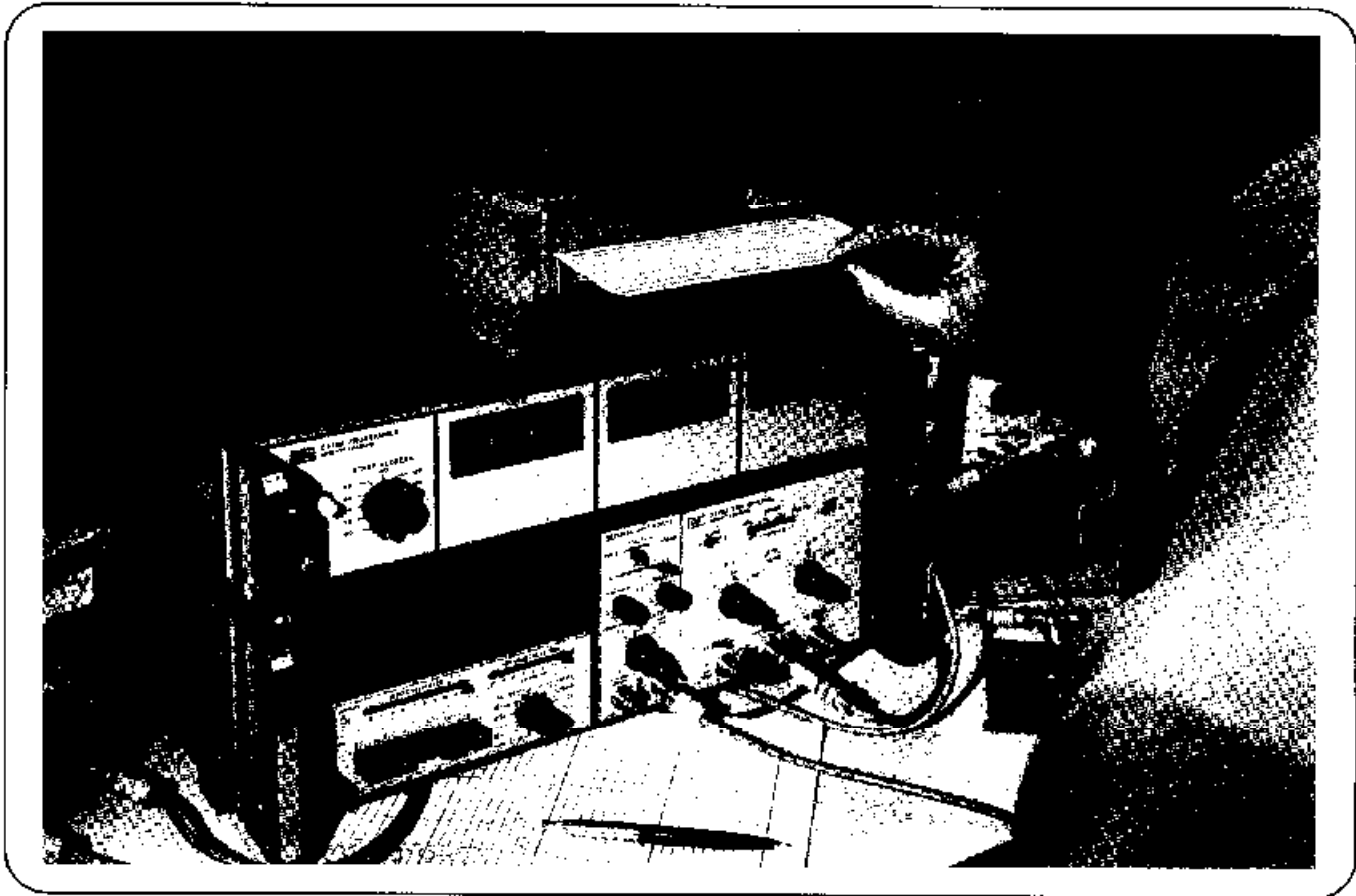




COMPUTING COUNTER SYSTEM
Precision measurement, computation
5360 Series



The Computing Counter System . . . Precise, Total Solutions to Complex Problems

The Computing Counter is a general purpose precision digital instrument with built-in arithmetic capability. As a measuring device the Computing Counter provides unequalled precision. For example, it can measure the time between two events to a resolution of 100 picoseconds, about the time it takes light to travel one inch. The Computing Counter's unique measurement technique employs extensive use of digital computation. Thus the main-frame contains an arithmetic unit which is an inherent, indispensable part of the measurement cycle.

Measurement

Measurement versatility is enhanced by a wide range of plug-ins in addition to the input module. All measurements are made with speed and accuracy and in many respects, operation is easier than with the conventional instrument.

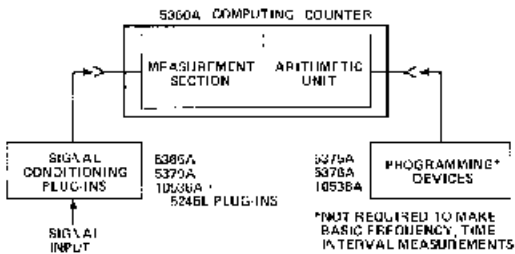
Computation

The arithmetic capability of the machine has been made available to the user via several programming devices.

This allows the system to be programmed to solve equations where measurements are the variables, in real time. This capability enormously increases the power of the Computing Counter System.

Note that the programming devices are not needed to obtain the measurement capabilities of the instrument. Inclusion of the appropriate programmer, however, enhances the capabilities of the Computing Counter system in providing precise, total solutions to complex problems at substantial cost saving and ease of operation.

The following two pages introduce the components of the Computing Counter System. Additional details are included in the tutorial (pp. 207-211). A full description of the system is given in the Computing Counter System data sheet. In addition, some of the many applications to which this versatile system can be put are described in the applications literature overpage. All literature is available on request.



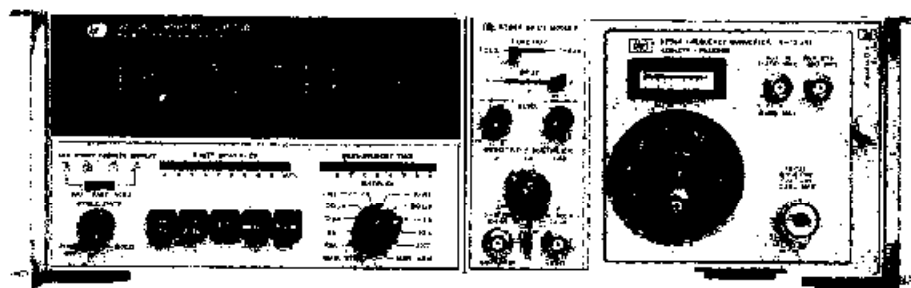
Basic Block Diagram of Computing Counter. The precision measurement technique employs digital computation as an inherent, indispensable part of the measurement cycle.

Precision Frequency Measurements

5360A Computing Counter

5365A Input Module

5245 Series Plug-Ins



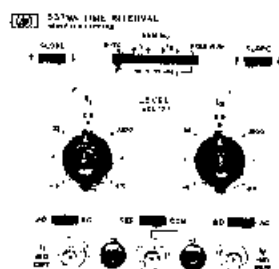
Features

- 320 MHz direct frequency range
- To 18 GHz with plug-ins
- Most accurate frequency measuring device available
- High speed . . . better than 300 measurements/sec
- External trigger capability enhances versatility
- Automatic display
- High stability time base
- Versatile measurement time controls
- High speed data gathering capability

Measure

- Pulse compression radar
- CW and pulsed, Doppler radar
- Frequency shift keyed (FSK)
- Precision oscillators for fast calibration
- PCM and fsk bit detection
- FM and transient frequencies
- Amplitude and pulse modulated signals

Price: \$6500.



Precision time interval measurements
5379A Time Interval Plug-In

Features

- 100 picosecond displayed resolution
- ± 500 picosecond accuracy
- Zero seconds minimum measurable time interval
- Positive or negative time intervals
- High speed, better than 1000 measurements/sec
- Hysteresis compensation of trigger levels
- Versatile arming modes
- Absolute trigger level determination
- 5 picosecond resolution by averaging

Measure

- Laser and radar ranging
- Delay line calibration
- Integrated circuit characterization (rise, fall, delay times)
- Computer checkout
- Nuclear time of flight measurements
- Coincidence detection
- Instrument calibration

Price: \$750.



Computation
5376A Systems Programmer

- Automatic operation
- Simple programming
- Precision system measurement capability
- ROM program (easily reprogrammed)
- Digital I/O capability
- Programmable analog output
- Options maximize price/performance
- For systems, production, laboratory, maintenance, and test

The 5376A Systems Programmer is a programming device for the 5360A Computing Counter. The 5360A/5376A combination provides solutions to problems that formerly required the use of a computerized instrumentation system.

This versatile combination finds wide use in several general application areas. . . .

(1) data reduction, e.g.

crystal inductance
transducer linearization
equation solving
phase, accumulative phase, etc.