

TPG-171p

Test pattern generator



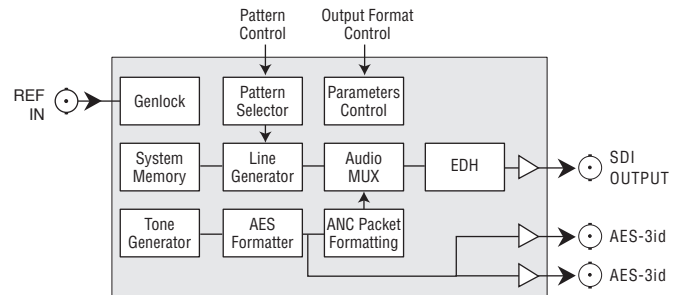
The TPG-171p Test Pattern Generator provides 10-bit resolution SDI output in 525-line or 625-line formats. An error detection (EDH) signal can be inserted in the ancillary data area and up to 32 test patterns can be generated. An audio tone can also be embedded in the serial digital output. The output can be genlocked to a composite analog reference or left free running. All of the principal controls are accessible on the top of the device. Two AES-3id audio outputs are also provided. A low powered, compact device with the features of a professional signal generator.

KEY FEATURES AND BENEFITS

- › SDI output (270 Mbps) in 525-line (60 Hz) or 625-line (50 Hz) format
- › Reference input (NTSC / PAL) to genlock the digital output
- › Free running mode when the reference is not present (170M SMPTE ± 10 Hz)
- › Over 32 test patterns with 10-bit precision
- › Single and multiple line patterns to allow complex pattern generation
- › One complete group with 20-bit or 24-bit (AES-EBU 1+2) embedded audio tone selectable by a dip switch. Continuous tone for right channels and intermittent for left channels.
- › EDH insertion: active picture and full field
- › Y, Cb, Cr control
- › Fixed Time Code insertion



Test pattern samples



TPG-171p Functional Block Diagram

TECHNICAL SPECIFICATIONS

Pattern types: SMPTE color bars

- Ramp
- Light blue shallow ramp
- Field square wave
- Full and reduced amplitude sweeps
- Digital/analog blanking markers
- Color bars (100 % and 75 %)
- Limit ramp
- Shallow ramp
- Co-siting verification
- Bowtie timing
- Digital gray
- Shallow ramp matrix
- Multipulse
- Flat field
- Super black
- Pathological test pattern
- 5-step
- Multiburst

INPUT

REF input: SMPTE 170M/PAL ITU 624-4 or 2 Vp-p/4 Vp-p composite sync
Return loss: >35 dB up to 5.75 MHz

OUTPUT

Signal: SDI SMPTE 259M-C (270 Mbps)
Return loss: >15 dB up 270 MHz
Jitter: <0.2 UI (0.74 ns) p-p

PROCESSING PERFORMANCE

Signal path: 10 bits
Embedded audio: 20 and 24 bits
Frequency precision: ± 10 Hz

Electrical

Voltage: 5 VDC
Power: 1.5 W

AUDIO EMBEDDING PERFORMANCE (AES)

Signal: AES-3id SMPTE 272M
Sampling frequency: 48 kHz
Tone amplitude: -18 dBFS or -20 dBFS

ORDERING INFORMATION

TPG-171p

Test pattern generator

Accessories

LKS-WSU
pico-PA
pL-Tray

Power supply for 110 V or 220 V
12 V to 5 V power adaptor
40 W rack mounted tray for up to 10 picoLinks