

**B801/B803 2MHz Sweep Function Generator**

- Seven frequency ranges with 100:1 control on each range
- Built-in 2MHz, 4 digit frequency counter (B803)
- Less than 2% sinewave distortion
- Variable symmetry
- DC offset and Voltage Controlled Frequency input
- TTL sync output

**B810 10MHz Sweep Function Generator**

- Wide (0.01Hz to 10MHz) Frequency Range
- Burst and Triggered mode
- Sweep start/stop capability
- Six digit LED frequency readout
- Log. or Lin. sweep
- Built-in 10MHz frequency counter
- External FM with the VCG input
- Output can be amplitude modulated



## SPECIFICATIONS ■

**[ B801/B803 ]****Output Characteristics**

Waveforms: Sine, Square, Triangle, Pulse, Ramp  
**Frequency Range:** .02Hz to 2MHz in 7 ranges  
**Tuning Range:** 100:1 on each range  
**Frequency Accuracy:** B801: 5% of FS; B803:  $\pm (0.01\% + 1D)$   
**Frequency Stability:** 0.1% after 20 minutes  
**Amplitude:** 2V to 20V P-P open circuit  
**DC Offset:** Variable from  $< -10V$  to  $> +10V$  open circuit  
**Output Impedance:**  $50\Omega \pm 5\%$   
**Variable Symmetry:** 1:1 to 4:1  
**Output Attenuation:** 0 to 40dB (20dB  $\pm 1$ dB step and 0 to 20dB variable)  
**VCF Input:** 100:1 tuning range with an input voltage level from 0 to -10V

**Sine Wave**

**Distortion:**  $< 2\%$  from 10Hz to 100kHz  
**Amplitude Flatness:**  $\leq 0.3$ dB

**Square Wave**

**Rise/Fall Time:**  $< 100$ ns at max amplitude

**Triangle Wave**

**Linearity:**  $> 98\%$  to 100kHz

**Sweep Characteristics**

**Sweep Mode:** Linear  
**Sweep Time:** Variable from 20ms to 2s  
**Sweep Width:** Variable from 10:1 to 1000:1

**Frequency Counter (B803)**

**Modes:** Internal and External; **Display:** 4 digit red LEDs  
**Measuring Range:** 10Hz to 2MHz.  
**Accuracy:**  $\pm 0.01\% \pm 1$  count; **Sensitivity:** 50mV RMS  
**Max Input V:** 140V P-P; **Input Impedance:** 1M $\Omega$

**General Specifications**

**Power Requirements:** AC Line Voltage: 100/120/220/240V  $\pm 10\%$ ; Frequency: 48Hz to 66Hz  
**Power Consumption:** Approx. 5VA  
**Operating Temperature:** 0 to 50°C  
**Size:** 3.3" H  $\times$  8.8" W  $\times$  10.1" D; **Weight:** 8 lbs.  
**Supplied Accessories:** Manual, Line cord, BNC cable

**[ B810 ]****Output Characteristics**

**Frequency Range:** 0.01Hz to 10MHz in 9 ranges  
**Output Level:**  $\pm 10$  Volts into 50 $\Omega$   
**Waveforms:** Sine, Square, Ramp, Pulse  
**Attenuator:** 20dB, 40dB, 60dB & 20dB variable  
**Impedance:** 50 $\Omega$ ; **DC Offset:**  $\pm 5V$  in to 50 $\Omega$

**Sine Wave**

**Flatness:**  $\pm 0.2$ dB: 0.01Hz to 100kHz; **Distortion:** 0.5%

**Triangle Wave**

**Linearity:**  $> 99\%$

**Square Wave**

**Rise/Fall Time:**  $\leq 25$ ns (into 50 $\Omega$ )

**Pulse**

**Duty Cycles:** 20:80 to 80:20 may be obtained

**Operating Modes :** CW, Triggered, gated, burst, sweep

**Trigger/Gate Input Level:** TTL; **Burst Time:** 1ms to 10s  
**Trigger/Gate Freq. Range:** 0.1Hz to 1MHz

**Sweep**

**Types:** Linear and Log  
**Sweep Time:** 1ms to 10s; **Sweep Width:** Variable to 100:1  
**Start Freq:** 0.01Hz to 10MHz

**AM Modulation**

**Type:** Internal  
**Modulation Level:** 0 to 100%; **Modulation Voltage:** 0 to 5V  
**Modulation Frequency:** DC to 1MHz

**FM Modulation**

**Type:** External  
**Tuning Range:** 1000:1 with an input voltage of 0 to -5V (VCG)

**Frequency Counter**

**Measuring Range:** 1Hz to 10MHz  
**Gate Time:** 0.01s, 0.1s, 1s, 10s  
**Accuracy:**  $\pm 0.01\%$ ; **Sensitivity:** 50mV RMS  
**Max Input V:** 250V DC and AC RMS; **Input Impedance:** 1M $\Omega$

**General Specifications**

**Power Requirements:** AC Line Voltage: 100/120/220/240V  $\pm 10\%$ ; Frequency: 48Hz to 66Hz  
**Power Consumption:** 9VA  
**Operating Temperature:** 0 to 50°C  
**Size:** 3.8" H  $\times$  11.5" W  $\times$  12.5" D; **Weight:** 8 lbs.  
**Supplied Accessories:** Manual, Line cord, BNC cable