

Tektronix TSG1001 Characteristics

Test Signal Generator

Output Formats - GBR; Y, color difference; NTSC.

Levels -

GBR: 0 to 700 mV in each channel.

Y, P_B, P_R:

Y Channel: 700 mV.

P_B, P_R Channels: ± 350 mV.

Betacam:

Y: 714 mV.

B-Y, R-Y: ± 350 mV.

MII:

Y: 700 mV.

B-Y, R-Y: ± 242.8 mV.

NTSC: 714 mV.

Amplitude -

Accuracy: $\pm 1\%$ at 700 mV

Channel Match: $\pm 0.5\%$; Channels 2 and 3 referenced to Channel 1.

Frequency Response - $\pm 1\%$ to 20 MHz;

$\pm 2\%$ to 30 MHz.

Group Delay Distortion - ≤ 3 ns to 20 MHz; ≤ 5 ns to 25 MHz.

Channel to Channel Delay - Within 1 ns; Channels 2 and 3 referenced to Channel 1.

Field Tilt - $\pm 0.5\%$.

Line Tilt - $\pm 0.5\%$.

Sine Squared Pulses -

HAD's accurate within ± 2 ns.

Pulse to Bar Ratio - 1:1 within 1%.

Blanking Level - 0 V DC ± 50 mV.

Spurious Signals - < 5 mV to 30 MHz;

< 7 mV to 300 MHz.

Output Impedance - 75 Ohm.

Return Loss - ≤ 35 dB to 30 MHz.

Sync Generator

Internal Reference -

Frequency: 72.0 MHz; 74.25 MHz.

Stability: ± 3 ppm, 0° to +50°C.

Clock and Frame Inputs -

Impedance: 78 Ohm.

Level: Differential ECL.

H & V Drive Outputs -

Impedance: 75 Ohm.

Levels:

Low: 0.5 V Max.

High: 2.4 V Min.

Programmable Trigger

Trigger Output -

Amplitude: 200 mV.

Impedance: 100 Ohm.

Pulse Duration: 50 ns.

Pulse Polarity: Positive going from 0 V.

Digital Outputs

Clock Frequency - 72.0 MHz; 74.25 MHz; 75.335664 MHz.

Digital Coding - 10-Bit linear PCM.

Output Format - Balanced ECL (10 K Series); 10 data pairs, 1 clock pair.

Connector - 25-Pin D female.

Power Requirements

Mains -

Voltage Range: 90 to 132 or 180 to 250 V AC.

Frequency Range: 48 to 66 Hz.

Power Consumption: 170 W typical.

Environmental

Temperature -

Operating: 0° to +50°C.

non-operating: -40 to +65°C.

Certifications

EMC - Certified to the EMC Directive 89/336/EEC.

Safety - Approved to: UL1244, CSA231.

Complies with: EN61010-1, IEC61010-1.

Physical Characteristics

Dimensions	mm	in.
Height	88	3.48
Width	483	19
Depth	559	22
Weight	kg	lb.
Net	11.34	25