The FG-506 and FG-513 each provide two powerful instruments in one package for the price of one: a 6 or 13 MHz sweep/function generator and an intelligent 100 MHz frequency counter. The FG-500 series incorporates concurrent engineering design with unsurpassed innovation to ensure high quality and reliability. The microprocessor based instruments provide menudriven operations for setting waveform outputs and operation modes. Thus, setting of outputs is quick, simple and rational. Additionally, a bright 16 character by 2 line LCD display presents clear and unambiguous readout of generation (4 digit resolution) and frequency counter (6-1/2 digit resolution). A self-test is performed upon powering up to ensure all components operate correctly.

**KEY FEATURES**

- **Sine, Square, Triangle, Ramp, Synchronous Clock and DC Outputs**
- **Frequency Ranges:**
  - 2 Hz to 6 MHz (FG-506)
  - 2 Hz to 13 MHz (FG-513)
- **Synchronous Clock Frequencies:**
  - 2 Hz to 12 MHz (FG-506)
  - 2 Hz to 24 MHz (FG-513)
- **6-1/2 Digit Frequency Counter with attenuation (x1, x20) and low pass filter**
- **Linear and Logarithmic Sweeps**
- **Adjustable Symmetry/Duty Cycle**
- **Continuous, Triggered, Gated, Clock & External Frequency Modes**
- **Period or Frequency Readout**
- **TCXO Crystal Stabilized Time Base (option)**
ADVANCED FEATURES-GO THE EXTRA MILE

A wide variety of modes (Continuous, triggered, gated, clock and external frequency) and waveforms deliver the maximum amount of benefits and applications. Additionally, several advanced features offer extended capabilities. For instance, duty cycle/symmetry adjustment modifies a waveform from 10% to 90%. Or, TTL outputs may be either inverted or non-inverted, at frequencies as high as 12 MHz for the FG-506 and 24 MHz for the FG-513. Plus, amplitude can be attenuated from 0 to 40 dB at three selectable levels of 0, 20 or 40 dB. Moreover, linear or logarithmic sweeps have variable rates and widths. The variation of sweep width in either linear or logarithmic is up to 100:1. The rate is adjustable from 5 sec to 10 msec.

INTELLIGENT FREQUENCY COUNTER

The FG-500 Series of sweep/function generators incorporate a 6-1/2 digit, 100 MHz intelligent frequency counter for added flexibility. This autoranging frequency counter reads external frequencies from 5 Hz to 100 MHz. Plus, signal measurement may be in frequency or period, a capability usually found on much more expensive units. Period mode offers greater accuracy and resolution at low frequencies. Also, a built-in low pass filter (LPF) gives an accurate measurement of a low slew rate triangle signal, and reduces interference of noise, spikes, glitches etc. Thus, false triggering of the frequency counter is prevented. All signals may be attenuated at x1, x20.

PERIOD DISPLAY

EXT 498.623 µs
Att: x20 ▲ LPF: ON

TCXO-500: TEMPERATURE COMPENSATED CRYSTAL OSCILLATOR

The TCXO option stabilizes a frequency counter’s 10 MHz time base by a built-in temperature compensated circuit. This feature dramatically improves aging rate, stability and temperature coefficient of the time base. Accordingly, the frequency counter has a high accuracy frequency count for a longer period of time. The TCXO-500 is an indispensable selection if the frequency counter is utilized in calibration purposes.

MOTEC

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Specifications subject to change without notice