

Video Pattern Generator

MODEL 2401

Key Features

- Analog pixel rate 165MHz
- Analog output with DDC
- 2K x 2K Graphic size
- NTSC / PAL / SECAM signal
- S-Video / CVBS / SCART / RGB
Color Component / D-Terminal
- Bi-level SDTV format
- Tri-level HDTV Format
- Closed Caption function (NTSC)
- V-Chip function (NTSC)
- Teletext function (PAL)
- Y, Pb, Pr / Y, Cb, Cr / Y, R-Y, B-Y output
- PC remote control
- User Define Key
- Built-in variety of video timings
& patterns
- Scrolling Pattern
- USB interface
- High Capacity Memory
- ESD protection circuit
- Economy



VIDEO PATTERN GENERATOR MODEL 2401

Along with the rapid development of LCD TV industry, all manufacturers are facing the competition of producing high value added and low cost products; and seeking for a total test solution to meet their needs has become the first priority.

Chroma 2401 Video Pattern Generator with the features described below is specially designed to fit in the requirements and application of production line for LCD-TV manufacturers.

Various Analog TV Signals Support

It has many built-in standard Analog TV signal outputs , such as RGB, YPbPr, CVBS for tests in Multimedia Display, Monitor and TV production.

Lightweight Design

The size of Chroma 2401 VPG is close to A4 that is portable and handy for various kinds of spaces or locations.

Exclusive Signals

The mapped international standard signal sources are provided for diverse Video signals requirements such as the requisite TV and HDTV that are applied in the configuration of production line planning and test workstation.

Convenient & Rapid Function

The test programs created in advance increase

the production efficiency; in addition for the frequently used function keys, users can edit the USER KEY to work with compound functions in specific test to save the test time.

USB Interface

The convenient USB interface can use USB Disk on PC to edit test programs, patterns and even to upload or download the upgrade programs to 2401 to reduce engineer's workload in setup and management.

Large Capacity

It has built in large capacity of storage memory that allows users to swap and save for different UUT without backup or download.(1000 TIMINGS and PATTERNS, 500 PROGRAMS)

Abundant Test Patterns

It includes standard static, dynamic and pattern screens to check the characteristics response, white balance and residual of UUT. Also it can use PC to create the test patterns required.

Extended Control

The default extended function on the front/rear panel is able to add remote control device or output control device for on-line link automatically.

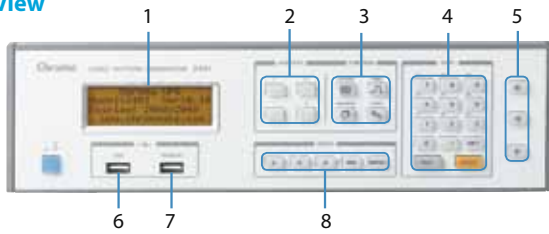


Chroma



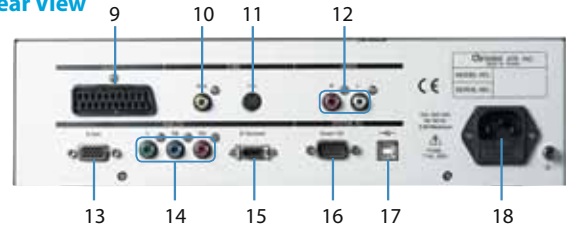
PANEL DESCRIPTIONS

Front View



- 1. LCD Display
- 2. User Key
- 3. Function Group
- 4. Data Group
- 5. Direction Key
- 6. USB Port
- 7. Remote for Chroma optional
- 8. Image Group for signal on/off select

Rear View



- 9. SCART output
- 10. CVBS output
- 11. S-Video output
- 12. Analog Audio output: R/L
- 13. RGB/D-sub Analog output
- 14. YPbPr Component output
- 15. D-Terminal output
- 16. Smart I/O for control
- 17. Host USB port
- 18. AC Line Input

SPECIFICATIONS

ANALOG OUTPUT	
Display Size	2048 x 2048
Pixel Rate Range	0.5~165MHz
Video Level	R,G,B (75 ohms) 0~1.0V programmable
Sync on Green / Level	0~0.5V On/Off programmable
White Level	0~1.2V programmable
Blank Level	7.5 IRE / 0 IRE selectable
HORIZONTAL TIMING	
Total Pixels	64~8192 pixels / 2 pixels resolution
VERTICAL TIMING	
Total Pixels	4~4096 lines (non-interlace) / 1 line programmable 4~2048 lines (interlace) / 1 line programmable
COMPOSITE SYNC	
	H+V, H EXOR V, Equalization & Serration Pulse
SEPARATE SYNC	
	Hs(Xs), Vs
VIDEO FORMAT	
Video Output (D-SUB)	R, G, B Y, R-Y, B-Y Y, Cb, Cr / ITU 601 Y, Pb, Pr / ITU 709, RP177, SMPTE 240M DDC II B

TV OUTPUT	
Output Mode	NTSC PAL SECAM
Subcarrier Frequency	443 M, J 4.43 3.58 BDGHI M 60 N Nc 4.41/4.25 MHz
Subcarrier Stability	±50 Hz
Video Output	Composite (RCA), S-Video Burst On/Off (NTSC, PAL) Contrast programmable Brightness programmable Saturation programmable Hue programmable
Closed Caption Support (NTSC)	C1, C2, C3, C4/T1, T2, T3, T4
V-CHIP (NTSC)	MPPA Rating : G, PG, PG-13, R, NC-17, X FCC Rating : TV-Y, TV-Y7, TV-G, TV-PG, TV-14, TV-MA Canada English Rating : C, C8+, G, PG, 14+, 18+ Canada French Rating : G, 8 ans+, 13 ans+, 16 ans+, 18 ans+
Teletext (PAL)	Teletext System B Level 1, 1.5

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

SDTV FORMAT					
Timing	Progressive Mode Frame Rate (Hz)		Interlace Mode Frame Rate (Hz)		Standard
720x483	59.94P	60/1.001			SMPTE 293
			59.94I	59.94/2	ITU 601 SMPTE 170M
720x576	50P	50			ITU 1382
			50I	25	ITU 601
HDTV FORMAT					
Timing	Progressive Mode Frame Rate (Hz)		Interlace Mode Frame Rate (Hz)		Standard
1920x1080	60P	60	60I	30	SMPTE 274
	59.94P	60/1.001	59.94I	30/1.001	SMPTE 274
	50P	50	50I	25	SMPTE 274
	30P	30			SMPTE 274
	29.97P	30/1.001			SMPTE 274
	25P	25			SMPTE 274
	24P	24			SMPTE 274
1920x1035	23.98P	24/1.001			SMPTE 274
			60I	30	SMPTE 240
1280x720			59.94I	30/1.001	SMPTE 240
	60P	60			SMPTE 296
	59.94P	60/1.001			SMPTE 296
	50P	50			SMPTE 296

AUDIO (ANALOG) OUTPUT	
Frequency Range	50Hz/100Hz/200Hz/500Hz/1KHz/2KHz/5KHz/10KHz/15KHz/20KHz
Waveform	Sine wave
Number of Channel	2 Channel (R / L)
Level Range	0V to 2V (at 600 Ohms Load)
Special Control Mode	Tone / Sweep / Mute / Repeat / Play Time

DATA STORAGE DEVICE	
Default	1000 timings + 1000 patterns
Internal Memory	1000 timings + 1000 patterns + 500 programs
External Memory	USB Host interface
OTHERS	
AC Input	1Ø 110~240V ± 10% V _{LN} , 47~63Hz
Operation/Storage Temp.	+5~+40 deg.C / -20~+60 deg.C
Humidity	20~90 %
Dimension(HxWxD)	88x320x240mm / 3.46x12.6x9.45inch
Weight	3.2kg / 7.05 lbs

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