

SG 504



Signal Generator

SG 504

Leveled, Variable Output

245 MHz to 1050 MHz

Frequency Modulation Capability

The SG 504 Signal Generator provides a leveled output amplitude that is variable from 245 MHz to 1050 MHz in two bands. Frequency is indicated by a high-resolution tape dial that expands each band over 28 inches. The accurately calibrated output voltage is variable from 0.5 V to at least 4.0 V peak-to-peak into 50 Ω .

Frequency Range — Low band: 245 MHz to 550 MHz High-band: 495 MHz to 1050 MHz, plus 50 kHz or 6 MHz reference frequency (internally selected).

Frequency Accuracy — $\pm 2\%$ of dial indication.

Amplitude Range — 0.5 V to at least 4.0 V p-p.

Amplitude Accuracy — (at reference) Within 3% of indicated amplitude.

Flatness — $\pm 4\%$ of amplitude at reference frequency.

Harmonic Content — 2nd harmonic at least 25 dB down; 3rd and all higher at least 40 dB down.

Fm Input — Frequency range: dc to 100 kHz. Deviation sensitivity: ± 9 V produces from $\pm 0.05\%$ to $\pm 0.4\%$ deviation of carrier, depending on output frequency.

Frequency Monitor Output — ≥ 0.3 V p-p into a 50 Ω load from 245 MHz to 1050 MHz.

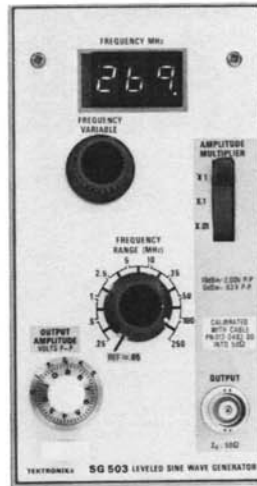
Rear Card Edge Connections — Address fm input, frequency monitor output, and amplitude control.



ORDERING INFORMATION

SG 504 Signal Generator (Includes Leveling Head)	\$3030
Replacement Leveling Head, (015-0282-00)	\$375

SG 503



Signal Generator

SG 503

Leveled, Variable Output

250 kHz to 250 MHz

Digital Readout of Frequency

The SG 503 Signal Generator is a general-purpose leveled sine-wave oscillator. It provides a leveled output amplitude which is variable from 250 kHz to 250 MHz. The selected frequency is indicated by a built-in autoranging frequency counter with a three-digit LED read-out on the front panel. Accurately calibrated output voltage into 50 Ω is variable from 5 mV to 5.5 V peak-to-peak.

Frequency Range — 250 kHz to 250 MHz, plus 50 kHz reference frequency.

Accuracy — Within ± 0.7 of least significant digit of indicated frequency.

Amplitude Range — 5 mV to 5.5 V p-p into 50 Ω termination in three decade ranges.

Amplitude Accuracy — (50 kHz reference) Within 3% of indicated amplitude on (X1) range, 4% on (X0.1) range, and 5% on (X0.01) range.

Flatness — (p-p) From 250 kHz to 100 MHz, output amplitude will not vary more than 1% of the value at 50 kHz except that up to +1.5%, -1% variation may occur between 50 MHz and 100 MHz on amplitude multiplier X0.1 and X0.01 ranges only. From 100 MHz to 250 MHz, amplitude variation is within 3% of the value at 50 kHz.

Harmonic Content — Second harmonic at least 35 dB down. Third and all higher harmonics at least 40 dB down.

Other — Rear edge card connection available to address the leveling circuit.

Standard Accessory — Precision 50 Ω cable 3 ft long. (012-0482-00).

Order SG 503 Signal Generator \$1780

Tektronix offers maintenance training classes on the TM 500 Calibration Systems Package and a new multimedia training package on Digital Counter and Meter Concepts. For TM 5000 training and other training information, contact your local Sales Office or request a copy of the Tektronix Customer Training Catalog.

SG 502



Oscillator

SG 502

5 Hz to 500 kHz Sine and Square Waves

Low Distortion Sine Wave

5 V RMS Open Circuit—600 Ω Source

0-40 dB Output Variable Plus 0-70 dB in 10 dB Steps

The SG 502 Oscillator features a wide frequency range of 5 Hz to 500 kHz with low distortion (0.035% between 20 Hz and 50 kHz) and is desirable for general test purposes where the extremely low distortion levels of the SG 505 are not required. Other SG 502 features include 70 dB amplitude control plus a simultaneous fixed amplitude squarewave.

SINEWAVE

Frequency Range — 5 Hz to 500 kHz in 5 decade steps. Accurate within 5% of dial setting from 5 Hz to <50 kHz; within 10% of dial setting from 50 kHz to 500 kHz.

Amplitude Response — Flatness is 0.3 dB over entire range (1 kHz reference).

Attenuation — Selectable from 0 dB to 70 dB in 10, 20, and 40 dB steps with pushbuttons. Accurate within 0.2 dB for each step selected, additive. An uncalibrated control provides continuous variation from 0 dB to -40 dB.

Harmonic Distortion — <0.035% (-70 dB) from 20 Hz to 50 kHz. <0.15% from 50 kHz to 500 kHz ($R_L \geq 600 \Omega$).

Max Output Voltage — 5 V RMS open circuit; 2.5 V RMS into 600 Ω .

Output Impedance — 600 Ω , grounded.

SQUAREWAVE

Frequency Range — Same as sinewave. The squarewave switches on the 0° phase of sine out.

Rise and Fall Time — 50 ns or less.

Amplitude — +5 V, fixed, open circuit.

Output Impedance — 600 Ω , grounded.

SYNC INPUT

Oscillator can be synchronized to external signal. Sync range, the difference between sync frequency and set frequency, is a linear function of sync voltage.

Input impedance — 10 k Ω .

Order SG 502 Oscillator \$730