

Video Analyzer VTA71

25 Hz to 10 MHz

**General-purpose video analyzer
with oscilloscope and
vectorscope function (PAL)**



Photo 41081

Brief description

Video Analyzer VTA71 sets new standards for the combination of video analyzer, oscilloscope and vectorscope that comes in one compact cabinet 1/2 19" wide and 3 units high. It is ideal for all TV applications:

- Monitoring of multiple video signals
- Ideal for studios – eg setting up of TV cameras, measurement and broadcasting vehicles, monitoring of broadband communications equipment, research and development labs, TV set and video recorder production, service centers
- VTA 71 is an ideal complement to the Rohde & Schwarz Video Analyzer UAF

A variety of inputs and a large choice of measurement functions provide high monitoring flexibility for

- differential phase
- differential gain
- lowpass and chroma filters

The innovative combination of analog and digital signal processing provides the fidelity of analog resolution with the unequalled accuracy of digital measurements.

Main features

- Four CCVS loopthrough inputs
- Analog signal display as waveform parade, nine signals simultaneously, overlays
- SC/H phase display (patent)
- Digital line selector
- On-screen digital readouts
- Four cursors
- Two operating levels
- Great ease of operation
- 3D display (patent)
- Storage of 20 instrument settings
- Remote control: RS-232-C/RS-422

Specifications in brief

Vertical deflection

Frequency response	±0.1 dB referred to 50 kHz
25 Hz to 10 MHz	±1 dB
14 MHz	<1% FLAT
Lowpass filter (luminance)	40 dB
Attenuation at f_{sc}	9 MHz (−3 dB)
Line selector bandwidth	max. 1% between FLAT and chroma
Level variation at 4.43 MHz	<1° in FLAT mode and using \sin^2 pulse-and-bar signal
Transient response	0.99:1 to 1.01:1
Pulse-to-bar-ratio	≤1%
Tilt with field rate squarewave or window signal	±3.5 V (DC + AC peak)
or 25 μs pulse signal	100 kΩ <10 pF (unterminated)
Max. absolute input level	>40 dB, DC to 6 MHz
Input impedance	−6 dB to +14 dB
Return loss (75 Ω)	
Variable gain range	

Horizontal deflection

Vertical sweep magnification	x1, x5, x10, x50
Horizontal sweep magnification	x1, x5, x10, x50
Line select	3 independent, each capable of displaying: any line of any single field, or all odd or even fields, or all fields

DC restoration

back porch

Video output (monitoring output)

Frequency response	±3 dB, DC to 10 MHz
Differential gain	2% at 50% APL with 1 V display
Differential phase	3° at 50% APL with 1 V display
Amplitude	1 V ±10% for 1 V input
Return loss	>40 dB, DC to 5 MHz

Synchronization

Internal reference	composite video or black burst with sync and burst amplitudes of 286 mV ±6 dB
Vector mode	composite video or black burst with sync and burst amplitudes of 286 mV ±6 dB
Input impedance	100 kΩ <10 pF (unterminated)

Vector mode

Chrominance bandwidth (3 dB), lower/upper limit frequency	3.88 MHz/4.98 MHz ±150 kHz
Phase control range	infinite
Vector tolerance	≤1°
Differential gain	≤1%
Differential phase	≤1°
Variable gain range	−6 dB to +14 dB
Gain instability (0 to 50 °C)	<2% (for ±5% variation of nominal AC supply voltage)

Subcarrier regenerator	phase-locked to subcarrier with burst signal as reference
Nominal frequency	4.433619 MHz
Pull-in range	±50 Hz

Measurement accuracy in multiple display mode

Waveform overlays (x10), relative (referred to 700 mV)	±100 ns, ±1%
Vector overlays, relative (referred to 700 mV)	±1°, ±1%

CRT	8 cm x 10 cm, internally etched graticule with variable scale illumination; scales for waveform and vector display
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General data

Power supply	110/120 V (90 V to 132 V) or 220/230 V (180 V to 264 V); jumper-selectable, 48 Hz to 66 Hz (125 VA)
Rated temperature range	0 °C to +50 °C
Dimensions (W x H x D); weight	216 mm x 134 mm x 451 mm; 8.2 kg

Ordering information

Video Analyzer (PAL)	VTA71	1062.5090.02
Extras		
Portable case with handle and sunshield	VTA-Z1	1062.5390.00
Double adapter with one blank panel for mounting in 19" racks	VTA-Z2	1062.5419.00