# RGB Programmable Generators



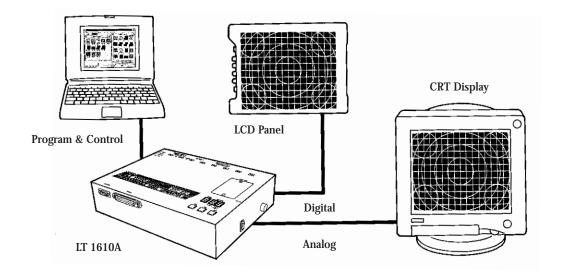
LT 1610A, LT 1611, LT 1612A (LT 1610A shown)

This group of three RGB generators offers dedicated analog, digital or combined analog/digital outputs to best suit application needs. Dot clock frequencies handle a wide range of applications ranging to SXGA (1200 x 1024). All in the group operate from user-replaceable ROMs making them ideal for production operations wherein parameters are not to be altered by operators. Remote control units (LT 1610-01) extend program selection to remote control points and widen operator control to signal output conditions including sync format and polarities. Full PC control gives the operator complete control over raster architecture, signal-output conditions and selection from stock and custom patterns.

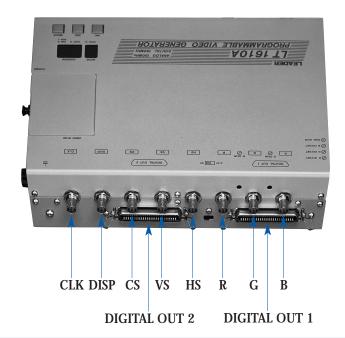
- PC Programming and Control Operates in Windows\* Environment
- ROMSetup and Control for Stand-Alone Operations
- Analog RGB, Clock to 150 MHz, Model LT 1611
- Digital RGB, Clock to 150 MHz, Model LT 1612A
- Both Analog and Digital RGB, Clock to 150 MHz/200 MHz, Model LT 1610A
- Digital Outputs 8-Bit Parallel, Models LT 1610A & LT 1612A, Handles Most Flat-Panel Displays
- High Speed Switching Speeds Pattern Selection
- Power Saving Display Function as Specified in VESA Standards
- Graphic Design of Custom Tet Patterns
- Stock Test Patterns Include SMPTE RP-133 & Flower Image
- Image Downloading
- X-Y Display Function Locates Pixel Coordinates (to Locate Display Faults)
- Auto Display Functions (Pattern Switching & Scroll)

Control extends to the graphic design of custom patterns and the downloading of images from digital still cameras or scanners. X-Y cursors permit the coordinates of defective pixels in the display to be accurately established and provision is made to test monitor power-saving actions spelled out in VESA standards. Fast image switching speeds production work by reducing the wait for new images to appear. Image sequencing may be programmed and scrolling window or character actions aid in gauging image decay characteristics. A factory option adds 2 MB of RAM to extend image memory to accommodate up to 6 VGA format images.

\*Windows is a registered trademark of Microsoft Corporation in the United States and/or other countries.



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LT 1610A Rear Panel

## KEY SPECIFICATIONS (LT 1610A - LT 1612A)

## DOT CLOCK FREQUENCY

Analog (LT 1610A, LT 1611)

1.024-150 MHz (10 ppm)

Digital (LT 1610A, LT l612A)

1/1 Clock Mode: 1.024-75 MHz

1/2 Clock Mode: 2.048-150 MHz

## HORIZONTAL FREQUENCY

3.077-250 kHz, 8192 dots max.

#### **SCAN LINES**

8179 (interlace)

#### **VIDEO MEMORY**

(2048 x 2048) x 4

#### **PATTERNS**

## Stock

28 fixed patterns (still picture, SMPTE RP-133, dot, crosshatch, gray scale,

window, character list, circle, etc.)

#### Custom

16 programmable patterns (15 variable

parameters and 1 special)

#### SIGNAL OUTPUT LEVELS

Analog (LT 1610A, LT 1611)

Video: RGB 0.300-1.2 V

Sync, DISP: 5 V 3.3 V selectable

(5 V only LT 1611)

Setup: On/off (complies with RS-343A)

#### **Clock Output**

ECL amplitude, AC coupled

**Output Connectors** 

R, G, B, HS, VS, CS, DISP, CLK: BNC Digital (LT 1610A, LT 1612A)

CMOS/TTL 5 V/3.3 V selectable

### DIGITAL OUTPUTS (LT 1610A, LT 1612A)

Video Output 1

R7-R0, G7-G0, B7-B0, HS, VS, CS, HD,

VD, DISP, CLK, CTRLO, CTRL1,

V cc (+5 V/+3.3 V)

Video Output 2

R7-R0, G7-G0, B7-B0, (1/2 clock rate),

CTRL2, V cc (+5 V/+3.3 V)

**Output Connector** 

Amphenol 57 series, 50 pin

### ANALOG CONTROLS (LT 1610A, LT 1611)

RGB video

On-off

On-on

Fine Output Adjustment

Offset RGB: individual

Video Level: RGB common

RGB Balance: R & B only

Composite Video

Sync On/Off on green only

## PULSE/SCAN CONTROL

**Equalizing Pulse** 

Off, 0.5H, 1H

**Serration Pulse** 

Off, 0.5H, 1H

Scanning

Non-interlace (progressive), interlace,

interlace shrink

## **OUTPUT CONTROL**

On/off and inverted RGB

On/off and ± HS, VS, CS, HD, VD, DISP, CLK

#### **EXTERNAL INTERFACE**

RS-232C: D-sub 9-pin connector

Remote: Amphenol 57 series,

36-pin connector

## **ENVIRONMENTAL**

**Operating Temperature** 

 $0-40^{\circ}C$ 

#### **POWER REQUIREMENTS**

90-250 V ac, 50/60 Hz

#### **PHYSICAL**

Size (W x H x D)

 $11^{5/8} \times 2^{3/4} \times 8^{1/4} in.$ 

295 x 72 x 210 mm

#### **SUPPLIED ACCESSORIES**

**User ROM** 

**Windows Application Software** 

Spare Fuse

## **OPTIONAL ACCESSORY**

LT 1610-01 Remote Control

LT 1609-06/LT 1609-012) Video

Distributor

## **AVAILABLE OPTION**

Still Picture Backup Ram (2 MB)