz x 2)	180MHz (90MHz x 2)	270MHz (135MHz x 2)
	4 Link	-	x	x	330MHz (135MHz x 4)
Color Depth	6/8bits	6/8bits	6/8bits	6/8bits	6/8/10bits (10bit for gray scale)
Output Mode	2 Channel x 2	2 Channel x 2	2 Channel x 2	2 Channel x 2	2 Channel x 2 4 Channel x 1
I/O	Box Head 26pin	Box Head 34pin	Box Head 30pin	Box Head 30pin	Box Head 40pin
<b>Power Requirement</b>					
Input (Vdd)	15V/3A	15V/3A	15V/3A	15V/3A	16V/10A
Output (DC)	Vdd:3.3,5V/1.5A Vbl:12,24V/6A Vif:3.3,5V	Vdd:3.3,5,12V/2.5A Vbl:12,24V/6A max Vif:3.3,5V	Vdd:3.3,5,12V/3A Vbl:12,24V/6A Vif:5V	Vdd:3.3,5,12V/3A Vbl:12,24V/6A Vif:5V	Vdd:3.3~13V/4A max Vbl:10~25V/26A Vif:5V
Vbl interface	RS-485	RS-485	RS-485	RS-485	RS-485
Vdim	-	0~7V/0.1 step	0~7V/0.1 step	0~7V/0.1 step	0~7V/0.1 step
Inverter Voltage	On:5V, Off:0V	On:5V, Off:0V	On:5V, Off:0V	On:5V, Off:0V	On:5V, Off:0V
<b>Power Sequence Resolution</b>					
Turn-on (Vdd/Signal/Vbl)	1ms	1ms	1ms	1ms	1ms
Turn-off (Vdd/Signal/Vbl)	1ms	1ms	1ms	1ms	1ms
<b>Operation</b>					
Pattern Control	64 sets auto/manual (32 sets by editing)	64 sets auto/manual (30 sets by editing)	64 sets auto/manual (30 sets by editing)	64 sets auto/manual (30 sets by editing)	64 sets auto/manual (30 sets by editing)
Timing Control	16 sets by editing (8 sets by DIP switch)	30 sets by editing	30 sets by editing	30 sets by editing	30 sets by editing
Program Control	16 programs (total 3553 sequence)	30 sets by editing	30 sets by editing	30 sets by editing	30 sets by editing
<b>Environment</b>					
Operation Temperature	0~60°C	0~60°C	0~60°C	0~60°C	0~60°C
Storage Temperature	-20~80°C	-20~80°C	-20~80°C	-20~80°C	-20~80°C
Humidity	0~80%	0~80%	0~80%	0~80%	0~80%
<b>Dimension</b>					
HxWxD	180x90x25 mm	180x140x30 mm	210x180x30 mm	186x173x35 mm	210x230x60mm
Weight	330g	845g	455g	1365g	1870g

\* All specifications are subject to change without notice. Please visit our website for the most up to date specifications.

\* All specifications are customized designs.

### ORDERING INFORMATION

**27010** : Pattern Generator Card 2CH Signal 81MHz/Dual 162MHz  
**2701007** : Pattern Generator Card 2CH Signal 90MHz/Dual 180MHz  
**2701015** : Pattern Generator Card 2CH Signal 90MHz/Dual 180MHz  
**2701018** : Pattern Generator Card 2CH Signal 100MHz/Dual 200MHz

**2701020** : Pattern Generator Card 4CH 330MHz/10bit  
**A270100** : Data Bank  
**A270114** : Hub  
**A270121** : External Control Box  
**A2701005** : Remote Keypad

Developed and Manufactured by :

#### CHROMA ATE INC.

致茂電子股份有限公司  
**HEADQUARTERS**  
 No. 66, Hwa-Ya 1st Rd.,  
 Hwa-Ya Technology Park,  
 Kuei-Shan Hsiang,  
 Taoyuan County 33383  
 Taiwan  
 Tel: +886-3-327-9999  
 Fax: +886-3-327-8898  
 http://www.chromaate.com  
 E-mail: chroma@chroma.com.tw

**CHINA**  
**CHROMA ELECTRONICS**  
**(SHENZHEN) CO., LTD.**  
 8F, No.4, Nanyou Tian An  
 Industrial Estate, Shenzhen,  
 China PC: 518052  
 Tel: +86-755-2664-4598  
 Fax: +86-755-2641-9620

**JAPAN**  
**CHROMA JAPAN CORP.**  
 11F NARA Building II 2-2-8  
 Shinyokohama, Kouhokoku,  
 Yokohama City 222-0033  
 Kanagawa, Japan  
 Tel: +81-45-470-2285  
 Fax: +81-45-470-2287  
 http://www.chroma.co.jp

**U.S.A.**  
**CHROMA ATE INC. (U.S.A.)**  
 7 Chrysler Irvine, CA 92618  
 Tel: +1-949-421-0355  
 Fax: +1-949-421-0353  
 Toll Free: +1-800-478-2026  
 http://www.chromaus.com  
 E-mail: info@chromaus.com

**EUROPE**  
**CHROMA ATE EUROPE B.V.**  
 Morsestraat 32, 6716 AH Ede,  
 The Netherlands  
 Tel: +31-318-648282  
 Fax: +31-318-648288  
 http://www.chromaeu.com  
 E-mail: sales@chromaeu.com

Distributed by:

Worldwide Distribution and Service Network