The split field bars/Y reference signal provides a convenient means for simultaneous checking of picture monitor color performance and gray scale tracking.

The split field bars/red field signal is useful in detection of VTR noise and moire.

The SMPTE Bars signal provides an easy way to adjust picture monitor chroma, hue, and brightness.

TSG2/TSG12
Convergence Test Signal Generators

Dots and crosshatch

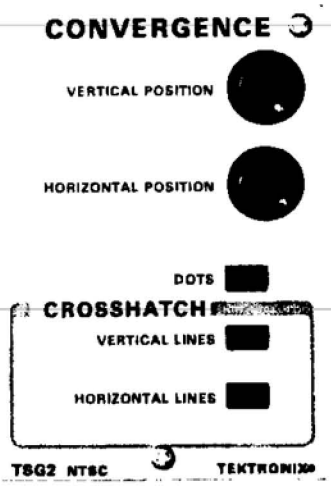
Dots only

Vertical lines only

Horizontal lines only

Vertical and horizontal lines

Position controls



The TSG2 and TSG12 provide high-quality convergence test signals for the 1410R Series signal generators. You can use them to determine picture monitor or camera scanning linearity, aspect ratio, and geometric distortion. Signals for the TSG2 conform to IEEE Standard 202.

Provision is made for on/off switching of the dots, vertical lines, and/or horizontal lines and for positioning vertical and horizontal lines.

TSG3/TSG13/TSG23
Linearity and Modulated Pedestal Test Generators

5 step and 10 step staircase signal

Ramp signal

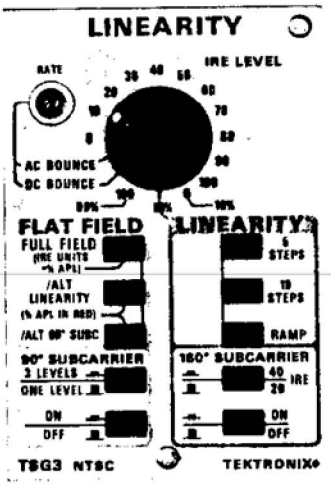
2 modulation amplitudes

One or three level modulated pedestal

Flat field with 11 fixed levels

AC and DC bounce

Variable APL



The TSG3, TSG13 and TSG23 provide high-quality linearity and modulated pedestal test signals for the 1410R Series signal generators.

You can select the 5 step and 10 step staircase signals and the ramp signal with or without 180° subcarrier modulation for NTSC, or U subcarrier modulation for PAL and PAL-M. Applications include measuring differential phase and gain, dynamic gain, luminance linearity, and burst phase errors.

On the ac bounce signal, the active portion of each line (excluding sync) changes APL levels at a rate determined by the rate control (1 second to 30 second intervals). Blanking level remains fixed at 0 V. To check ac coupled circuitry use ac bounce.

On the dc bounce signal, ac bounce occurs as described above. In addition, the entire signal changes dc level in the opposite direction at the same rate resulting in no change in average dc level. Clamp circuits may be checked using dc bounce.

TSG5/TSG15/TSG25
Pulse and Bar Generators

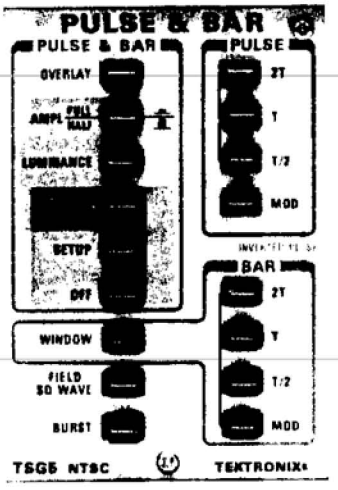
Pulse and bar overlay

Full and half amplitude pulse and bar

Field squarewave and window

Modulated pulse and modulated bar

Front panel selection of 2T, T, and T/2 pulse width and bar risetime



The TSG5, TSG15, and TSG25 are $\sin^2$ pulse and bar television test signal generators designed for use with the 1410R Series signal generators.

The pulse and bar test signal consists of a $\sin^2$ modulated pulse, a $\sin^2$ pulse, and luminance bar. The pulse and bar overlay mode lets you conveniently compare pulse to bar ratio without manipulating waveform monitor controls.