Programmable Video Pattern Generator
MODEL: 2226/2326
(For LCD & Digital CRT Monitor)

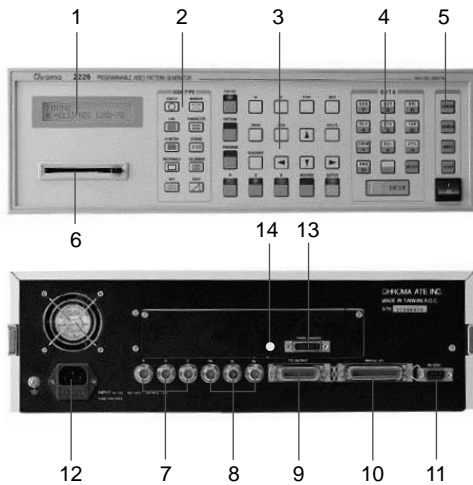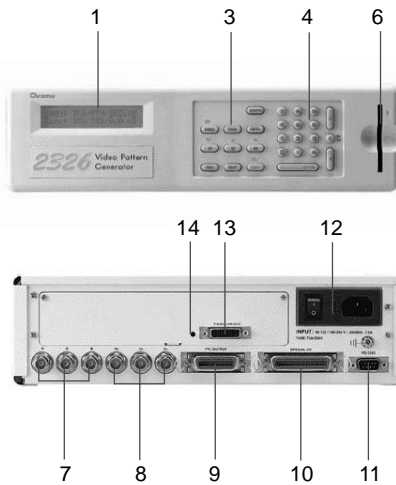*Key Features :*

- Analog video pixel rate up to 250 MHz
- Support DFP interface standards up to 165 MHz
- Large graphic display size up to 4096x 2048 (option)
- All timing parameters are fully programmable in one-pixel resolution
- Satisfactory color display performance up to 256 colors
- Natural picture for total color balance check
- Factory-installed standard pattern and timing library
- Screen drawing includes blinking and motion picture function
- DDC2B communication pin embedded in DVI connector
- Power saving mode test capability
- Optional memory card expansion for unlimited data storage
- RS-232C interface
- ESD protection circuit
- 16-bit TTL output ports for external control
- CE marking

Compact in design and fully field-tested, Chroma Model 2226 / 2326 meets the trend of extremely demanding CRT monitor industry where every pixel of monitor is critical in the Hi-Tech word. Chroma Model 2226/ 2326 offers the most cost-effective solution in production test, repair, service and application for CRT and LCD monitor industry.

The Chroma Model 2226 / 2326 series are programmable,microprocessor-based instrument for testing high resolution CRT or monitor, display monitor, projectors, and video printers. The instrument is capable of generating sophisticated video graphic display with 256 colors selection on every pixel. All horizontal and vertical timing parameters are fully programmable in one-pixel resolution. It supports the analog RGB and TMDS video outputs for the testing need of both LCD and CRT monitor. Manufacturers of monitors, projectors, and video printers can use the video pattern generators for design characterization, engineering, incoming inspection, production testing, and product demonstration.

The instrument provides a high integration digital CRT or LCD mornitor testing. With a full DVI single link bandwidth of 25-165 MHz, the instrument supports resolutions up to SXGA (1280 x 1024) at 85Hz refresh, or UXGA (1600 x 1200) at 60Hz refresh.

The Chroma Model 2226 has built-in software to let the user recall and edit test application of different video frequencies, video levels, timing parameters, patterns, and colors. In test application , the user can program and display various timing/pattern combinations on the monitor in an automatic sequencing mode or in a manual control mode. The screen drawing, including blinking function and motion picture, makes you operate more easily and friendly. The instrument can be operated using the front panel keypad or from the remote controller via RS-232C.

The Chroma Model 2326 is designed to generate video graphic patterns and timing formats which has been programmed into a memory card from PC or any Chroma 2226 series video pattern generators. Also, the operation can be programmed and controlled from PC through RS-232C interface.

CE RS-232C

Chroma Model 2226

Chroma Model 2326

1. **LCD Display**
2. **Icon Keys :** For icon type selection
3. **Function Key :** Timing & pattern
4. **Alphanumeric Keys :** For data input
5. **Config key :** General information setting
6. **Memory Card :** For storage memory expansion
7. **Analog Signal Output R.G.B.**
8. **Sync Output**
9. **TTL Output**
10. **I / O Port**
11. **RS-232C Interface**
12. **AC Input**
13. **DVI Output**
14. **TMDS Output Voltage Swing Adjust**

SPECIFICATIONS

Model	2226 / 2326
PIXEL RATE	
Range	(Analog) 3.126-250 MHz
	(Dightal) 25-165 MHz
Resoltion	1Hz
Ferquency accuracy	25ppm(typical), 1ppm(after calibration)
GRAPHIC DISPLAY	
	2048 X 2048,4096 X 2048 (optional)
Scan Mode	Non-interlace / Interlace Video & Sync
ANALOG OUTPUT	
VideoOutput	
Color	256 colors (1- pixel resolution)
Video	R、G、B (75 ohms loading)
	Level 0 ~ 1.0 V programmable
	Resolution 0.37 mV
Sync on Green	On / Off programmable
	Level 0 ~ 0.5 V programmable
	Resolution 0.156 mV
White	Level 0 ~ 1.2 V programmable
	Resolution 0.66 mV
Black Level	7.5/ 0 IRE programmable
Rise/Fall time	1.6 nS (typical), 2.0nS (maximun)
Video & Sync Phase Shift	(0pixel-8nS)
Separate Sync	
	Hs , Vs , Xs (Xs can be Hs , Vs , composite Sync) (TTL level)
HORIZONTAL TIMING	
Total Pixels	Width 128 - 8192 pixels
	Resolution 1 pixel
Sync	Width 16 - 8191 pixels
	Resolution 1 pixel
	Position Leading edge in blanking period
VERTICAL TIMING	
Total Pixels	Width 6-4096 lines(non-interlace)
	6- 2047 lines(interlace)
	Resolution 1 line
Sync	Width 1-4095 lines(non-interlace)
	1-2046 lines(interlace)
	Resolution 1 line
	Position Leading edge in blanking period
TTL OUTPUT	
Pixel Rate Rang	3.126-80.000MHz
Video	RGBrgb, RGB,MONO
Color	64 colors
Video & Syna Phase Shift	+4nS
Sync	Hs , Vs , Xs (Xs can be Hs , Vs , composite Sync)

DVI Output

Pixel Rate Range : 25-165MHz (TMDS**)**
                    3.126-250MHz (Analog)
DDC2B: Read and Write to smart monitor

Composite Sync

H+V, H Exclusive OR V, RS-343A

Waveform with Equalization & Serration Pulse

Data Storage Device	
Flash Memory (Read only)	100 timings +100 patterns
NVRAM (R / W)	300 timings +100 patterns +100 programs
Memory Card (R / W)	Unlimited data storage
Disk on PC (R / W)	Unlimited data storage

User interface
LCD, Keypad, Remote (optional), 16 output bits, RS232C

AC INPUT

90-132 V / 180-250 V, 47-63Hz, Auto Range
Temperature

Operation	+5~+40 deg .C
Storage	-20~+60 deg . C

HUMIDITY

20-90%

DIMENSION (W x H x D)

2226	2326
430 x 133 x 380 mm	318 x 100 x 320 mm
16.9 x 5.2 x 15 inch	2.5 x 3.9 x 12.6 inch

WHIGHT

2226	2326
8.3Kg / 18.29 lbs	4.5Kg / 9.92 lbs

All specifications are subject to change without notice.