## Sweep Function Generators 0.2MHz to 20MHz

- Sweep Function Generator and Frequency Counter
- Sine, Square, Triangle, Ramp, Pulse, Skewed Sine and TTL Square Waveforms
- 0.2Hz to 20MHz Frequency Output (Sine wave)
- Built-in 8 digit 3.0GHz Frequency Counter
- Internal and External linear Sweep control
- Variable Symmetry for generating Sawtooth (Ramp), Skewed Sine and Pulse Waveforms
- Variable DC Offset control
- Variable Output level control and 20 dB attenuator



B821

## [B821]

**Output Characteristics** Frequency Range Sine wave: 0.2Hz to 20MHz Square & Triangle wave: 0.2Hz to 10MHz Range selection in 8 ranges (1,10,100,1K,10K,100K,1M,10M) Output Level: 20 ±1 Vp-p in open circuit 10 ±0.5 Vp-p into 50Ω Load Waveforms Sine, Square, Triangle, Ramp, Pulse, Sawtooth, TTL Leveled Square Attenuator: 20dB fixed and continuously variable (20dB) Impedance: 50 ±0.5% Frequency Accuracy: ±5% of full scale Waveform Characteristics Sine Wave: Flatness: ±3dB to 20MHz Distortion: Less than 1.5 % at 0.2Hz to 100KHz Duty error: Less than 10% in 50:50 Square Wave: Rise and Fall Time: < 25ns at 10MHz Triangle Wave: Linearity: More than 99% at 0.2Hz to 100KHz TTL Output: Rise and Fall Time: < 25ns at 10MHz TTL Level: H  $\geq$  2.4V, L  $\leq$  0.4V Symmetry Variation: Sine & Square; 80:20 to 20:80 at 0.2Hz to 2MHz Triangle; 80:20 to 20:80 at 0.2Hz to 1MHz

## Sweep Function Characteristics

Mode: Linear Width: Variable from 1:1 to 10:1 Rate: 0.5Hz to 50Hz (20ms to 2s) External VCF Input: Input Voltage: 0 to 10V Input Impedance: Approx. 10KΩ

Frequency Counter Characteristics Display: 8 digits Green LED, Overflow, Gate time, MHz, KHz, Hz Frequency Range Input A: 0.1Hz to 100MHz Input C: 80MHz to 3.0GHz Accuracy: ±Timebase Error ±1 count Low pass Filter: -3 dB, 100KHz Timebase: 10MHz TCO, 1 ppm Input Sensitivity: Input A (30mVrms): 0.1Hz to 80MHz Input A (70mVrms): 80MHz to 100MHz Input C (20mVrms): 80MHz to 2.0GHz Input C (70mVrms): 2.0GHz to 3.0GHz with RG58 cable Input C (40mVrms): 2.0GHz to 3.0GHz with RG400 cable Max. Input Voltage: Input A: 35Vp-p Input C: 3Vrms

SPECIFICATIONS

General Specifications Power Requirements:  $115/230VAC \pm 10\%$ , 48 to 66Hz Operating Temperature: 0 to 40°C (Accuracy specified at 23  $\pm 5$ °C) Size: 3.5" H x 9.5" W x 11.0" D Weight: 6.6 lbs

Supplied Accessories: Manual, Line cord, BNC cable