

# Data Sheet

## 4 MHz Sweep Function Generators Models 4001A & 4003A



4001A



4003A



Models 4001A and 4003A are 4 MHz sweep function generators. The sweep function offers linear or log sweep with variable sweep rates and widths. The model 4003A has the addition of a 20 MHz 5-digit external frequency counter.

### Features

- Generates Sine, Triangle, & Square waveforms from 0.5 Hz to 4 MHz
- 20 Vpp output into open circuit (10 Vpp into 50 Ω)
- TTL output <25 ns
- ±10 V DC offset
- Variable amplitude output plus 20 dB attenuator
- Kensington security slot
- cUL approved

### 4003A Additional Features

- CMOS variable level output
- 5-digit LED display
- Voltage Controlled Frequency (VCF) input



Kensington security slot helps secure your function generator and prevents theft.



| Model                    | 4001A  | 4003A                                   |
|--------------------------|--|---|
| <b>Main Output</b>       |  |   |
| Frequency Range          | 0.5 Hz to 4 MHz in 6 Ranges                                  |   |
| Waveforms                | 6 Waveforms (Sine, Square, Triangle, Ramp, +Pulse, -Pulse)   |   |
| Amplitude                | 0.2 Vpp - 20 Vpp (no load), 0.1 Vpp - 10 Vpp (50 Ω load)     |   |
| Attenuator               | -20 db (±2%)   |   |
| Output Impedance         | 50 Ω (±2%)   |   |
| DC Offset                | ±10 V (pull ADJ.)  |   |
| Distortion               | <2%, 1 Hz to 100 kHz   |   |
| Rise/Fall Time           | <90 ns   |   |
| VCF Input                | 0 to 10 V control  |   |
| <b>SYNC Output</b>       |  |   |
| Rise Time                | <60 ns (TTL), <90 ns (CMOS)                                  |   |
| Level                    | approx. 3 Vpp (TTL), variable 4 Vpp - 15 Vpp [±1 Vpp] (CMOS) |   |
| Waveforms                | Square, Pulse  |   |
| <b>Sweep</b>             |  |   |
| Mode                     | Linear/Log Sweep   |   |
| Rate                     | 5s to 10 ms Continuously Variable                            |   |
| Sweep Output             | 10 Vpp (open)  |   |
| Output Impedance         | 1 kΩ ±2%   |   |
| <b>Frequency Counter</b> |  |   |
| Display                  | -  | 5-digit LED display with Autorange      |
| Resolution               | -  | 0.01 Hz                                 |
| MODE                     | -  | INT Function Generator/EXT Counter      |
| Accuracy                 | -  | < 0.02% ± 1 digit, for ≥ 1 kHz          |
| Frequency Range          | -  | 0.2 Hz~20 MHz                           |
| Sensitivity              | -  | <100 mVrms (1 MHz), <200 mVrms (>1 MHz) |
| Max Input                | -  | <150 Vrms                               |
| Input Impedance          | -  | 1 MΩ ±2%                                |
| AC Input                 | AC 115V/230 V +10%, 50/60 Hz                                 |   |
| Dimension                | 11" x 3.6" x 11.9" (279.4 x 91.4 x 302.3 mm)                 |   |
| Net Weight               | 5.5 lbs. (2.5 kg)  |   |
| <b>One-Year Warranty</b> |  |   |
| Supplied Accessories     | Power cord and user manual                                   |   |