

White Field.

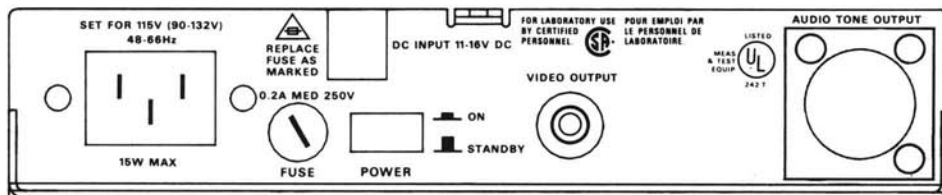
## CHARACTERISTICS

## TEST SIGNAL GENERATOR

|                                |         |
|--------------------------------|---------|
| Luminance Amplitude Accuracy   | ±1%     |
| Chrominance to Luminance Gain  | ±2%     |
| Chrominance to Luminance Delay | ±15 ns  |
| Blanking Width                 | 10.9 μs |
| Output Impedance               | 75 Ω    |

## TEST SIGNALS

|   |   |
|---|---|
| SMPTE Color Bars  |   |
| Convergence Pattern   | 14 lines per field, 17 lines per horizontal     |
| Multiburst<br>Reference Bar and Packet Amplitude<br>Burst Frequencies               | 60 IRE<br>0.5, 1.0, 2.0, 3.0, 3.58, and 4.2 MHz |
| Pulse & Bar and Modulated Pulse<br>Bar Amplitude<br>2T Pulse HAD<br>12.5T Pulse HAD | 100 IRE<br>250 ns<br>1.56 μs                    |
| 5 Step Staircase  | 100 IRE   |
| Modulated 5 Step<br>Chrominance Amplitude<br>Diff Gain<br>Diff Phase                | 40 IRE<br>≤1%<br>≤0.6°                          |
| White Field   | 100 IRE   |
| Black Burst Setup   | 7.5 IRE   |



TSG-100 Rear Panel.

## INTERNAL REFERENCE

|                            |                               |
|----------------------------|-------------------------------|
| Subcarrier                 |                               |
| Frequency                  | 3.579545 MHz                  |
| Stability Over Temperature | Within 10 Hz from 5° to 35°C. |

## AUDIO TONE GENERATOR

|            |  |
|------------|--|
| Frequency  | 1 KHz  |
| Amplitude  | 0 to +8 dBu into 150Ω, 600 Ω, or a high impedance load |
| Distortion | ≤ 0.5% THD + noise                                     |

## POWER SOURCE

|                    |               |
|--------------------|---------------|
| Mains              |               |
| Voltage Range      | 90 to 132 Vac |
| Frequency Range    | 48 to 66 Hz   |
| DC Power Operation | 11 to 16 Vdc  |
| Power Consumption  | 10 W typical  |

## PHYSICAL CHARACTERISTICS

| Dimensions | mm   | in   |
|------------|------|------|
| Height     | 43   | 1.71 |
| Width      | 206  | 8.1  |
| Length     | 305  | 12.0 |
| Weight     | kg   | lb   |
| Net        | 1.48 | 3.25 |

## ENVIRONMENTAL

|               |              |
|---------------|--------------|
| Temperature   |              |
| Operating     | 0° to 50°C   |
| Non-Operating | -40° to 65°C |

## ORDERING INFORMATION

When ordering, please use the nomenclature given here:

**TSG-100 NTSC Television Generator**

## OPTIONAL ACCESSORIES

**Mounting Kits** — Hardware for mounting in a 1700F02 or 1700F05. Order TVGF10.

Hardware for mounting in a 1.75 inch high, 19.0 inch wide rack space. Order TVGF11.

Adapter for mounting to the bottom of a 1700F02 carrying case. Order TVFG12.

For rack mount photos, see page 106.

# TEK

TSG-100  
TEST SIGNAL GENERATOR

## TSG-100 Test Signal Generator

Simple yet functional test signal complement

8 bit digital generation

Conforms to RS-170A timing specifications

1 kHz audio tone

H or V rate scope trigger signal

DC power operation

Compact and lightweight

The TSG-100 is a low cost NTSC Test Signal Generator ideally suited for the maintenance and alignment of video equipment in most television environments.

The 8 bit digital test signal generator ensures conformance to RS-170A timing specifications while providing good, long-term signal stability.

TSG-100 test signal includes:

- SMPTE color bars
- Convergence pattern
- Multiburst
- Pulse & bar with window and modulated pulse
- 5 step staircase
- Modulated 5 step
- White field
- Black burst

Front and rear panel test signal outputs provide convenient access to test signals for both rack mount and service bench applications.

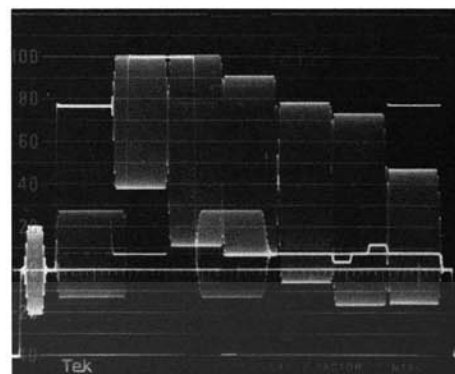
A front panel scope trigger output is provided for service applications. Horizontal or vertical repetition rate is front panel selectable.

The TSG-100 includes a 1 kHz audio tone generator for continuity and level checks. Level of the tone is user adjustable over a 0 to +8 dBu range. The level 0 dBu is equivalent to 0 dBm in a 600  $\Omega$  environment. Output is on a rear panel XLR connector.

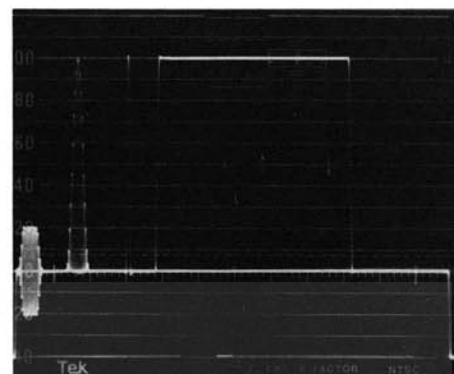
The TSG-100 is housed in a compact, rugged mechanical package and, with DC power operation, is suitable for studio, mobile unit, and field portable applications.



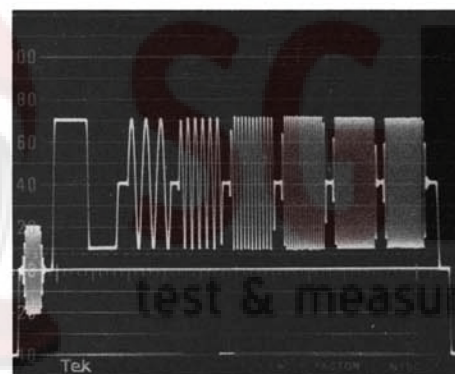
TSG-100 Test Signal Generator.



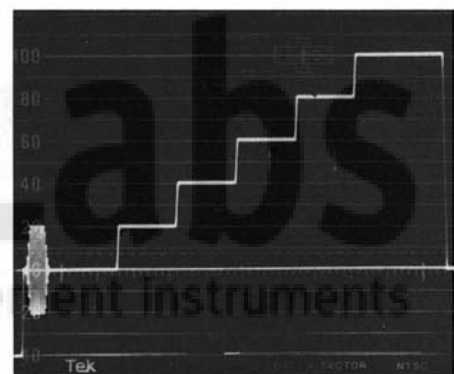
SMPTE Color Bars.



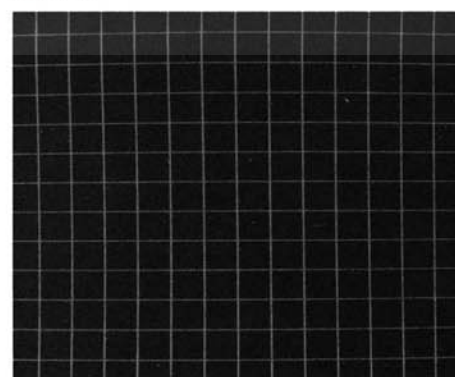
Pulse and Bar with Window and Modulated Pulse.



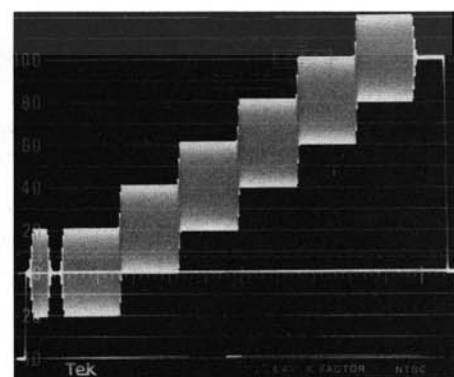
Multiburst.



5 Step Staircase.



Convergence Pattern.



Modulated 5 Step.

NEW PRODUCT