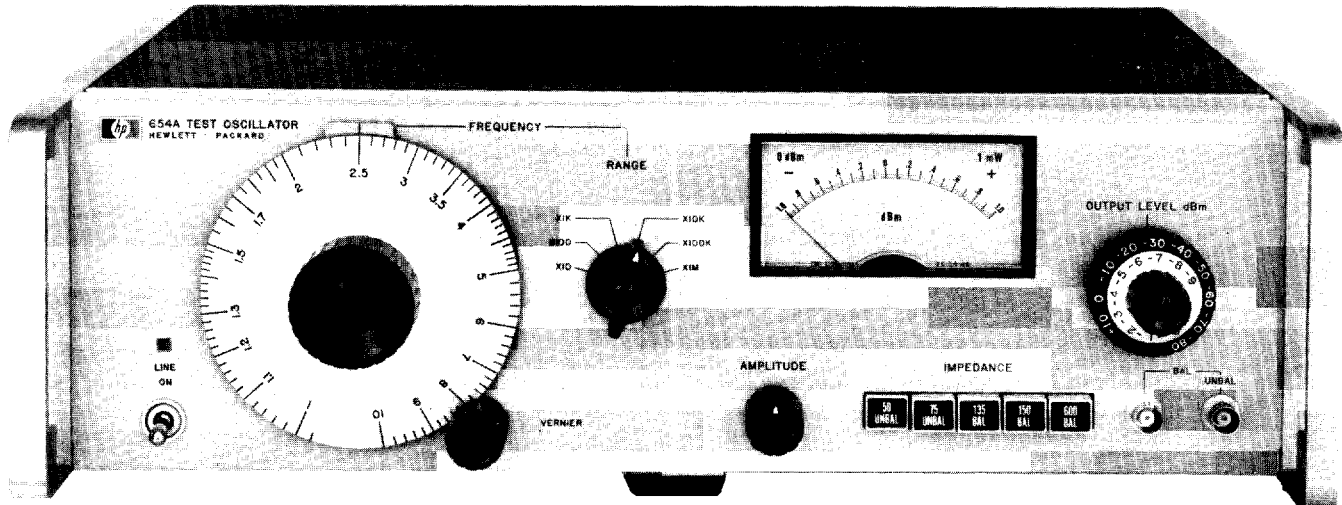




Advanced Test Equipment Rentals

www.atecorp.com 800-404-ATEC (2832)



654A

Specifications & General Information

MODEL NO.	651B	652A	654A
Description	Amplitude and frequency stability of this solid state capacitance-tuned test oscillator provides high quality signals for general purpose lab or production measurements.	Similar to Model 651B, HP's Model 652A offers an expandable output monitor for amplitude control to 0.25% across its entire frequency band for greater output and resettability.	Similar to the 651B Test Oscillator, HP's 654A has balanced outputs of 135 Ω, 150 Ω, and 600 Ω, automatic leveling over entire frequency range, and expanded meter.
Frequency Range	10 Hz to 10 MHz, 6 bands.		
Frequency Accuracy	±2%, 100 Hz to 1 MHz; ±3%, 10 Hz to 100 Hz and 1 MHz to 10 MHz.		±2% 100 Hz to 5 MHz; ±3% 10 Hz to 100 Hz; ±4% 5 MHz to 10 MHz.
Frequency Response (Flatness)	±2%, 100 Hz to 1 MHz; ±3%, 10 Hz to 100 Hz; (±4%, 1 MHz to 10 MHz applies only at 50 Ω or 75 Ω output and amplitude readjusted to a reference on the output monitor.)	±0.25%, 3 V and 1 V range; ±0.75%, 0.3 V to 0.3 mV range; ±1.75%, 0.1 mV range. (Amplitude readjusted using expanded scale on output monitor).	(±10 dBm and 0 dBm, 1 kHz ref) ±0.5% from 10 Hz to 10 MHz for unbalanced outputs and 10 Hz to 5 MHz for 135 Ω and 150 Ω outputs, and 10 Hz to 1 MHz for 600 Ω output.
Distortion	<1%, 10 Hz to 2 MHz; <2%, 2 MHz to 5 MHz; <4%, 5 MHz to 10 MHz.		10 Hz to 1 MHz, >40 dB below fundamental; 1 MHz to 10 MHz, >34 dB below fundamental.
Output	3.16 V into 50 Ω or 600 Ω; 6.32 V open circuit. 0.1 mV to 3.16 V full scale, 10 steps in 1, 3, 10 sequence; -70 dBm to +23 dBm (50 Ω output) full scale. 10 dBm per step; 20 dB coarse and fine adjustable amplitude control.		+11 dBm to -90 dBm, 10 dB and 1 dB steps with adjustable ±1 dB meter range, calibrated for each impedance of 50 Ω and 75 Ω unbalanced and 135 Ω, 150 Ω and 600 Ω balanced.
Output Monitor (Monitor's Level at input of attenuator)	Top scale calibrated in volts, bottom scale in dB. Accuracy ±2% of full scale.	Same as 651B plus Expand Scale which expands reference voltage of the normal scale from 0.9 to 1.0 or 2.8 to 3.2	±1 dBm of full scale with 0.02 dB resolution. Accuracy ±0.05 dB.
Output ^a Connectors	BNC connectors.		
Attenuator	90 dB range in 10 dB steps; ±0.075 dB, -60 dBm to +20 dBm; ±0.2 dB, -70 dBm to -60 dBm.		99 dB range in 10 dB and 1 dB steps; ±1.5% (0.13 dB) except ±10% (1 dB) at output levels below 60 dBm at frequencies >300 kHz.
Temperature Range	0°C to +50°C (32°F to 122°F).		0°C to +55°C (32°F to 130°F)
Power	115 V ±10%, 48 Hz to 440 Hz; 230 V ±10% 48 to 66 Hz; 35 VA max.		
Weight	Net, 7.6 kg (17 lb). Shipping, 9.90 kg (22 lb).		Net, 9.4 kg (21 lb). Shipping, 11.8 kg (26 lb).
Dimensions	133 mm H x 425 mm W x 337 mm D (5.21" x 16.75" x 13.25").		
PRICE	\$1460	\$1665	\$1865

^aMaximum dc voltage that can be applied to output: < ±3 V p.