

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

- Internal linear or logarithmic sweep, and external VCF or FM modulation. AM modulation.
- CMOS function.
- Independent offset of the attenuator.
- Two fixed -20 dB attenuators and a -40 dB variable (Total = -80 dB)

**PRECISE** : High waveform quality.

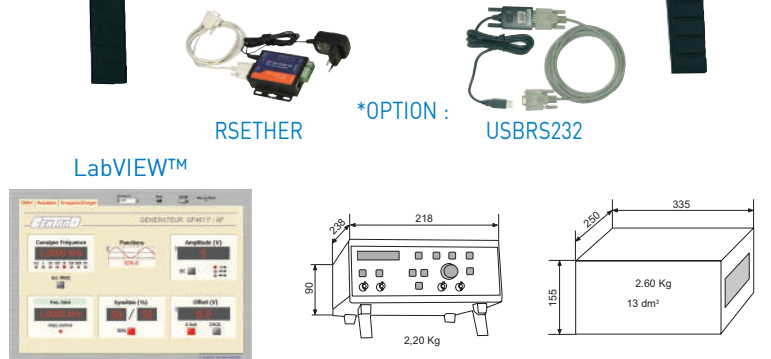
- Continuously variable duty cycle on all ranges.

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

**EASY** : All parameters display.



**PROTECTED**  
**RS232 + (USB OR LAN)\***  
**LabVIEW™**  
 0,01 Hz to 5 MHz  
 CMos



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 with 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. Resolution : 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 35 kΩ.
- External : Input on BNC socket, input impedance : 47 kΩ ± 10%, Protection : ± 60 Volts max. Bandwidth : DC to 20 kHz. 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 : 1 Vrms = 100% for 10 Vcc.

**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 : 1 MΩ/20 pF. Typical sensitivity : 10 mV rms
- Direct reading of the frequency in internal position.
- Accuracy to 100kHz : ± 0,025% ±1 digit.
- Memorize the last configuration used and its parameters.

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

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

**CMos function**

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

**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, overvoltage category II, pollution 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)
- \* USB option : USB / RS232 adapter kit + null modem cable.
- \* ETHERNET option : RS232 / RS485 / RS422 adapter kit to ETHERNET.
- Input voltage : 230 V ±10%, 50 / 60 Hz ; protected by 0.2 A time-delay fuse.
- Mains input : socket with 2 poles irremovable.
- Power consumption : 30 VA max.
- Dielectric strength : 3000 VAC from input to output.
- Presentation : screen-printed polycarbonate front panel, metal case, with feet.