

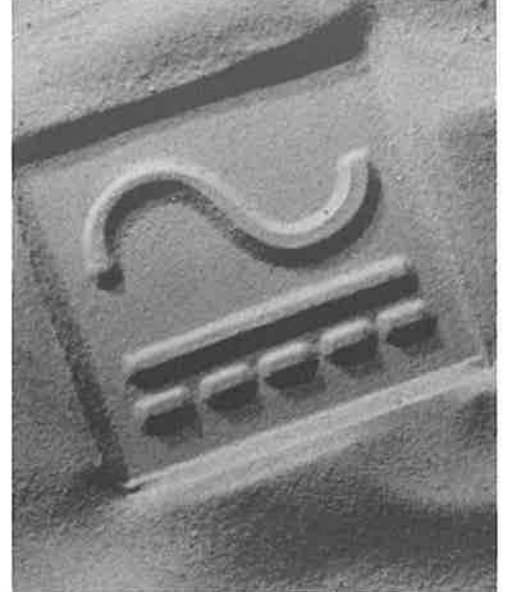


## MODEL 4920M

ALTERNATING VOLTAGE  
MEASUREMENT STANDARD

- **NIST TRACEABLE MEASUREMENT PERFORMANCE TO  $\pm 30$  ppm**
- **DIRECT READING:  $5\frac{1}{2}$  to  $7\frac{1}{2}$  DIGIT RESOLUTION TO  $\cdot 1$  ppm**
- **FAST READING RATES**
- **FREQUENCY MEASUREMENT**
- **SIMULTANEOUS DISPLAY OF VOLTAGE & FREQUENCY**
- **FULLY IEEE-488.2 PROGRAMMABLE**
- **SPECIFICALLY DESIGNED FOR US NAVY PROGRAM**

**T**he Model 4920M Alternating Voltage Measurement Standard is the latest generation of AC calibration devices aimed at replacing instruments that are presently using cumbersome thermal techniques. The unique method of operation utilizes an embedded DC reference system, providing a totally self contained AC/DC Transfer process, eliminating critical external DC setup operations. The 4920M offers performance which meets or exceeds traditional thermal approaches and provides fast, stable, foolproof measurements, either manually or remotely via its IEEE bus facility.





## Specifications

### EUROPE, MIDDLE EAST & AFRICA

#### WAVETEK ELECTRONICS GmbH

Freisinger Straße 34  
8045 Ismaning FRG

Telephone: (089) 960949-0

Fax: (089) 967170 Telex: 5212966 wvtek-d

### UNITED KINGDOM

#### DATRON INSTRUMENTS LIMITED

Hurricane Way, Norwich Airport,  
Norwich NR6 6JB, England

Telephone: (0603) 404824

Fax: (0603) 483670 Telex: 975173

### ASIA, PACIFIC & S. AMERICA WAVETEK INTERNATIONAL SALES

19A Chuang's Finance Centre,

81-85 Lockhart Road,  
Wanchai, Hong Kong

Telephone: 5-865 1903

Fax: 5-865 6716 Telex: (230) 446 655 wtk-hkg

### Frequency Bands

#### AV-Normal Band (Hi- $\Omega$ ) Input:

10 Hz to 1 MHz

#### AV-Wide Band (50 $\Omega$ ) Input:

10 Hz to 20 MHz

### Scale Length

To match a wide variety of applications, the scale length can be set from 5½ to 7½ digits, all with 10% overrange.

### Absolute Accuracy

Six month absolute accuracy,  $\pm 5^{\circ}\text{C}$  traceable to and including NIST uncertainties:

#### AV-Normal Band Input

##### 0.1V-100V

10-40 Hz	75 ppm
40-20 kHz	30 ppm
20-50 kHz	70 ppm
50-100 kHz	150 ppm
100-500 kHz	300 ppm
500 kHz-1 MHz	1000 ppm

##### 100V-1kV

10-40 Hz	80 ppm
40 Hz-20 kHz	35 ppm
20-50 kHz	75 ppm
50-100 kHz	150 ppm

#### AV-Wide Band Input

##### 0.1V-1V

10 Hz-500 kHz 1250 ppm + 75  $\mu\text{V}$

##### 1V-3.5V

10 Hz-500 kHz	1000 ppm
500 kHz-1 MHz	1250 ppm
1-10 MHz	1500 ppm
10-20 MHz	2000 ppm

### Selftest

There are two levels:

1. Operational to indicate the unit basically functions.
2. Diagnostic to indicate detail areas of unit failure.

### Real Time Clock

Indicates when out of calibration validation period.

### Frequency Counter Display

#### Range:

##### Normal Band:

10 Hz to 1 MHz autoranging

##### Extended Band:

200 Hz to 20 MHz autoranging

**Resolution:** 6 digits.

**Accuracy:** 10 ppm + 1 digit.

### Remote Programming

Programmable via IEEE-488.2 interface.

### Update/Reading Rate

#### Normal Band:

> 100Hz: 3 sec./rdg

< 100Hz: 6 sec./rdg

**Wide Band:** 20 sec./rdg

### GENERAL

**Dimensions:** 3.5 in. high, 16.8 in. wide, 19.2 in. deep.

**Weight:** 26 lb/12 kg.

**Design:** Tested to MIL-T-28800D, Type III, Class 5, Style E.

### Configurations

**Model 4920M:** Alternating Voltage Measurement Standard

**Option 90:** Rack Mount Kit

**Option 1502:** Input Lead with N type connector