

NTSC/PAL Video Signal Analyzers

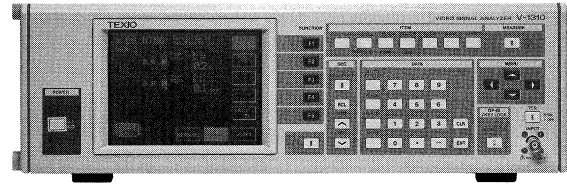
V-1310

NTSC/PAL Video Signal Analyzer

V-1310V1

NTSC/PAL Video Signal Analyzer with noise measurement function

- Compatible with both NTSC/PAL
- High measurement accuracy of $\pm 1\%$ of full scale
- Versatile measuring modes
- Frequency characteristic measurement
- Y/B-Y/R-Y color difference component signal inputs are provided as standard
- 320 x 240 dot large sized LED display
- Versatile computations
- Monitor output with measurement point cursors
- Auto set-up of the measurement points
- 100 sequence memory
- Noise Measurement (V-1310V1 only)
- GO/NO-GO Judgment
- GP-IB is provided as standard



GP-IB
STANDARD

CE

(V-1310 only)

Items	Specifications	Conditions / Remarks
Inputs		
Color system	NTSC/PAL	
Signal format	Composite video signals, Y/C separate signals, G/B/R component signals, Y/B - Y/R - Y color difference component signals	
Input terminals	Composite video signals (Front: 1, rear: 1) Y/C separate signals (Rear: 1 set), G/B/R component signals (Rear: 1 set) Y/B-Y/R-Y color difference component signals (Rear: 1 set) External sync. signals (Rear: 1 set)	Loop Through 75 Ω , With ON/OFF switch 1V/4V external sync. selectable
Measurement Items		
Level	Luminance, Chrominance, Burst, Sync. (Horizontal sync.), DG	
Phase	Chrominance, DP, Burst (PAL only)	
Peak	Peak-to-peak, + peak, - peak	
Measurement Accuracy		
Video level / Phase	$\pm 1\%$ of full scale or less / $\pm 2^\circ$ or less	
Peak	$\pm 5\%$ of full scale or less	
Synchronization		
Type	Internal synchronization, External synchronization	
Synchronization level	0.15 to 0.6 V (Sync. level)	
Color burst	3.579545 MHz ± 150 Hz (NTSC), 4.43361875 MHz ± 150 Hz (PAL)	
External sync.	1 V / 4 V selectable	
Measurement Area		
Setting resolution	0.1 μ sec (horizontal), 1 line (vertical)	
Calculation Functions		
Average	Off, 2, 4, 8, 16, 32, 64 / both fields, odd field, even field	
Type of calculation	Average, maximum, minimum, maximum-minimum, ratio between 2 points, difference between 2 points	
Others	Ratio of sync. and luminance, ratio of burst and chrominance	
Outputs		
Monitor output	Measurement marker is inserted. (200 mV is added to input signals.)	
Preset		
Number of steps	100 (0 to 99)	
Data	Mode (NTSC / PAL), measurement conditions (input terminals, internal/external synchronization, measurement interval, input range, average, limit, external I/O)	
External Control I/O's		
Functions	Sequential memory recall (Up/down), Direct memory recall, External control output (8 bits \times 2), External data reading (8 bits \times 1), Limit judgment output Automatic sequence start & stop, Automatic sequence limit judgment output	
Others		
GP-IB functions	Panel status, Measured value output, Memory dump function, Memory synchronization function	
Prints out functions	Measured data, memory list	Centronics Standards.
Dimensions & weight	W \times H \times D = 426 (426) \times 133 (148) \times 485 (506) mm, approx. 15 kg	
Power source	100/120/220/230 VAC $\pm 10\%$, 50/60 Hz, 40 W (MAX.)	
Specification-guaranteed range	10°C to 35°C, 85% RH or less (without condensation)	
Operation-guaranteed range	0°C to 50°C, 85% RH or less (without condensation)	

V-1310V1 only

Noises measurement		
S/N	Luminance noises, Chrominance AM noises, Chrominance PM noises	
Measurement range	8 to 80 dB (Luminance noises), 18 to 70 dB (Chroma noises)	
Measurement area	H/2	
Correction (ILC)	50% white (NTSC: 357 mV, PAL: 350 mV), 100% white (NTSC: 714 mV, PAL: 700 mV)	
HPF	100Hz, 1kHz, 10kHz, 100kHz, 200kHz	Luminance Noises
LPF	500kHz, 1MHz, 3MHz, 4.2MHz, 5MHz, OFF (Through)	
Others	fsc trap, weighting (CCIR 567)	
Sag	Horizontal, Vertical	
Correction (ILC)	Red (NTSC: 626 mV, PAL: 664 mV), 100% chroma (NTSC: 714 mV, PAL: 700 mV)	
fsc sync. range	3.579545 MHz ± 150 Hz (NTSC), 4.43361875 MHz ± 150 Hz (PAL)	Chrominance AM noises
HPF	100Hz, 1kHz, 10kHz, 100kHz, 200kHz	Chrominance PM noises
LPF	500kHz, 1MHz	