

Data sheet

Function Generators Models 4010A & 4011A



4010A 2 MHz Function Generator

- 0.2 Hz to 2 MHz
- Sine, Square, Triangle, Pulse & Ramp output
- Variable duty cycle
- Variable DC offset
- Variable amplitude output plus 20dB attenuator
- 20Vpp output into open circuit (10Vpp into 50 Ωs)
- cUL certified



4011A 5 MHz Function Generator

- 0.5 Hz to 5 MHz
- Sine, Square, Triangle, Pulse, & Ramp output
- Coarse and Fine tuning
- 4 digit LED display
- Variable duty cycle
- Variable DC offset
- Variable amplitude output plus 20dB attenuator
- 20Vpp output into open circuit (10Vpp into 50 Ωs)
- cUL certified



| Specifications | 4010A | 4011A |
|----------------------------------|---|--|
| Frequency Characteristics | | |
| Waveforms | Sine, Square, Triangle, ±Pulse, ±Ramp | |
| Range | 0.2 Hz to 2 MHz in 7 ranges | 0.5 Hz to 5 MHz in 7 ranges |
| Resolution | NA | 4 digits |
| Dial Accuracy | ±5% typical | NA |
| Tuning Range | 10:1 Does not apply | Coarse, 10:1 Fine ±5% of coarse setting |
| Variable Duty Cycle | 15:85:15 cont variable | 15:85:15 Cont variable |
| Operating Modes | Normal, VCG | |
| Output Characteristics | | |
| Impedance | 50Ω ± 10% | |
| Level | 20 V p-p Open circuit, 10V p-p into 50Ω | |
| Amplitude | Variable, 20 dB range typical | |
| Attenuation | -20 dB ± 1dB | |
| DC Offset | Preset ±0.1 V typ Variable: ±10V open-circuit ±5 into 50Ω | |
| Distortion | ≤ 4% @ 1 kHz | ≤ 3% @ 1 kHz |
| Flatness | ≤ 5% (.45 dB) | |
| Symmetry | 0.5 Hz to 100 KHz ≤ 2% | |
| Risetime (Into 50Ω) | ≤ 120 nS | ≤ 20 nS |
| Linearity | ≥ 98% to 100 KHz, ≥ 95% to 2 MHz | |
| TTL Output | | |
| Level | 0.8V to 2.4V | |
| Rise time (0.8V to 2.9V) | ≤ 50 nS | ≤ 20 nS |
| Duty Cycle | 50% typical | |
| CMOS Output | | |
| Max. Frequency | 2 MHz | |
| Level | 4V to 14V ±0.5 p-p cont. variable | |
| Rise Time | ≤ 120 nS | |
| Input VCG | | |
| Input Voltage | 0-10V ± 1V causes a 100:1 frequency change | |
| Impedance | 10KΩ ± 5% | |
| Frequency Counter INT | | |
| Accuracy | NA | Time Base Acy ± 1 count |
| Time Base Accuracy | NA | ± 10 PPM (23°C ± 5°C) |
| General | | |
| Display | NA | 4 digit LED |
| AC Input | 120/230 VAC ± 10%, 50/60 Hz, internal jumper selectable | |
| Dimensions (H x W x D) | 4.5 x 11.75 x 10.375", (114 x 298 x 264 mm) | |
| Weight | 4 lbs. (1.8 kg) | |
| Two-Year Warranty | | |
| Standard Accessories | Output cable with BNC to alligator clips, Instruction Manual, Line Cord | |
| Optional Accessories | Carrying Case (not included): LC-40, TLFG kit | |