

# VG22G1

## TELEVISION INSTRUMENTS

### DATA MULTIPLEX SIGNAL GENERATOR



#### General

The VG22G1 is an NTSC data MPX signal generator conforming to Japan's teletext and inter-text MPX broadcasting systems. Teletext and inter-text MPX signals generated in this unit is superimposed on horizontal blanking period of video (VBS) signal which is supplied from the external source, and the resulting signal is output. In the same way, user's custom MPX signal can be saved in the built-in RAM via GP-IB interface, enabling the VG22G1 to output a wide variety of teletext and inter-text MPX signals. Superimposing line, superimposing position and data output level of data MPX signals can be set to any desired value by using the panel controls. In addition, having nine pictures of teletext signals and two pictures of inter-text MPX signals, the VG22G1 is also usable as a standalone signal generator for comprehensive development, manufacture and inspection of equipment designed for teletext broadcast and data MPX broadcast which mainly uses inter-text signals.

#### Features

- Testing similar to the actual broadcast can be performed by using eight output line.
- Nine pictures of teletext signals usable. (VITS "A" )
- Two pictures of inter-text MPX signals are incorporated. (VITS "B" )
- One picture of video (VBS) signal is incorporated. (stair step waveform)
- User-developed teletext and inter-text MPX signals can be saved in the built-in RAM's (VITS "A" to "H" ).
- The contents saved in the data RAM are backed up by the battery.
- Superimposing lined of MPX signals can be set from the 10 H (273 H) to the 21 H (284 H) for each of VITS "A" to "H" .
- Output level of MPX signals can be set in a range of  $\pm 20\%$ .
- Superimposing position for horizontal sync signal can be set in a range of  $\pm 0.35 \mu\text{s}$ .
- GP-IB interface is a standard equipment.

#### Specifications

- External input signal
  - Color system NTSC-M
  - Number of inputs 1
  - Connector type BNC, 75  $\Omega$ , roop-through
  - Input level 1.00 Vp-p  $\pm 6$  dB, VBS
- Output signals
  - Video signals
    - External input signal or internally generated stair step signal
    - Number of outputs 2
    - Connector type BNC, 75  $\Omega$ , unbalanced
    - Output level 1.00 Vp-p  $\pm 0.5$  dB  
(Input-versus-output level ratio=1:1)
    - Frequency response  $\pm 0.5$  dB, 6MHz (714.3 mVp-p =0.0 dB)
    - S/N ratio  $\leq -40$  dB
  - Teletext and data signals
    - Output level 0: 0Vp-p  $\pm 0.5$  dB  
1: 0.5Vp-p  $\pm 0.5$  dB (variable  $\geq \pm 20\%$ )
    - Data clock frequency 5.727272 MHz,  $\pm 50 \times 10^{-6}$
    - Superimposing timing 9.78  $\mu\text{s} \pm 3\%$  (variable  $\geq \pm 0.35 \mu\text{s}$ )
- Data capacity
 

VITS "A"	ROM: max. 128 kbytes (nine pictures of teletext signals are saved) RAM: max. 128 kbytes
VITS "B"	ROM: max. 128 kbytes (Two pictures of inter-text MPX signals are saved) RAM: max. 128 kbytes
VITS "C"	ROM: max. 128 kbytes RAM: max. 128 kbytes
VITS "D"	ROM: max. 128 kbytes RAM: max. 128 kbytes
VITS "E"	ROM: max. 128 kbytes RAM: max. 128 kbytes
VITS "F"	ROM: max. 128 kbytes RAM: max. 128 kbytes
VITS "G"	ROM: max. 128 kbytes RAM: max. 128 kbytes
VITS "H"	ROM: max. 128 kbytes RAM: max. 128 kbytes

## Specifications

Number of superimposing lines	Max. 8 lines	
Superimposing lines	Can be set in a range of the 10 H (273 H) to 21 H (284 H)	
• 8/5 fsc signal	Output level ≥ 2.0V (TTL)	
Connector type	BNC, 75 Ω, unbalanced	
● GP-IB interface	Setting of interting line (VITS "A" to "H" )	
	Setting of address to which the data is transferred (VITS "A" to "H" )	
	Data transfer, Memory clear, RUN	
● General Specifications		
Memory backup	By key operation, RAM data	
Backup time	Approx. 500 hours after the battery is fully charged	
Backup power supply	Ni-Cd battery	
Power supply	AC 90 to 250 V ± 10%, 50Hz/60Hz	
Power consumption	Max. 35 VA	
Operating temperature range	0~40°C	
Relative humidity	25% to 90% RH (non-dewing)	
Dimensions	426 (W) x 149 (H) x 460 (D) mm	
Weight	Approx. 12 kg	
Accessories	Power cord	x 1
	3P-2P conversion connector	x 1
	Use's manual	x 1

Discontinued