

**Safety**

Having safe equipment in the classroom is especially important when there are inexperienced equipment operators. The oscilloscopes recommended for classroom use are listed by UL, CSA (Canada), VDE (Germany) and have been approved for use under the building codes of major municipalities.

**A Partnership You Can Count On**

Tektronix has listened to educators and now has a new industrial-quality product series developed especially for beginning electronics students, whether they're in four-year electrical engineering/electronics technology programs or two-year applied science programs, trade/technical schools or secondary schools. It's a partnership that pays off in more ways than one. Students who get started with Tektronix equipment get a real head start. And their successful careers in the coming years will speak well for your school.

**Instructional Materials Add Even More Value**

To support the school's electronics curriculum we also made available manuals, video tapes and other instructional materials that were designed and written by educators, especially for the student. These materials are detailed in the "Instructional Material Catalog" available from your local Tektronix representative.

The following Test and Measurement equipment combined with one of the 2200 Series oscilloscopes, (see page 231) comprise lab packages of standalone bench equipment that are UL listed and approved by CSA and VDE.

Contact your Tektronix Sales Engineer or other Tektronix representative for support materials availability.

**Special Discount Advantages**

Our complete measurement packages offer even greater economy. These packages are built around Tek's analog or digital oscilloscopes or other instruments and are offered together at a package price.

The National Marketing Center at 1-800-426-2200 will also know about new educational materials and instrumentation as they are introduced throughout the year.

**Industrial Quality Bench Equipment**

**CFG250 2 MHz Function Generator**

- Square, Triangle, Sine Waves, TTL Ouptut
- 20 dB Attenuator
- Internal or External Fequency Sweep
- Variable Duty Cycle
- One Year Warrantny
- UL Listed, CSA Certified

The CFG250 2 MHz Function Generator produces sine, square and triangle waves, and TTL signals for testing amplifiers, filters and digital circuits. Its sweep function can be controlled internally or with an external signal level. Duty cycle, DC offset, sweep rate, sweep width and amplitude are all operator controlled.

**CHARACTERISTICS**

**Waveform Outputs**—Sine, Square, Triangle, TTL pulse.

**Symmetry**—Fixed 1% to 100 kHz: Variable 20% and 80%.

**Frequency Range**—0.2 Hz to 2.0 MHz, seven ranges.

**Frequency Multiplier**—Variable from 0.2 to 2.0 times the selected frequency range.

**Amplitude**—Open: 100 mV p-p to 20 V p-p; 10 mV p-p to 2 V p-p. 50 Ω load: 50 mV p-p to 10 V p-p; 5 mV p-p to 1 V p-p.

**Accuracy**—±5% of full scale.

**DC Offset**—+10 to -10 V dc continuously variable.

**Output Impedance**—50 Ω: ±10 %.

**Sine Wave Distortion**—10 Hz to 100 kHz: <1% (max output, 50 Ω load).

**Square Wave Response**—≤100 ns rise/fall time, with maximum output into 50 Ω.

**Triangle Linearity**—20 Hz to 200 kHz: ≥99%. 200 kHz to 2 MHz: ≥97%.

**Pulse Output Amplitude**—<3 V p-p (open); Rise Time: ≤25 nsec.

**Sweep Rate**—0.5 Hz to 50 Hz continuously variable.

**Sweep Width**—Variable from 100:1 to 1:1.

**POWER REQUIREMENTS**

**Line Voltage Ranges**—90 to 110 V ac, 108 to 132 V ac, 180 to 220 V ac, and 216 to 250 V ac at 50 to 60 Hz.

**Max Power Consumption**—20 V A, 17 W.

**PHYSICAL CHARACTERISTICS**

Dimensions	mm	in.
Width	240	9.5
Height	64	2.5
Depth	190	7.5
<b>Weight ≈</b>	<b>kg</b>	<b>lb</b>
Net	1.6	3.6

**OTHER CHARACTERISTICS**

**Temperature**—Operating: 0° to +50°C, 75% R.H. Nonoperating: -20° to +60°C, 80% R.H.

**ORDERING INFORMATION**

CFG250 Function Generator **\$330**

**CFC250**

100 MHz Frequency Counter

- 5 Hz to 100 MHz (1 Hz Resolution)
- 8 Digit Display
- Switchable Input Sensitivity
- Overrange Indicator
- 100 kHz Lowpass Filter
- One Year Warranty
- UL Listed, CSA Certified

The CFC250 Frequency Counter counts the signal frequency of sine, square and triangle waves from 5 Hz to 100 MHz at input levels from 30 mV to 42 V peak. Applications include the adjustment, testing and repair of items including audio instruments, AM/FM radios, televisions, CB radios, computer clocks, amateur radios and musical instruments.

**CHARACTERISTICS**

**Frequency Range**—AC coupled.

**Sensitivity**—5 Hz to 30 MHz: 30 mV rms; 30 MHz to 70 MHz: 50 mV rms; 70 MHz to 100 MHz: 80 mV rms.

**Attenuation**—Selectable Range: 3 V to 42 V range or 80 mV to 5 V range.

**Impedance**—1.0 MΩ paralleled by 40 pF.

**Dynamic Range**—V p-p ≤1 V times attenuation.

**Maximum Input Voltage**—5 Hz to 100 kHz: 42 V peak; 100 kHz to 10 MHz: 13.8 V peak; 10 MHz to 100 MHz: 5.4 V peak.

**Resolution**—1 Hz.

**Accuracy**—±1 count ±time base accuracy.

**Gate Time**—1 second.

**TIME BASE ACCURACY**

**Crystal Frequency**—3.579545 MHz at calibration ±3 ppm.

**Temperature Stability**—±10 ppm, 0 to 50°C.

**Aging Rate**: ±10 ppm per year.

**POWER REQUIREMENTS**

**Line Voltage Ranges**—90 to 100 V ac, 108 to 132 V ac, 180 to 220 V ac, and 216 to 250 V ac at 50 to 60 Hz.

**Max Power Consumption**—16 V A, 13 W.

**PHYSICAL CHARACTERISTICS**

Dimensions	mm	in.
Width	240	9.5
Height	64	2.5
Depth	190	7.5
<b>Weight ≈</b>	<b>kg</b>	<b>lb</b>
Net	1.9	4.2

**OTHER CHARACTERISTICS**

**Temperature**—Operating: 0 to +50°C, 75% R.H. Nonoperating: -20 to +60°C, 80% R.H.

**Sampling Rate**—2.5 Samples/second.

**Display**—8 digit LED.

**Overflow Indicator**—Flashing LED.

**ORDERING INFORMATION**

CFC250 Frequency Counter **\$295**