The 408NPS is a Pattern Generator that conforms to NTSC, PAL, and SECAM systems. The video sweep and multiburst signal functions are used to check the frequency characteristics of video equipment. In addition, the all-channel, synthesized RF output enables to adjust and check TV and VTR with TV-band tuners. The GENLOCK and black burst functions also facilitate pattern generator use as a sync signal source for various types of video equipment. The RF frequency can be set directly from the panel or the applicable country, band, and channel can be selected from internal data.

• The video sweep frequency can be selected from 100 kHz to 15 MHz in two bands. There are six markers in band 1 and seven markers in band 2. The markers can be turned on and off at the same time.

• The GENLOCK function enables generator synchronization with another pattern generator.

• The sync, burst (NTSC and PAL systems), luminance, and chrominance (SECAM system: subcarrier level variable), and setup (NTSC system) levels can be changed independently.

• There are 13 basic patterns including SMPTE color bar and convergence patterns. The luminance, chrominance, and RGB signals can be turned on and off. And the circle pattern and moving marker synthesizing functions can be used with the basic pattern to generate various patterns. (SECAM system: no DEM pattern)

The signal generator can separately output such video signals as composite video, RF, black burst, and composite sync signals.

The RF output covers all VHF, UHF, and Cable TV channels and includes most of the necessary broadcast channel data.

• Sound modulation of 400 Hz or 1 kHz can be applied to RF output. The 400 Hz and 1 kHz audio outputs are used to check sound circuit.

• The RF signal can modulate internal with patterns and sound signals, as well as external video and sound signals.

• The 8-pin digital RGB, 21-pin RGB multi-conconnector and Y/C (s connector) are provided as standard.

• Up to 100 types of panel setting can be stored in memory and the memory recall area can be specified. (memory with battery backup)

• The remote function provides memory address control. (memory with battery backup)

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• The GPIB interface is optionally available. (factory option)

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• The sync, burst (NTSC and PAL systems), luminance, and chrominance (SECAM system: subcarrier level variable), and setup (NTSC system) levels can be changed independently.

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Other Outputs

- Composite Sync Output
  Voltage: 4 Vp-p ± 0.5 Vp-p (into 75 Ω load)
- Burst Flag/Color Blanking Output
  Voltage: 4 Vp-p ± 0.5 Vp-p (into 75 Ω load)
- Y, V, DRIVE Output
  Voltage: 4 Vp-p ± 0.5 Vp-p (into 75 Ω load)
- TTL Output
  RGB Output: Fan out 1 (negative logic)
  H, V, SYNF: Fan out 1 (positive logic)
- Y/C
  Voltage: NTSC: 1 Vp-p ± 0.28 Vp-p (into 75 Ω load)
  PAL: 1 Vp-p ± 0.28 Vp-p (into 75 Ω load)
  SECAM: 1 Vp-p ± 0.28 Vp-p (into 75 Ω load)

Other Outputs (cont.)

- EXT VIDEO Input
  Frequency: 50 Hz to 100 kHz
  Input Voltage: 1 Vp-p (into 10 kΩ load)
- EXT SOUND
  Frequency: 50 Hz to 100 kHz
  Input Voltage: 1 Vp-p (into 10 kΩ load)

Other Outputs (cont.)

- GENLOCK Input
  Input Type: 75 Ω loop-through
- Burst Signal Input
  Input Range: NTSC: 0.286 Vp-p ± 3 dB
  PAL: 0.3 Vp-p ± 3 dB

Other Outputs (cont.)

- Cast: 286 mV±3 dB (sync signal amplitude)
  SECAM: 300 mV±3 dB (sync signal amplitude)
- Subcarrier Lock Range: NTSC: 3.579545 MHz to 150 Hz
  PAL/SECAM: 3.579545 MHz to 150 Hz
- Subcarrier Phase: 0° to 360° (continuously variable)
- GENLOCK: Horizontal and vertical sync

Other Outputs (cont.)

- EXT Sounding
  Frequency Range: 50 Hz to 100 kHz
  Input Voltage: 1 Vp-p (into 10 kΩ load)
  Input Impedance: 10 kΩ

Other Outputs (cont.)

- ENVIRONMENTAL CONDITIONS
  Operating Temperature: 0° to 40°C
  Operating Humidity: ≤ 90 % RH (without condensation)

Other Outputs (cont.)

- Power Requirements
  Voltage: 100, 120, 220, or 240 VAC ±10 % (changeable, maximum input voltage: 250 V by internal tapping)
  Current: 0.6 A (100 V), 0.3 A (120 V), 0.18 A (220 V), 0.12 A (240 V)
  Dimensions: 426 (W) × 88 (H) × 400 (D) mm
  Weight: Approx. 8 kg
  Accessories: BNC BNC cable (3C-2V, 1 m) ……..1
  Power cord ……..1
  Instruction manual ……..1

Refer to the 408NPS specifications for details of the 408.