

Analog Generator

SPG271

Characteristics



SPG271 PAL Sync Generator.

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SPG-271 Rear Panel

SPG271 rear panel.

Color Bar Generator

Luminance Amplitude Accuracy - $\pm 1\%$.

Frequency Response - $\pm 1\%$ to 5 MHz.

Chrominance to Luminance Gain - $\pm 1\%$.

Chrominance to Luminance Delay - ≤ 5 ns.

SCH Phase -

Jitter: < 1 ns.

Drift: < 1 ns.

Nominal: $0^\circ \pm 5^\circ$.

Line Blanking - $12.05 \mu\text{s}$.

Output Impedance - 75 Ohm.

Return Loss - ≥ 36 dB to 5 MHz.

Option 01 Output

Color Bars - 75% and 100% full field.

Phasing - Within 2° of the primary color bar output.

Character Identification -

12 characters, 7 x 9 matrix.

Audio Tone -

Amplitude: 0 to +8 dBu, user adjustable.

Frequency: 500 Hz or 1 kHz, user selectable.

Distortion: $\leq 0.01\%$.

Sync Generator

Subcarrier Output -

Frequency: 4.43361875 MHz.

Stability: ± 1 Hz over temperature; typically less than 1 ppm per year drift after initial aging.

Amplitude: 2 V ± 0.2 V.

Return Loss: 30 dB to 4.43 MHz.

Black Burst Output -

Phasing: Within 2° of the color bar output.

Line Blanking: $< 11.2 \mu\text{s}$.

Pulse Outputs (General Characteristics) -

Amplitude: 2 V ± 0.2 V (4 V selectable).

Impedance: 75 Ohm.

Return Loss: ≥ 30 dB to 5 MHz.

Risetime: 250 ns ± 50 ns.

Pulse Outputs (Signals) -

Sync: mixed line and field.

Blanking: mixed line and field.

Line: 11.84 $\pm 0.1 \mu\text{s}$

(11.6 or 12.1 selectable).

Field: 25 lines (24 selectable).

Burst Flag

PAL Pulse: H/2 squarewave; selectable polarity; factory set high for 135°.

Pulse Outputs (Signals) -

Frame Reference: selectable pulse or squarewave.

Pulse: low for line 7, field 1.

Squarewave: low for fields 1 through 4.

The Frame Reference output may be user configured to provide a second comp sync output.

Pulse Outputs (Timing Range) -

3.5 μ s advance and delay relative to the color bar, black burst, and subcarrier outputs.

Genlock

Genlock Input -

Configuration: 75 Ohm loopthrough.

Return Loss: \leq 40 dB to 5 MHz.

Burst Amplitude: 300 mV \pm 6 dB.

Sync Amplitude: 300 mV \pm 6 dB.

Burst Lock Range - 4.43361875 MHz \pm 20 Hz.

Jitter -

Color Lock: \leq 0.4 typical.

Monochrome Lock: \leq 10 ns.

Genlock Timing Range -

Line: 7 μ s advance and delay.

Field: 1 line advance and delay.

Power Source

Mains -

Voltage Range: 90 to 132 VAC or 180 to 250 VAC.

Frequency Range: 48 to 62 Hz.

Power Consumption -

40 W typical, 60 W maximum.

Environmental

Temperature -

Operating: 0° to 50°C.

Nonoperating: -40 to 65°C.

Certifications

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

Safety - Approved to: UL1244,

CAN/CSA-C22.2 No.231.

Complies with: HD401 S1, IEC 348.

Physical Characteristics

Dimensions	mm	in.
Height	44	1.734
Width	483	19
Depth	561	22.1
Weight	kg	lb.
Net	6.14	13.5
Shipping	10.4	22.9

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