

TG5611/TG5612

TELEVISION INSTRUMENTS

TV TEST SIGNAL GENERATOR



General

The TG5611/5612 are NTSC/PAL TV test signal generators capable of generating up to 16 test signals for output by operating the signal selection switch on the front panel. Each output signal is output through its corresponding output connector on the rear panel—one each for “Y+S” and “Chroma” outputs, and two for “Composite” output. These signals are ideal for the inspection, adjustment, development and other applications concerning TV receiver sets, VCRs, and other video-related equipment. In addition, the level of luminance, chroma, and sync signals can be varied independently with the STD/VAR selection switch in the VAR position. The genlock function is standard. Together with the optional GP-IB interface and digital data output unit, the TG5611/5612 can be easily integrated into a comprehensive measuring system. Thanks to the TG5611/5612's ultra high-speed 12 bits D/A converter, accurate output test signals that are closer to theoretical values can be obtained.

Features

- Test signals data are obtained through the D/A conversion of 12 bits data, providing higher waveform quality and longer operating stability.
- Genlock operation is possible with the input of an external VBS or black burst signal.
- Independent level changes of luminance, chroma, and sync signals are possible.
- Remote function is standard.
- An optional GP-IB interface unit permits signal selection and level change operations, enabling the TG5611/5612 to be integrated into a larger measuring system.
- An optional digital data output unit permits output of 10 bits data of the MSB side of the output signal at the ECL level.

Note: Simultaneous operation of the GP-IB interface unit and the digital data output unit is possible.

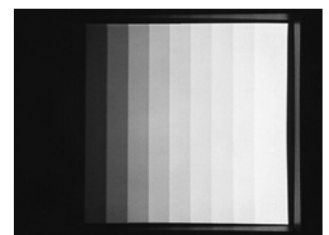
Specifications

- Television system
 - TG5611 System M; Color NTSC
 - TG5612 System B/G, D, I; Color PAL
- General Specifications
 - Power supply 90 to 250 V, 50/60Hz
 - Power consumption
 - TG5611: Approx. 72 VA
 - TG5612: Approx. 97 VA
 - Operating temperature range
 - 0°C to 40°C
 - Relative humidity 25% to 90%RH (non-dewing)
 - Dimensions 426 (W) x 49 (H) x 460 (D) mm
 - Weight Approx. 6.0 kg

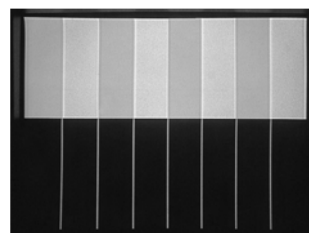
Test signals



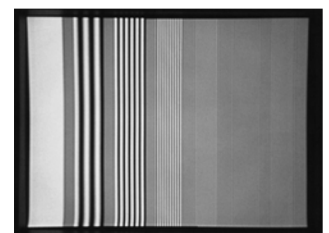
SMPT color bar



10 Step



Y/C delay



100% multiburst

TG5611		TG5612	
Specifications			
Sampling frequency	14.31818 MHz, 910 sampling	Sampling frequency	14.1875 MHz, 908 sampling
Word length	12 bits/word	Word length	12 bits/word
Test signals			
Full field color bar	Y/C delay	EBU color bar	Pulse & bar
SMPTE color bar	Y/C separator (for adjusting Y/C separator)	BBC color bar	Multi 2T pulse
Mod. 10 STEP	100% multiburst	Split field color bar	Y/C delay
5 step (with 10 IRE)	50% multiburst	10 step	100% multiburst
Mod. ramp	Chroma multiburst	Mod. 10 step	50% multiburst
Cross dot	50% white	Mod. 5 step	50% white
Pulse & bar	100% chroma	Mod. ramp	100% chroma
Multi 2T pulse	Red raster	Cross dot	Red raster
Signal outputs			
<ul style="list-style-type: none"> ●Number of outputs <ul style="list-style-type: none"> Y+S 1, BNC, 75 Ω Chroma 1, BNC, 75 Ω Composite 2, BNC, 75 Ω Black burst 1, BNC, 75 Ω Trigger 1, BNC, composite trigger in case output impedance is more than 470 Ω ●Output levels <ul style="list-style-type: none"> Luminance 0.714 Vp-p ±2% (100% reference signal) <ul style="list-style-type: none"> Variable range -6 to +3 dB Chroma 0.714 Vp-p ±2% (100% chroma signal) <ul style="list-style-type: none"> Variable range -6 to +3 dB Sync 0.286 Vp-p ±2% <ul style="list-style-type: none"> Variable range 0 to 0.6 Vp-p Color burst 0.286 Vp-p ±2% <ul style="list-style-type: none"> Variable range -6 to +3 dB (simultaneously variable with the chroma signal) ●Rated specifications of internal sync signal <ul style="list-style-type: none"> Line frequency 15.734 kHz Field frequency 59.94 Hz Horizontal sync signal width 4.7 μs ±0.1 μs Vertical sync signal width 3 H Horizontal blanking width 10.9 μs ±0.2 μs Vertical blanking width 20 H Serrated pulse width 4.7 μs ±0.1 μs Equalizing pulse width 2.4 μs ±0.1 μs Horizontal front porch width 1.5 μs ±0.1 μs Vertical front porch width 3 H Color burst width 2.5 μs ±0.1 μs (9 cycles) Subcarrier frequency 3.579545 MHz ±20 Hz SCH phase ±10° Note: SCH is applicable only when the standard value level (1.0 Vp-p) is selected. 		<ul style="list-style-type: none"> ●Number of outputs <ul style="list-style-type: none"> Y+S 1, BNC, 75 Ω Chroma 1, BNC, 75 Ω Composite 2, BNC, 75 Ω Black burst 1, BNC, 75 Ω Trigger 1, BNC, composite trigger in case output impedance is more than 470 Ω ●Output levels <ul style="list-style-type: none"> Luminance 0.700 Vp-p ±2% (100% reference signal) <ul style="list-style-type: none"> Variable range -6 to +3 dB Chroma 0.700 Vp-p ±2% (100% chroma signal) <ul style="list-style-type: none"> Variable range -6 to +3 dB Sync 0.300 Vp-p ±2% <ul style="list-style-type: none"> Variable range 0 to 0.6 Vp-p Color burst 0.300 Vp-p ±2% <ul style="list-style-type: none"> Variable range -6 to +3 dB (simultaneously variable with the chroma signal) ●Rated specifications of internal sync signal <ul style="list-style-type: none"> Line frequency 625 kHz Field frequency 50 Hz Horizontal sync signal width 4.7 μs ±0.2 μs Vertical sync signal width 2.5 H Horizontal blanking width 12.0 μs ±0.3 μs Vertical blanking width 25 H Serrated pulse width 4.7 μs ±0.2 μs Equalizing pulse width 2.35 μs ±0.1 μs Horizontal front porch width 1.5 μs ±0.3 μs Vertical front porch width 2.5 H Color burst width 2.25 μs ±0.2 μs Subcarrier frequency 4.433618 MHz ±20 Hz SCH phase ±10° Note: SCH is applicable only when the standard value level (1.0 Vp-p) is selected. 	
Genlock function			
<ul style="list-style-type: none"> ●Input signal (VBS input) <ul style="list-style-type: none"> VBS or black burst signal is used as an external sync signal. Sync signal input level 0.286 Vp-p ±6 dB Color burst input level 0.286 Vp-p ±6 dB Input impedance 75 Ω (loop-through) 		<ul style="list-style-type: none"> ●Input signal (VBS Input) <ul style="list-style-type: none"> VBS or black burst signal is used as an external sync signal. Sync signal input level 0.300 Vp-p ±6 dB Color burst input level 0.300 Vp-p ±6 dB Input impedance 75 Ω (loop-through) 	

