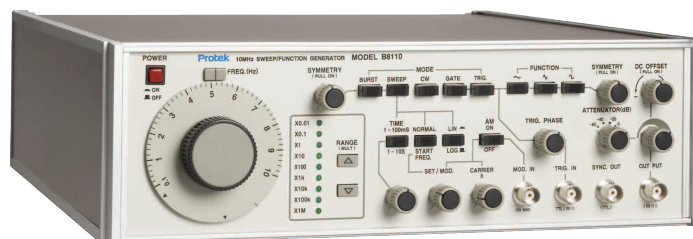


**B8110 10MHz Sweep Function Generator**

- Wide 0.01Hz to 10MHz frequency range
- Log/Lin sweep
- Burst /gate and triggered modes
- Output may be FM modulated using the VCG input.
- Low distortion Sine wave
- Sweep start and Stop capability

**B8110****B1990**

## ■ SPECIFICATIONS

**[ B8110 ]****Frequency Characteristics**

**Frequency Range:** 0.01Hz to 10MHz

**Output Characteristics**

**Waveforms:** Sine, Square Pulse, Triangle and ramp

**Impedance:** 50Ω

**Attenuator:** 20dB, 40 dB, 60dB and 20 dB variable

**Amplitude:** 0 to ±10 Volts in to an open circuit

**DC Offset:** 0 to ±10 V in to an open circuit (0 to ±5 into 50Ω)

**Sine Wave**

**Frequency Range:** 0.01Hz to 10MHz

**Flatness:** ±3.5% from 0.01Hz to 100KHz

±10% 100KHz to 10MHz

**Harmonic Distortion:** < 0.5 % from 10 Hz to 40KHz

**Symmetry:** 20:80 to 80:20

**Square Wave**

**Frequency Range:** 0.01Hz to 10MHz

**Rise/Fall Time:** < 25ns into 50Ω

**Pulse**

**Frequency Range:** 0.01Hz to 10MHz; **Rise Time:** < 10ns

**Duty Cycle:** adjustable symmetry control from 20:80 to 80:20

**Ramp and Triangle**

**Linearity:** > 99%

**Operating Modes**

CW, Triggered, Gated, Burst Sweep

**Trigger/Gate input level:** TTL

**Trigger/Gate Frequency Range:** DC to 100KHz

**Burst time:** 1ms to 10s

**Sweep**

**Type:** Linear and Log

**Sweep Time:** 1ms to 2s in 2 ranges, continuously variable

**Sweep width:** 1:100 continuously variable. Sweep start frequency may be set with the SET/MOD control.

**Modulation**

**Type:** AM

**Input:** External Through the MOD input connector

**Frequency:** DC to 1MHz

**Modulation Range:** 0 to 100%

**Modulation Voltage:** 0 to 5V P-P

**Type:** FM:

**Input:** External through the VCG input

**Tuning Range:** 1000:1 with an input of 0 to -5V

**Outputs**

**Sync:** TTL level

**GCV:** output proportional to the selected frequency, 0 to -5V

**Sweep:** 0 to -5V; **Sweep/Burst Gate:** TTL level

**General Specifications**

**Operating Temperature:** 0 to 50°C (32 to 120°F)

**Dimensions:** 4.3" (H) x 12.5" (W) x 14" (D)

**Weight:** 15 lbs

**AC line Voltage:** 120/220V, 50/60Hz

**Accessories:** Manual, line cord, BNC cable

**[ B1990 ]****Frequency Characteristics****Frequency Range:**

Internal: 1Hz to 10MHz (100ns to 1s) in 7 ranges

Xtal: 10Hz to 10MHz

**Output Characteristics**

**Amplitude:** 0.5 to 5V p-p (into 50Ω)

**Impedance:** 50Ω

**Input Impedance:** 2KΩ

**Rise Time:** 10ns (into 50Ω)

**Output Polarity:** Positive or Negative

**Pulse Width Range:** 50ns to 5ms in 5 ranges

**Pulse Delay Range:** 0 to 2μs in

**Trigger****Trigger modes:**

Internal, Ext (+ or - edge triggered), Xtal and Manual

**Trigger out:**

Width: 20ns; Amplitude: 5V; Impedance: 50Ω

**External Trigger in:**

Input V range: +1.0V to -1.0V P-P (sine or square wave)

Repetition Rates: 10Hz to 10MHz; Impedance: 2KΩ

**General Specifications**

**Operating Temperature:** 0 to 40°C (32 to 104°F)

at less than 85% humidity

**Stability:** 0.1% per hour after warm up

**Dimensions:** 4.3" (H) x 11.4" (W) x 10.2" (D)

**Weight:** 6.4 lbs

**AC line Voltage:** 120/220V, 50/60Hz

**Accessories:** Manual, line cord, BNC cable