

## FG 5010

**GPIB**  
 IEEE-488

The FG 5010 complies with IEEE Standard 488.1-1987, and with Tektronix Standard Codes and Formats.

- 0.002 Hz to 20 MHz
- Up to 20 V p-p From 50  $\Omega$
- Sine, Square, Triangle, Pulse, and Ramp Waveforms
- 10 ns Rise/Fall
- 10 to 90% Variable Symmetry in 1% Steps
- Trigger, Gate, Counted Burst
- Phase Lock, With Autoscan
- AM, FM, VCF
- Waveform Complement

The FG 5010 Programmable Function Generator provides waveform generation from 0.002 Hz to 20 MHz. It provides not only the conventional sine, square, triangle, pulse and ramp waveforms, but also incorporates variable symmetry which is usable throughout the frequency range and extends pulse and ramp capabilities beyond those of conventional generators. The FG 5010 also provides trigger, gate counted burst, phase lock, AM, FM, and VCF modes. Variable phase enhances the trigger, gate, burst, and phase-lock modes.

All functions are fully programmable either from the front panel or over the GPIB. The ability to store up to 10 complete front panel settings reduces programming requirements and enhances stand alone capability.

The FG 5010 maintains frequency accuracy within 0.1% over its full 0.002-Hz to 20-MHz frequency range. Automatic phase lock to an external signal is possible from 20 Hz to 20 MHz. Waveform complement and  $\pm$  trigger slope allow interfacing to circuits with the proper waveform phase, especially important in pulse and digital applications. Waveform hold can freeze the output voltage of any 200-Hz or less waveform at its instantaneous value. With the output amplitude set to zero volts, the dc offset can be programmed to provide a dc voltage source of 0 to  $\pm 7.5$  V in 10-mV steps.

### CHARACTERISTICS

**Symmetry**—10 to 90%, 1% steps,  $\pm 2\%$  accuracy. Range above 4 MHz is limited by 25-ns minimum triangle transition time (decreases to 50% at 20 MHz).

**Frequency**—Range: 0.002 Hz to 20 MHz. Accuracy: Continuous mode,  $\pm 0.1\%$ . Trigger, Gate, Burst Modes: Frequency  $\leq 200$  Hz,  $\pm 0.1\%$ ; frequency  $> 200$  Hz,  $\pm 5.0\%$ . Resolution: Continuous mode, 4 digits, Trigger, Gate, Burst modes. Frequency  $\leq 200$  Hz, 4 digits. Frequency  $> 200$  Hz, 3 digits.

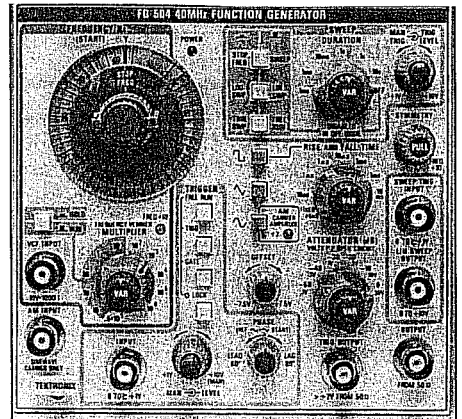
**Amplitude**—Range: 20 mV to 20 V p-p From 50  $\Omega$  (into open circuit).

#### GENERAL

**Power Consumption**—60 W.  
**IEEE Standard 488.1 1987 Interface Function Subsets Implemented**—SH1, AH1, T6, L4, SR1, RL1, PP0, DC1, DT1, CO.

### ORDERING INFORMATION

FG 5010 20 MHz Function Generator. \$3,995  
 Includes: Instruction manual (070-3467-01); Instrument Interfacing Guide (070-4613-00); Reference Guide (070-3561-00).



## FG 507

- 0.02 Hz to 2 MHz
- Includes All FG 501A Features
- Logarithmic or Linear Sweep
- Separate Start/Stop Frequency Dials
- Sweep Up or Down
- Sweep and Hold
- Manual Sweep

The FG 507 features the same basic performance as the FG 501A and adds flexible, easy-to-use log- and linear-sweep capability.

The log sweep of the FG 507 is mathematically correct and allows accurate frequency plots when using log scales, log paper, or a storage oscilloscope like the SC 503. Separate start and stop frequency dials make frequency settings easy to adjust and interpret. The instrument can be internally or externally swept up or down. A third frequency control allows you to manually sweep between the preset start and stop frequencies without disturbing their settings. This is especially convenient for examining frequency and amplitude anomalies of a circuit under test or in setting start and stop points. The sweep generator can be swept and the sweep-gate output can be used to gate (burst) the generator on for swept bursts. The sweep-hold mode allows the generator to sweep to the stop frequency and remain there until released.

The accurate log/linear-sweep capability of the FG 507 plus the low distortion (0.25% over the audio range) make it ideally suited to audio testing.

### ORDERING INFORMATION

FG 507 2 MHz Function Generator. \$2,275  
 Includes: Instruction manual (070-2986-00).

## FG 504

- 0.001 Hz to 40 MHz
- Three Basic Waveforms, Plus a Wide Range of Shaping With Variable Rise/Fall Times and Symmetry Controls
- Logarithmic or Linear Sweep
- Up to 30-V P-P Output
- Built-In Attenuator
- AM and FM
- Phase-Lock Mode
- External and Manual Trigger or Gate
- Counted Burst With DD 501

The output of the FG 504 can be phase locked, gated, or triggered by a reference signal. This lets you convert from one waveform to another, such as pulses to sine waves, as well as adjusting phase relationships. Post-attenuator offset enables use of the full  $\pm 7.5$  V offset range with small signals. The FG 504 output can be swept, or amplitude or frequency modulated by external signals. In addition, the FG 504 can supply internally generated linear- or logarithmic-swept frequencies of up to a 1000:1 range with convenient control of start and stop frequencies.

The FG 504 also provides trigger output, external voltage-control input, and sweep output.

For more Function Generator characteristics, see selection guide, pages 395 and 396.

### ORDERING INFORMATION

FG 504—40-MHz Function Generator. \$3,275  
 Includes: Instruction manual (070-2655-00),  
 FG 504 T—40-MHz Function Generator. \$3,695  
 Includes: FG 504, TM 503A Mainframe, and 016, 0195-03 Blank Panel.