

MODEL 6113
VIDEO PATTERN GENERATOR

October 1, 2003

MODEL 6113
Video Pattern Generator

Table of Contents

<u>Paragraph</u>	<u>Description</u>	<u>Page</u>
1.0	GENERAL	1
2.0	CHARACTERISTICS	1
2.1	Test Pattern A (Fig. 1)	1
2.2	Test Pattern B (Fig. 2)	1
3.0	MECHANICAL CONFIGURATION	5
4.0	CONTROLS, INDICATORS AND CONNECTORS	5
4.1	Power ON/OFF	5
4.2	Video out 1	5
4.3	Video out 2	5
4.4	Power In	5
5.0	SPECIFICATIONS	6
5.1	Video Characteristics	6
5.2	Pattern A	6
5.3	Pattern B	6
5.4	Power	7
5.5	Environmental	7
<u>Figures</u>	<u>Description</u>	<u>Page</u>
1	Video Signal Output (Pattern A)	2
2	Video Signal Output (Pattern B)	2
3	Horizontal Test Pattern	3
4	Vertical Test Pattern	3
5	Front Panel	4

MODEL 6113

Video Pattern Generator

1.0 GENERAL

The ITS Model 6113, Video Pattern Generator provides a composite 875 line video signal source designed for setup and performance test of Video Monitors, Video Recorders, and other video processing equipment. The unit is designed to provide configurations to meet special requirements. Two separate outputs are provided which operate simultaneously. Each output provides a unique test pattern.

The 6113 is housed in a 19" wide rack mountable enclosure by 8.5" deep by 3.5" high. It is powered by 105-250VAC 50/60Hz or optionally 10-36VDC (Model 6113A) at 5 watts. The weight is approximately 5.25 lbs.

2.0 CHARACTERISTICS

2.1 Test Pattern A (Fig. 1)

Test Pattern A is output via Video Out 1. The pattern consists of two, ten level gray scales, at the left and right of center. Additionally the pattern has four vertical "Focus" lines at the center, a border and a single horizontal line at the center. The displayed pattern shown is Figure 1 and the video timing is shown in Figures 3 and 4.

2.2 Test Pattern B (Fig. 2)

Test Pattern B is output via Video Out 2. The pattern is a ten level gray scale made up of horizontal bars and occupying a window centered in the video frame. The height of the window is 60 percent of the frame and the width is 30 percent of the frame. The gray scale range is black to full white with the brightest bar at the bottom.

Video Signal Output
Model 6113

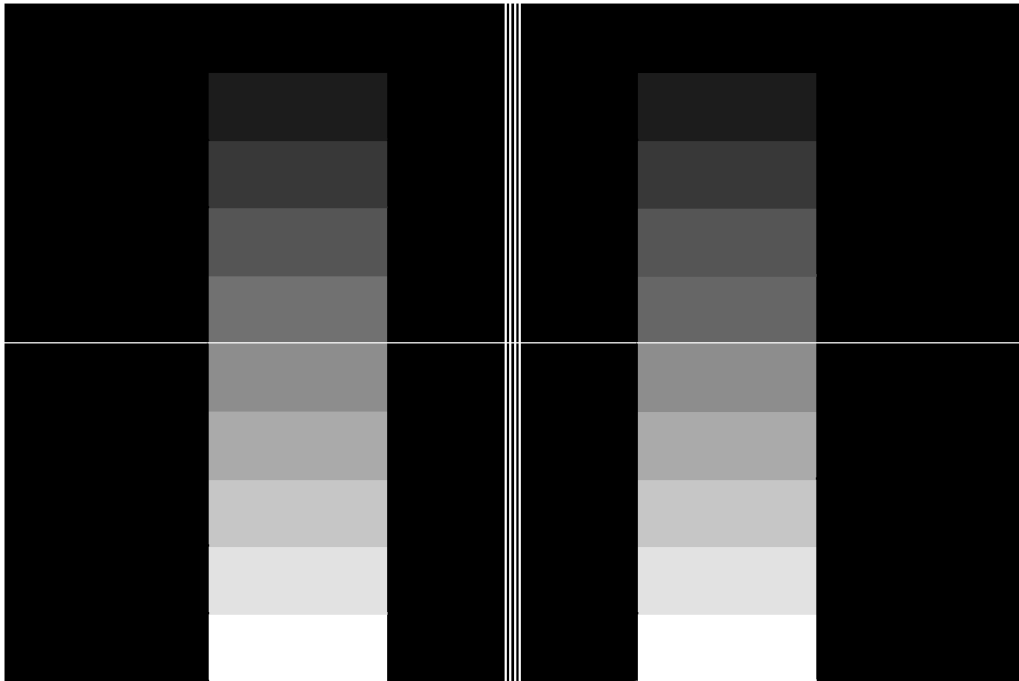


Fig 1

Pattern

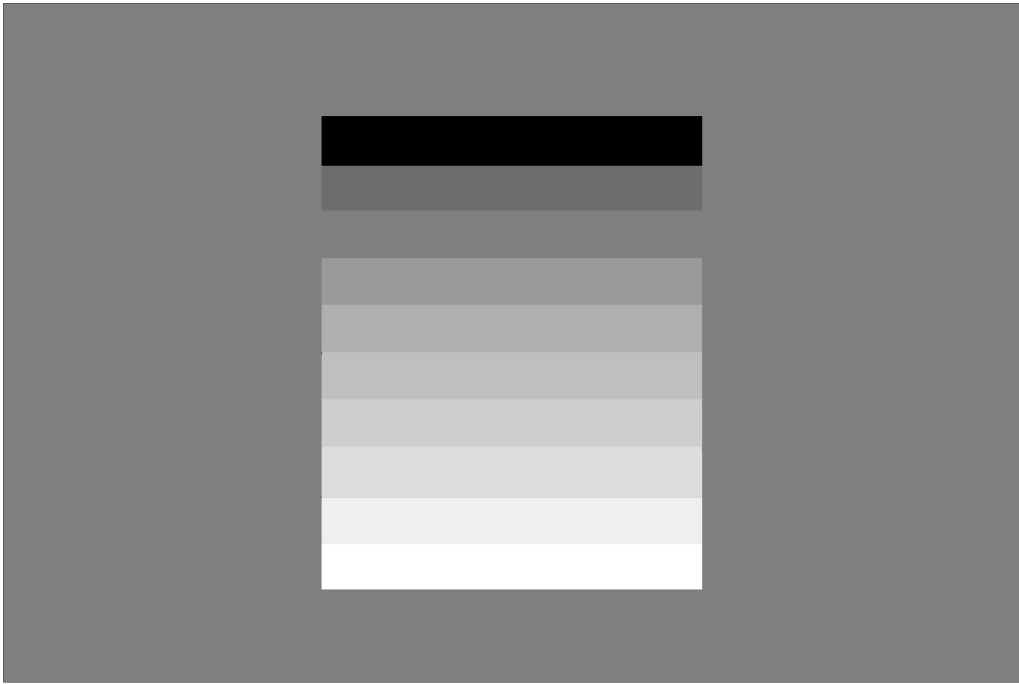
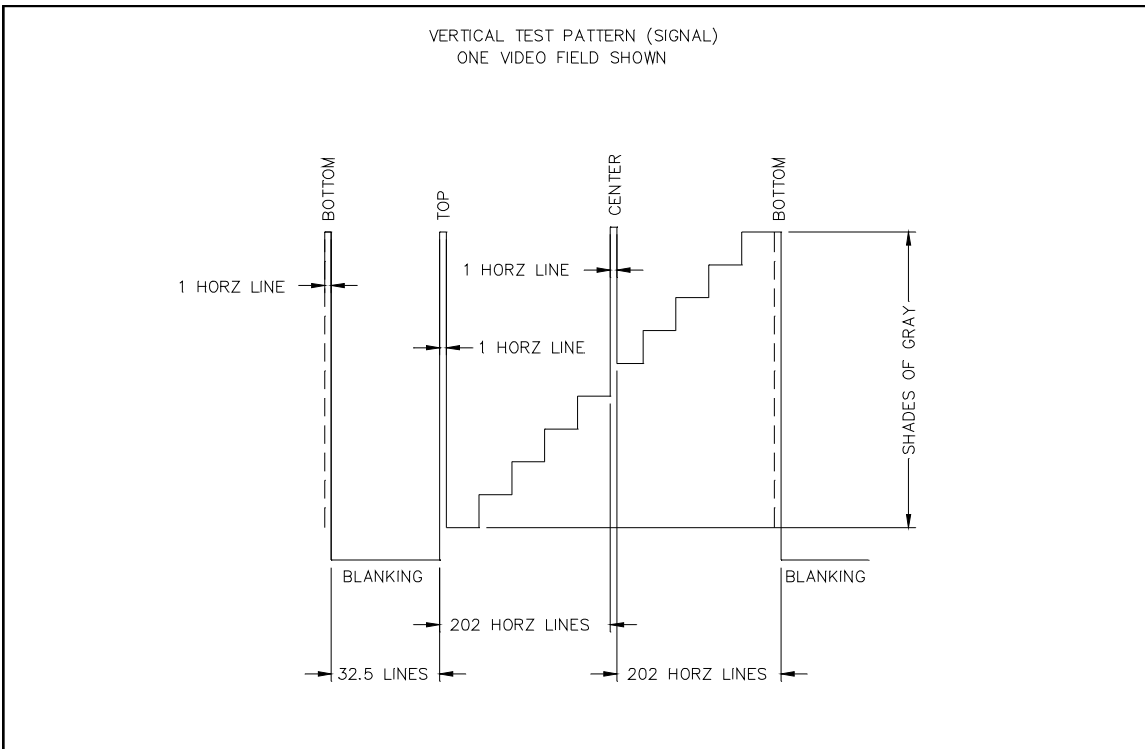
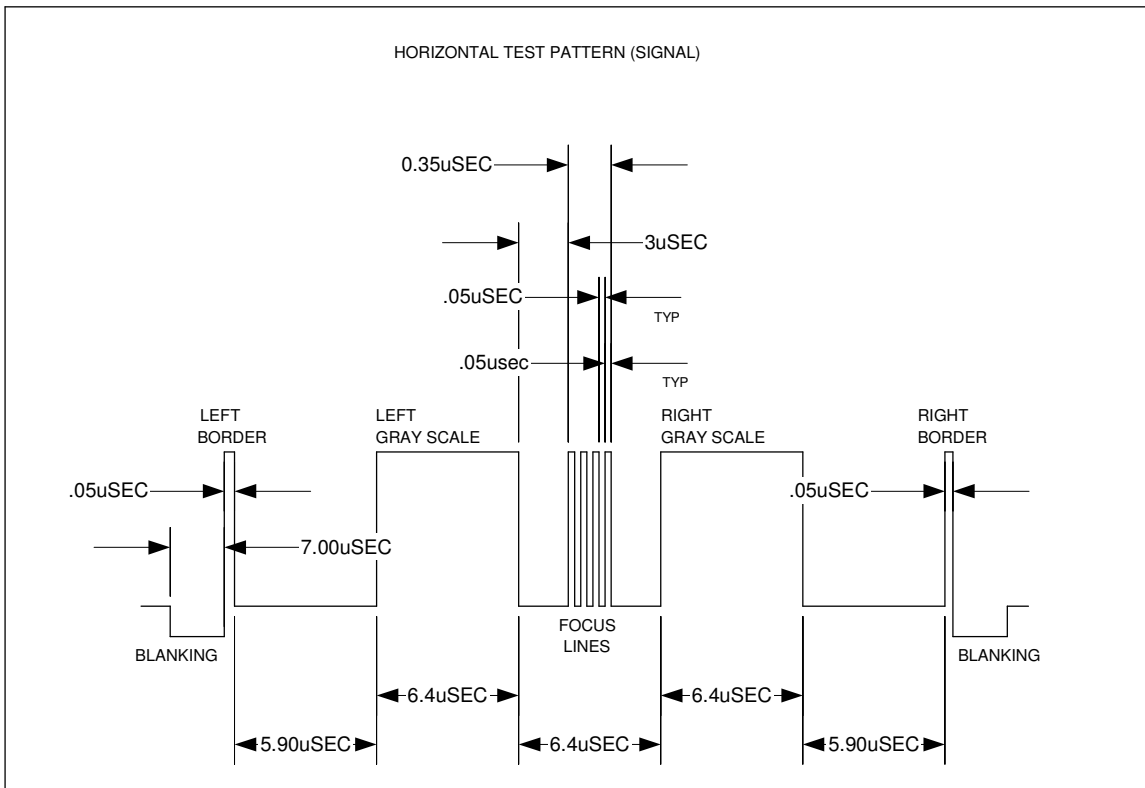
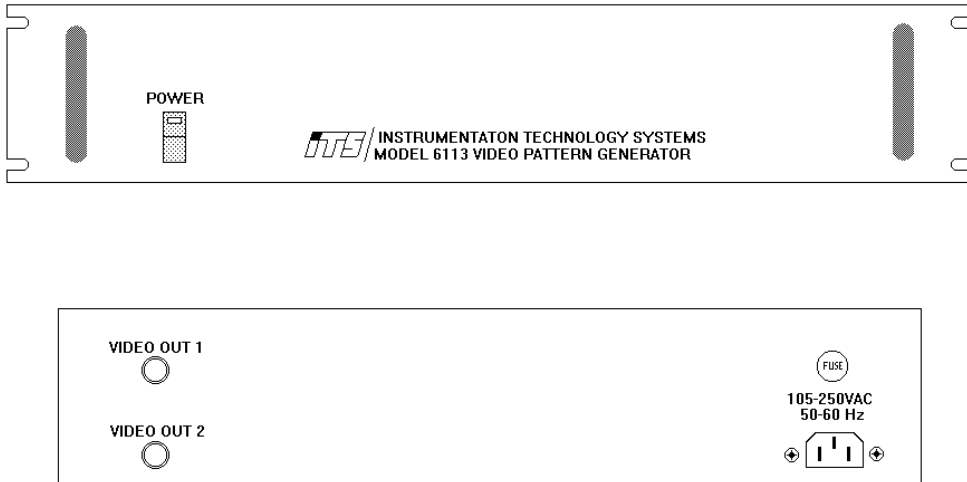


Fig. 2
Pattern B



3.0 MECHANICAL CONFIGURATION (Fig. 5)

The 6113 is housed in a ruggedized 19 inch rack mountable aluminum enclosure 8.5 inches deep by 3.5 inches high. Weight is approximately 5.25 lbs. All circuitry is on printed circuit assemblies. Connections to PC assemblies are via mating connectors. No card edge connectors are used. All connectors are on the rear panel. An illuminated power switch is on the front panel.



**Model 6113
Front Panel
Figure 5**

4.0 CONTROLS, INDICATORS AND CONNECTORS

- | | | |
|-----|--------------|--|
| 4.1 | Power ON/OFF | Rocker Switch with integral LED indicator - Turns power to unit ON and OFF. LED indicator is illuminated when power is on. |
| 4.2 | Video out 1 | BNC connector - Outputs Test pattern A, RS-343 video. |
| 4.3 | Video out 2 | BNC connector - Outputs Test Pattern B, RS-343 video. |
| 4.4 | Power In | Three pin connector with integral line filter - Receives detachable Line cord. |

5.0 SPECIFICATIONS

- 5.1 Video Characteristics 875 line composite video in accordance with EIA RS-343A. Interlaced 2:1, 1 volt p-p, black negative. Output as specified when terminated in 75 ohm load.
- | | |
|--------------------|---|
| Horiz Freq: | 26246.7 Hz |
| Horiz Sync Period: | 38.100 microseconds |
| Horiz Front Porch: | 1.000 microseconds |
| Horiz Sync Pulse: | 2.750 microseconds |
| Horiz Back Porch: | 3.250 microseconds |
| Horiz Blanking: | 7.000 microseconds |
| Horiz Pixel: | 0.05 microsecond |
| Vert Freq: | 59.9925 Hz |
| Vert Sync Period: | 16.6688 microseconds |
| Vert Front Porch: | 3 Horizontal lines |
| Vert Sync Pulse: | 3 Horizontal lines |
| Vert Back Porch: | 26 Horizontal lines |
| Vert Pixel: | 1 Horizontal field line (two frame lines) |
- 5.2 Pattern A: Two vertical ten level gray scales at left and at right of center, with black at top and white at bottom. Both gray scales are 128 pixels wide and occupy the full vertical frame. The left scale begins at horizontal pixel 119 and the right scale begins at pixel 375. The pattern includes a one pixel white border and a one pixel horizontal line at the center vertically. Also included are four focus lines occupying the full vertical frame and located at the center horizontally. The focus lines are one pixel wide and one pixel apart. The lines start at horizontal pixel 307. (See Figures 1, 3, and 4)
- 5.3 Pattern B: Ten level gray scale described in horizontal bars occupying a window in center of frame. Frame is 622 pixels by 811 lines. Window is 186 pixels wide and 490 lines high. Each horizontal gray scale bar is 49 lines high. Upper left corner of window is located at pixel number 218 and line number 160. (See Figure 2)

5.0 SPECIFICATIONS (continued)

5.4 Power: 105-250 VAC \pm 10%, 50/60 Hz. (10-35 VDC optional), 5 watts.

5.5 Environmental
 Temperature 0°C to 50°C operating, -20 to 70°C storage
 Humidity 0 to 90% non-condensing, operating
 EMI Designed to meet FCC part 15 Class A standard.