

ELECTRONIC COUNTERS

High Performance Universal and RF Counters (cont'd)

HP 53131A, 53132A, and 53181A

Ordering Information

HP 53131A Universal Counter

HP 53132A Universal Counter

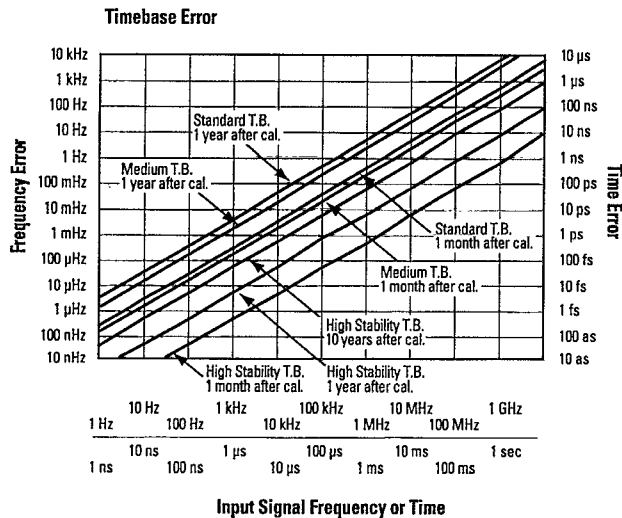
HP 53181A RF Counter

Each counter comes with standard crystal timebase, power cord, operating, programming, and service manuals.

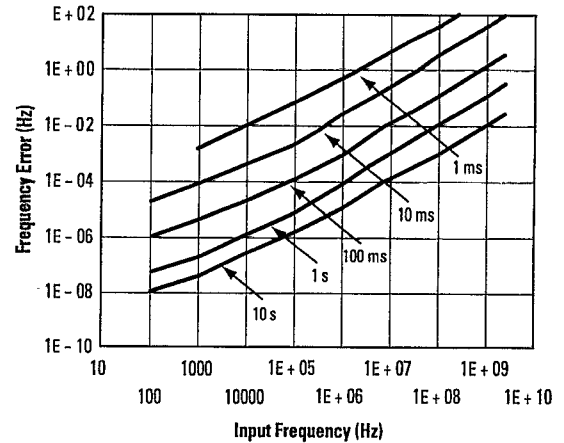
Options

- Opt 001** Medium Stability Timebase
- Opt 002** DC Power Input
- Opt 010** High Stability Timebase
- Opt 012** Ultra High Stability Timebase (for the HP 53132A and 53181A only)
- Opt 015** 1.5 GHz Channel (HP 53181A only)
- Opt 030** 3 GHz Channel
- Opt 060** Rear Panel Connectors
- Opt 106** HP BenchLink/Meter Software
- Opt 1BP** MIL-STD 45662 Calibration w/ data
- Opt 1CM** Rack Mount Kit
- HP 34161A** Accessory Pouch

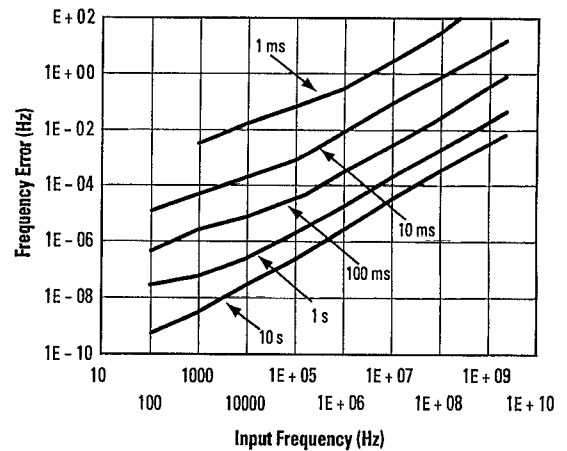
These graphs provide a quick way to estimate resolution for the measurement you wish to make by assuming negligible values for other error sources. Typically, frequency resolution error and timebase error are the largest components of error in a frequency or period measurement, while timebase and trigger errors are most significant in a time interval measurement. Remember: other error factors may affect your measurement. For full specifications, please see your HP representative.



HP 53131A and 53181A – Worst Case RMS Resolution (Time or Digits Arming)



HP 53132A – Worst Case RMS Resolution (Time or Digits Arming)



The preceding graphs do not reflect the effects of trigger error. To place an upper bound on the added effect of this error term, determine the appropriate graph and add trigger error term as follows:

$$\text{Frequency Error} + \left(\frac{4 \times \sqrt{2} \times \text{Trigger Error}}{\text{Gate Time} \times \text{Number of Samples}} \right) \text{Frequency} \wedge \text{or Period}$$

Trigger Level Timing Error (Level Setting Error and Input Hysteresis)

