

The following electrical specifications are guaranteed when operated at 23°C. ±5°C. and when powered by the rated line voltage.

7.1 General

| | |
|------------------|---|
| Output Waveforms | Sine, triangle, square wave from OUTPUT connector Square wave from TTL/CMOS connector |
| Amplitude | OUTPUT connector: >20V P-P open circuit >10V P-P into 50 ohm load TTL/CMOS connector: TTL: >3V open circuit CMOS: 4 to 14.5V, adjustable |
| Impedance | 50 ohm ± 10% (OUTPUT connector only) |
| Attenuator | -20 db ±1dB at 1KHz (OUTPUT connector only) |
| DC Offset | <-10V to >+10V for no load <-5V to >+5V for 50 ohm load (OUTPUT connector only) |
| Duly Cycle | 1:1 to 10:1 minimum, variable |
| Display | 5 digit LED display of frequency 4 LED indicators for Gate, Over, KHz, MHz |
| Frequency Range | 0.2Hz to 2.0MHz in 7 ranges |

7.2 Sine Wave Output

| | |
|------------|---|
| Distortion | <1%, 0.2Hz to 200KHz |
| Flatness | <0.2dB, 0.2Hz to 100KHz <1dB, 100KHz to 2MHz |

7.3 Triangle Wave Output

| | |
|-----------|---|
| Linearity | >98%, 0.2Hz to 100KHz >95%, 100KHz to 2MHz |
|-----------|---|

7.4 Square Wave Output

| | |
|----------------|----------------------|
| Symmetry | <2%, 0.2Hz to 100KHz |
| Rise/Fall Time | >120ns |

7.5 CMOS Output

| | |
|----------------|--|
| Level | 4V P-P ($\pm 1V$ P-P) to 1.45V P-P ($\pm 0.5V$ P-P), adjustable |
| Rise/Fall Time | <120ns |

7.6 TTL Output

| | |
|----------------|---------|
| Level | >3V P-P |
| Rise/Fall Time | <25ns |

7.7 VCF Input

| | |
|-----------------|--|
| Input Voltage | 0 to 10V ($\pm 1V$) for 1000:1 frequency ratio |
| Input Impedance | > 10K Ω |

7.8 Frequency Counter

| | |
|-----------------------------------|--|
| Input | Internal/External, switch selected |
| Frequency Range | Internal input: 0.2Hz to 2MHz External input: 5Hz to 10MHz |
| Accuracy | 10PPM \pm 1 PPM at 23°C \pm 5°C |
| Timebase | Oscillator frequency: 10MHz Stability: \pm 10 PPM at 23°C \pm 5°C |
| Resolution | 0.1Hz, 1.0Hz, 10Hz, 100Hz |
| Counter Ext. Input Sensitivity | \leq 25mV RMS |

7.9 Sweep

| | |
|-----------------------------------|--|
| Sweep/Manual Mode Switch selected | |
| Sweep Width | 1000:1 frequency ratio max., adjustable |
| Sweep Time | 0.5 sec. to 30 sec., adjustable |
| Sweep Type | Linear or Logarithmic, Switch selectable |

7.10 Amplitude Modulation

| | |
|------------------|----------------------------------|
| Depth | 0-100% modulation, adjustable |
| Modulation Freq. | 400Hz internal, DC-1MHz external |
| Carrier BW | 100Hz to 2MHz (-3 dB) |
| EXT. Sensitivity | <10V P-P for 100% modulation |

7.11 Frequency Modulation

| | |
|------------------|-----------------------------------|
| Deviation | 0 to $\pm 5\%$ |
| Modulation Freq. | 400Hz internal, DC-20KHz external |
| Ext. Sensitivity | <10V P-P for $\pm 10\%$ deviation |

7.12 General

| | |
|--------------|--|
| Power Source | AC 100V, 120V, 220V, 240V $\pm 10\%$ 50/60Hz |
| Dimensions | 24.5 (W) X 9.5 (H) X 28.0 (D) in centimeters 9.65 (W) X 3.74 (H) X 11.02 (D) in inches exclusive of handle |
| Weight | 3.5kilograms typical 7.7 pounds typical |