

# Models 4001A & 4003A

## Function Generators

### Data Sheet

Models 4001A and 4003A are 4MHz 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 60MHz five digit external frequency counter.

#### Common Features

- Generates Sine, Triangle & Square waveforms from 0.5Hz to 4MHz
- 20Vpp output into open circuit (10Vpp into 50 Ohms)
- TTL Output <25nS
- 100% DC offset
- Variable amplitude output plus 20dB attenuator

#### 4003A Additional Features

- CMOS adjustable level output
- 5 digit LED display
- Voltage Control Generator (VCG) input

#### MAIN OUTPUT

|                  |                                                             |
|------------------|-------------------------------------------------------------|
| Frequency Range  | .0.5Hz to 4MHz in 6 Ranges                                  |
| Waveforms        | .6 Waveforms (Sine, Square, Triangle, Ramp, +Pulse, -Pulse) |
| Amplitude        | .20Vp-p in to a Open (10Vp-p in to 50W)                     |
| Attenuator       | .0dB, -20db (+2%)                                           |
| Output Impedance | .50Ω (+2%)                                                  |
| DC Offset        | .+10V (pull ADJ.)                                           |
| Frequency Adjust | .Counter Accuracy                                           |
| Distortion       | .<1%, 1Hz to 100KHz                                         |
| Rise/Fall Time   | .<60nS                                                      |
| V.C.F. Input     | .0 to +10V control                                          |

#### SYNC OUTPUT

|                  |                                        |
|------------------|----------------------------------------|
| Rise Time        | .<40nS                                 |
| Level            | .>3Vp-p (open)                         |
| Waveforms        | .Square, Pulse                         |
| SWEEP            |                                        |
| Mode             | .Linear/Log Sweep                      |
| Width            | .>100:1 Continuously Variable          |
| Rate             | .From 10mS to 5S Continuously Variable |
| Sweep Output     | .10Vp-p (open)                         |
| Output Impedance | .1KΩ +2%                               |



**Model 4001A**



**Model 4003A**

| COUNTER         | Model 4001A                              | Model 4003A                                 |
|-----------------|------------------------------------------|---------------------------------------------|
| Display         | -                                        | 6 digit 0.36 Red LED display with Autorange |
| Gate Time       | -                                        | Auto Select (0.25S~10S)                     |
| Resolution      | -                                        | 0.001Hz                                     |
| MODE            | -                                        | INT Function Generator/EXT Counter          |
| Attenuator      | -                                        | 0dB, -26dB (+2%)                            |
| Accuracy        | -                                        | + time Base Accuracy + 1 count              |
| Time Base       | -                                        | 20MHz (+ 10PPM)                             |
| Frequency Range | -                                        | 0.2Hz~60MHz                                 |
| Sensitivity     | -                                        | 25mVrms at 1MHz                             |
| Max Input       | -                                        | 250Vrms                                     |
| Input Impedance | -                                        | 1MΩ +2%                                     |
| Power Source    | AC 115V/230V +10%, 50/60Hz, 25watt       |                                             |
| Dimension       | 10.83" x 3.6" x 11.8" (275 x 90 x 300mm) |                                             |
| Net Weight      | 4.9lbs. (2.2kg)                          | 5.5lbs. (2.5kg)                             |

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Specifications subject to change without notice