



**COMPLETE** : Reciprocal frequency counter 50MHz.

- Internal linear or logarithmic sweep, and external VCF or FM modulation. AM modulation.
- CMOS function.

- Independent offset of the attenuator.

**PRECISE** : High waveform quality.

- Continuously variable duty cycle on all ranges.

**PROTECTED** : 50Ω and TTL outputs protected against up to ±60V reverse power surges.

**EASY** : All parameters display.



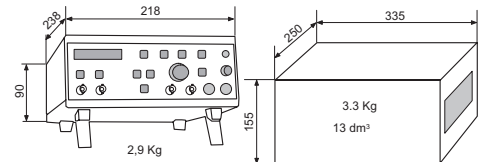
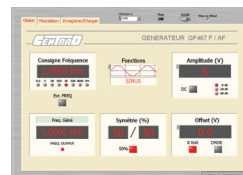
\*OPTION : USBRS232



**PROTECTED**  
**0,01Hz to 5MHz**  
**CMos**  
**AMPLI 15W**



LabVIEW



Specifications

**Functions**

- Triangle, sine, square, ramp, implus, offset, CMOS, internal linear or logarithmic sweep, external VCF or FM modulation, AM modulation.
- Frequency range : 0,01 Hz to 5 MHz in 8 ranges.
- Frequency adjustment : Thumbwheel switch 3 steps (big, medium, fine).
- Resolution : < 0.04% of the range.

**Waveform characteristics**

- Sine-wave distortion : < 1% and harmonics less than < -30 dB.
- Triangle linearity error : 1% max (up to 100 KHz).
- Square-wave signal rise or fall times : 30 ns max (10 to 90%).

**Duty cycle**

- Calibrated : to 50% ± 1%.
- Variable : continuously from 20 to 80 % on all ranges and for all wave forms. 1% step.

**Frequency sweep**

- Internal : Linear or logarithmic, sweep time adjustable from 10 ms to 5 s and depth adjustable for 1 to 100. Start, arrival and lasting frequency setting. Ramp output on BNC socket, 1 volt into 35KΩ.
- External : Input on BNC socket, input impedance : 47KΩ ± 10%, bandwidth : DC to 20KHz. 500:1 ratio : for a variation from 0 to -10 V (± 1V). 1:500 ratio : for a variation from 0 to +10 V (± 1V).

**Amplitude modulation**

- Internal : 440 Hz frequency. Depth : 4 steps at 25, 50, 75 or 100%
- External : Input on BNC socket. Depth : 1Vrms = 100% for 10Vcc.

**Frequency counter**

- Frequency range : 0 to 50 MHz in 8 automatic ranges. Reciprocal reading for very low frequencies.
- Display : 14mm 5 digits red LEDs.
- External input : Impedance : 1MΩ / 20pF
- Typical sensitivity : 10mV rms
- Direct reading of the frequency in internal position.
- Accuracy to 100KHz : ± 0,025% ± 1 digit.

**Main output (Protected against short circuits and up to ±60 V reverse power surges)**

- Output impedance : 50Ω, accuracy : ± 5%.
- Output level : 20V peak to peak (open circuit), 10V peak to peak into 50Ω.
- Fixed attenuation : 0, - 20dB or -40dB switchable.
- Variable attenuation : 0 dB to - 40dB + DC function
- Resolution : 100mV at 0dB, 10mV at - 20dB and 1mV at -40dB
- Offset voltage : Independent of fixed attenuator regulating ± 10V (open circuit), ± 5V into 50Ω

**CMos function** : Output signal shifting on positive range. Regulating from 0 to ± 10V in open circuit.

**0,5 Ω output (Protected against short circuits)**

- Output impedance : 0,5Ω, accuracy : ± 10%.
- Power : 15W into 4Ω ; Max current : 2A.
- Output voltage : ± 12,5V (open circuit)
- Offset voltage : 7,8V into 4Ω, independent of fixed attenuator.
- Bandwidth : DC to 100 KHz.
- Power adjustment : 0 to max via trimer.
- External input : sensitivity 5mV, input impedance : 47kΩ ± 10%, gain = 500 ; bandwidth : 0 to 100 KHz

**TTL output (Protected against short circuit and up to ±60 V reverse power surges)**

- Synchronous square-wave signal 0 to 5 Volts. Fan-out : > 10.
- Rise and fall times : < 20 ns.

Other specifications

- Safety : Class II, Toroidal Safety Extra Low Voltage (SELV) Transformer. Complies with EN 61010-1, overvolt. cat. II, poll. degree 2.
- EMC : Complies with EN 61326-1.
- Protection level : IP 31.
- Interface : RS232 Link 9-way male SUB-D plug. labVIEW's drivers download on [www.elc.fr](http://www.elc.fr)
- Input voltage : 230V ±10%, 50/60 Hz ; 200 mA time-delay fuse.
- Mains input : socket with 2 poles irremovable.
- Power consumption : 86 VA max.
- Dielectric strength : 3000V from input to output.
- Presentation : screen-printed polycarbonate front panel, metal case, with feet.