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On-line curator: Glenn Robb
COMPLETE COVERAGE

- Amplifiers
- Attenuators
- Bolometer Mounts
- Carrier Oscillators
- Coaxial Instruments
- Detectors
- Directional Couplers
- Distortion Analyzers
- Electronic Counters
- Electronic Tachometers
- FM Monitors
- Frequency Counters
- Frequency Converters
- Frequency Meters
- Frequency Standards
- Function Generators
- Interpolation Oscillators
- Low Pass Filters
- Microwave Test Equipment
- Nuclear Scalers
- Oscillators
- Oscilloscopes
- Power Meters
- Power Supplies
- Pulse Generators
- Signal Generators
- Slotted Sections
- Square Wave Generators
- Standing Wave Indicators
- Time Interval Meters
- TV Monitors
- Vacuum Tube Voltmeters
- VHF Bridge
- Video Test Oscillators
- Waveform Analyzers
- Waveguide Equipment

HEWLETT-PACKARD COMPANY
275A Page Mill Road • Palo Alto, California, U.S.A.

Copyright 1956 Hewlett-Packard Company
-hp- Oscillators – .008 to 10,000,000 cps

- hp- 200 SERIES AUDIO OSCILLATORS

Four widely used -hp- oscillators have been redesigned into two compact, lightweight instruments offering wider frequency range, more operating simplicity, highest accuracy and stability. New Models 200AB and 200CD replace Models 200A through 200D, retain the time-tested RC circuits that insure low distortion; require no zero set. -hp- also offers Model 202A for sub-audio and audio tests; and Model 200J, a spread-scale oscillator for interpolation or where frequency must be known precisely.

-hp- 450A TEST OSCILLATOR

Highly stable, wide band (10 cps to 10 MC) multipurpose test oscillator for audio, supersonic, video, and rf measurements. Output variable 50 μv to 3 v. Frequency response flat = 1 db. Output impedance 600 ohms, or 6 ohms with voltage divider. $490.00△.

- hp- Distortion, Wave Form Analyzers – 20 cps to 20 KC

- hp- 330B DISTORTION ANALYZER

Measures distortion as low as 0.1%, 20 cps to 20 KC. Measures noise voltages as low as 100 μv. High sensitivity, high stability, broad applicability for broadcast, laboratory or production. Uses multipliers to extend the useful range of your equipment. $130.00.$775.00 $225.00 △.

- hp- 330D For AM-FM broadcast measurements

20 cps to 20 KC AM detector and VU meter to meet F.C.C. requirements $455.00△.

- hp- Vacuum Tube Voltmeters – 10 to 700,000,000 cps

- hp- 400D VACUUM TUBE VOLTMETER

Best -hp- voltmeter ever built! Covers all frequencies 10 cps to 4 MC. Extremely sensitive, wide range, accurate within 2% to 1 MC, measures 0.1 mv to 300 v. Direct reading in dbm. 10 meg- ohm input impedance insures negligible loading on circuits under test. New amplifier circuit with 66 db mid-range feedback assures utmost stability, freedom from change due to external conditions. $225.00.

△Includes new lightweight all-metal cabinet with carrying handles. Also available for rack mounting at slightly lower prices.

Data subject to change without notice. Prices f.o.b. factory.
**hp 524B ELECTRONIC COUNTER**

With plug-in units to fit your exact measuring need

**hp-525B Frequency Converter**

**hp-525A Video Amplifier**

**hp-520A Time Interval Unit**

- **Frequency Range**: Wide range, highly accurate frequency, period measurements.
- **Price**: $2,150.00

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### Other -hp- Frequency Measuring and Monitoring Equipment

#### -hp- 521A INDUSTRIAL COUNTER

- **Frequency Range**: 100 KC to 100 MC
- **Price**: $1,750.00

#### -hp- 523A ELECTRONIC COUNTER

- **Frequency Range**: 100 KC to 220 MC
- **Price**: $915.00

#### -hp- 522B ELECTRONIC COUNTER

- **Frequency Range**: 100 MC to 220 MC
- **Price**: $100,000

### Instruments

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Primary Uses</th>
<th>Frequency Range</th>
<th>Characteristics</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>-hp- 524B</td>
<td>Frequency Converter</td>
<td>Wide range, highly accurate frequency, period measurements</td>
<td>0 cps to 10 MC</td>
<td>$2,150.00</td>
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<tr>
<td>-hp- 525A</td>
<td>Video Amplifier</td>
<td>Increases sensitivity of -hp- 524B</td>
<td>10 cps to 10 MC</td>
<td>$150.00</td>
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<tr>
<td>-hp- 526A</td>
<td>Time Interval Unit</td>
<td>Used with -hp- 524B to measure time interval</td>
<td>Range: 1 μsec to 10 seconds</td>
<td>$175.00</td>
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<tr>
<td>-hp- 512A</td>
<td>Nuclear Scalar</td>
<td>For counting high-rate pulses</td>
<td>Capacity 100 counts in 2 decades, 10,000,000 pps counting rate</td>
<td>$150.00</td>
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<tr>
<td>-hp- 513A</td>
<td>Optical Counter</td>
<td>Measures optical counter frequency</td>
<td>Wide range, frequency, period, time interval measurements</td>
<td>$150.00</td>
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<tr>
<td>-hp- 521B</td>
<td>Transfer Oscillator</td>
<td>Measures frequency of CW, pulse, or FM'd signals</td>
<td>Frequency, period, time interval measurements</td>
<td>$150.00</td>
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<tr>
<td>-hp- 540A</td>
<td>Frequency Monitor</td>
<td>Measures frequency of CW, pulse, or FM'd signals</td>
<td>Frequency, period, time interval measurements</td>
<td>$150.00</td>
</tr>
</tbody>
</table>

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*Includes new lightweight all-metal cabinet with carrying handles. Also available for rack mounting at slightly lower prices. Data subject to change without notice. Prices $0.00.*
Microwave Impedance Measuring Equipment

**-hp- 415B STANDING WAVE INDICATOR**
For all waveguide or coaxial slotted sections. Gives readings in SWR or db. Single frequency operation; 315 to 3,000 cps. Low noise level, 0.1 uV (full scale) sensitivity, 60 db. calibr. attenuator. $200.00.

**-hp- 416A RATIO METER**
Automatically combines forward and reverse signals and displays their ratio, irrespective of amplitude variations. Contains rf power monitor indicating proper power level. Rear terminal signal available to operate oscilloscope or recorder. Suitable for single and swept frequency operation. $450.00.

**-hp- Waveguide Test Equipment — 2.6 to 40.0 KMC**
Basic, low-cost elements offer utmost flexibility for assembly of exact instrumentation required. Each unit covers entire range of its waveguide size. Simple, sturdy mechanical design; accurate, multi-purpose operation.

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Coastal Type N Conn.</th>
<th>31/2 x 1/2”</th>
<th>31/2 x 9/8”</th>
<th>11/4 x 1/2” x 9/8”</th>
<th>11/4 x 1/2” x 7/8”</th>
<th>11/4 x 1/2” x 7/8”</th>
<th>11/4 x 1/2” x 7/8”</th>
<th>11/4 x 1/2” x 7/8”</th>
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</thead>
<tbody>
<tr>
<td>Adapter, Waveguide to Coax</td>
<td>$50.00</td>
<td>$75.00</td>
<td>$90.00</td>
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<td>$120.00</td>
<td>$140.00</td>
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<td>Cover to Choke Range</td>
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<td>$120.00</td>
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<td>Attenuators, Fixed 3, 6, 10, 20 db</td>
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<td>$100.00</td>
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<td>$175.00</td>
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<td>Flap, 25 db max.</td>
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<td>$100.00</td>
<td>$125.00</td>
<td>$150.00</td>
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<td>Calibrated, precision</td>
<td>$75.00</td>
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<td>Detector Mounts</td>
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<td>$75.00</td>
<td>$100.00</td>
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<td>Isolators</td>
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<tr>
<td>Thermistor Mounts (Fixed tuned)</td>
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<td>Flanged Sections, Waveguide</td>
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<td>E-H</td>
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<td>$125.00</td>
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<td>$100.00</td>
<td>$125.00</td>
<td>$150.00</td>
<td>$175.00</td>
<td>$200.00</td>
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<td>Terminations, High Power</td>
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<td>$125.00</td>
<td>$150.00</td>
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<td>Broad Band Probe, Tuned</td>
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<td>$100.00</td>
<td>$125.00</td>
<td>$150.00</td>
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<td>$200.00</td>
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<tr>
<td>Broad Band Probe, Untuned</td>
<td>$50.00</td>
<td>$75.00</td>
<td>$100.00</td>
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<td>All frequencies</td>
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<td>$150.00</td>
<td>$175.00</td>
<td>$200.00</td>
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</tr>
</tbody>
</table>

*For use with barrett or crystal. **For use with barrett only. *Complete assembly including carriage. §Mounts in 8098 Carriage—See next page. **Includes Thermistor, Installed. See page 5. §Includes barrett; checked for square law characteristics.

△ Includes new lightweight all-metal cabinet with carrying handles. Also available for rack mounting at slightly lower prices.

Data subject to change without notice. Prices f.o.b. factory.
Microwave Power Measuring Equipment

**-hp- 430C MICROWAVE POWER METER**
No computations! Provides instantaneous, automatic power readings direct in mw at all frequencies for which there are suitable bolometer mounts. For CW measurements, uses either 1/100 amp. fuse or Sperry 821 barretter. Also measures CW or pulsed power with negative coefficient thermistor. Provides up to 16 dbf reading. Operates with all mounts in adjacent table. $250.00.

**-hp- 764D-767D DUAL DIRECTIONAL COUPLERS**
New high directivity dual coaxial couplers make reflectometer measurements practical in vhf and uhf coax systems. Flat response, high power capability. Four models, covering 216 to 4,000 MC collectively. $125.00.

**-hp- 477B COAXIAL THERMISTOR MOUNT**
For frequency range 10 MC to 10 KMC, SWR less than 1.5. Thermistor element is 200 ohm negative. $75.00 (including thermistor).

**-hp- 487A THERMISTOR MOUNT**
For convenience, all-purpose -hp- 809B carriage operates with six different -hp- slotted sections, waveguide and coaxial. Mounts sections covering frequencies 3,000 to 18,000 MC—sections interchange in 30 seconds! Precision-built carriage calibrated in mm 0.01; dial gauge may be mounted. Operates with -hp- 422B Broad Band Probe and -hp- 440A Coaxial Detector in combination, or with -hp- 444A Untuned Probe.

**-hp- 809B UNIVERSAL PROBE CARRIAGE**
- hp- 810 WAVEGUIDE SLOTTED SECTIONS
Convenient, all-purpose -hp- 809B carriage operates with six different -hp- slotted sections, waveguide and coaxial. Mounts sections covering frequencies 3,000 to 18,000 MC—sections interchange in 30 seconds! Precision-built carriage calibrated in mm 0.01; dial gauge may be mounted. Operates with -hp- 422B Broad Band Probe and -hp- 440A Coaxial Detector in combination, or with -hp- 444A Untuned Probe.

**-hp- 420A/B CRYSTAL DETECTORS**
Employs a silicon crystal to detect rf signals in Type N coaxial line. Covers frequencies 10 MC to 12.5 KMC. Model 420B, for reflectometer measurements, $75.00. 420A, $50.00. Uses modified 1N26 crystal.

**-hp- 382A PRECISION ATTENUATOR**
Precision broadband attenuation to 50 db. Completely independent of frequency; phase shift constant at all attenuations. Calibrated range 0 to 50 db, maximum error ± 2% of db reading. G, J, H, X and P bands available covering 3,950 to 18,000 MC. SWR less than 1.15 full range.

**-hp- 281A WAVEGUIDE- COAX ADAPTERS**
For convenient transition between waveguide and coax systems. Each unit covers a full waveguide range with SWR less than 1.25. Equipped with Type N connectors.

**-hp- 444A UNTUNED PROBE**
A 1N26 crystal plus small antenna in a convenient, easy-to-use housing. Variable penetration depth, no tuning required. Sensitivity equal to single- or double-tuned probes. Frequency range: 2.6 to 18.0 KMC. Mounts in 809B Carriage.

**-hp- 487A THERMISTOR MOUNT**
For fast, accurate waveguide power measurements. Each mount covers full range of its waveguide frequency. No tuning required. SWR less than 1.5. Bundled construction, high temperature coefficient constant. Thermistors virtually eliminate delays due to detector element burn-out.

**-hp- 885A PHASE SHIFTER**
For accurate, precisely controlled phase variation throughout frequency band. Ideal for microwave impulse, transmission measurements, antenna and system design. Direct reading, low power absorption, 360° (electrical) range.

**-hp- 752 MULTI-HOLE COUPLER**
Directional couplers available in 2 models with coupling factors of 0.3, 0.10 and 0.25 db ± 0.3 db over full range of a waveguide. SWR better than 1.05. Directivity 40° or better over entire range. Available as a 3-terminal equal power splitting network.

**-hp- 485B DETECTOR MOUNTS**
To measure power over complete waveguide range in conjunction with -hp- 430C. Uses Agnew of Meter and barretter. Also measures relative level, or detects rf energy using 1N21 orу1N25 crystal. Semi-tuned by movable short to SWR 1.25.

**-hp- X532A FREQUENCY METER**
Inexpensive, general-purpose, direct-reading. Consists of high Q resonant cavity tuned by choke plunger; no sliding contacts. Full range coverage 8.2 to 12.4 KMC, accuracy 0.08%, resettability 0.01%. 1 db output dip indicates resonance. No backlash. $125.00.

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**Equipment below available for most waveguide frequencies**

See table at left for data, prices.

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Primary Uses</th>
<th>Frequency Range</th>
<th>Characteristics</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>-hp- 430C</td>
<td>Microwave Power Meter</td>
<td>Depends on Bolometer mount</td>
<td>0.1 to 10 mw ± 5% accuracy</td>
<td>$250.00</td>
</tr>
<tr>
<td>-hp- 475A</td>
<td>Tunable Boltometer Mount</td>
<td>1,000 to 4,000 MC</td>
<td>Matches 50 ohm line to 100 or 200 ohms</td>
<td>200.00</td>
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<tr>
<td>-hp- 475A</td>
<td>Universal Boltometer Mount</td>
<td>10 to 1,000 MC</td>
<td>No tuning required, SWR less than 1.25</td>
<td>85.00</td>
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<tr>
<td>-hp- 477B</td>
<td>Coaxial Thermistor Mount</td>
<td>10 to 10,000 MC</td>
<td>Broad band, low SWR, no tuning</td>
<td>75.00</td>
</tr>
<tr>
<td>-hp- 485B</td>
<td>Waveguide Detector Mount</td>
<td>2,600 to 18,000 MC</td>
<td>Full coverage of waveguide band</td>
<td>See Table page 4</td>
</tr>
<tr>
<td>-hp- 487A</td>
<td>Waveguide Thermistor Mount</td>
<td>4,000 to 4,000 KMC</td>
<td>Full coverage, no tuning, 1% accuracy</td>
<td>See Table page 4</td>
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<tr>
<td>-hp- 764D</td>
<td>Dual Directional Coupler</td>
<td>Reflectometer and rf power measurements</td>
<td>Coupling attenuation* 25 db, directivity 30 db</td>
<td>125.00</td>
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<tr>
<td>-hp- 765D</td>
<td>Dual Directional Coupler</td>
<td>Reflectometer and rf power measurements</td>
<td>Coupling attenuation* 25 db, directivity 30 db</td>
<td>125.00</td>
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<tr>
<td>-hp- 766D</td>
<td>Dual Directional Coupler</td>
<td>Reflectometer and rf power measurements</td>
<td>Coupling attenuation* 25 db, directivity 26 db</td>
<td>125.00</td>
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<tr>
<td>-hp- 767D</td>
<td>Dual Directional Coupler</td>
<td>Reflectometer and rf power measurements</td>
<td>Coupling attenuation* 25 db, directivity 26 db</td>
<td>125.00</td>
</tr>
</tbody>
</table>

*Power handling capacity all 764/767 series couplers 50 watts CW, 10 Kw peak.

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△ Includes new lightweight all-metal cabinet with carrying handles. Also available for rack mounting at slightly lower prices.

Data subject to change without notice. Prices F.o.b. factory.
**-hp- Signal Generators - 10 to 21,000 MC**

**-hp- 608D vhf SIGNAL GENERATOR**
10 to 420 MC. Highest stability. No incidental FM or frequency drift. Calibrated output 0.1 µv to 0.5 v throughout range. Built-in crystal calibrator provides frequency check accurate within 0.01% each 5 MC. Master oscillator, intermodulation and output amplitude circuit design. Premium quality performance, direct calibration, ideal for aircraft communications equipment testing. $1,050.00.

**-hp- 608C vhf Signal Generator**
High power (1 v max.) stable, accurate generator for lab or field use. 10 to 480 MC. Ideal for testing receivers, amplifiers, driving bridges, slotted lines, antennas, etc. $950.00.

**-hp- 626/628A uhf SIGNAL GENERATORS**
New instruments, bringing high power, wide range, controllability and accuracy to 10 to 21 KMC range. Frequencies, output voltage directly set and read. Output to 20 db better than previous stop-frequency sets. SWR better than 1.2 at 0 dbm and lower. Internal pulse, FM or square wave modulation; also external pulsing or FM'ing. -hp- 626A, 10 to 15.5 KMC, $3,250.00. -hp- 628A, 15 to 21 KMC, $3,000.00.

**-hp- 212A PULSE GENERATOR**
Provides continuously variable, highly variable, high power "fast pulses" of superior wave form. Combines broad general usefulness with 0.02 usec rise and decay time to meet requirements of radar, TV and nuclear work. Pulse length variable 0.07 to 10 usec; minimum overvoltage and accuracy to 10 to 21,000 MC. Free running or external sync. Variable delay. Direct calibration. $565.00.

**-hp- Regulated Power Supplies**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Primary Uses</th>
<th>Characteristics</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>-hp- 715A Power Supply</td>
<td>For low power beam and permanent setups</td>
<td>100 to 360 volts at 75 milliamperes</td>
<td>100.00</td>
</tr>
<tr>
<td>-hp- 715A Power Supply</td>
<td>For powering experimental bench setups requiring wide voltage range, low power</td>
<td>0 to 500 volts at 100 milliamperes</td>
<td>225.00</td>
</tr>
<tr>
<td>-hp- 718B Power Supply</td>
<td>For low power klystrons</td>
<td>Beam 250 to 400 volts at 50 milliamperes. Reflector 0-900 volts</td>
<td>300.00</td>
</tr>
<tr>
<td>-hp- 717A Power Supply</td>
<td>For low power klystrons</td>
<td>Beam 250 to 400 volts at 50 milliamperes. Reflector 0-900 volts</td>
<td>300.00</td>
</tr>
</tbody>
</table>

**-hp- Square Wave and Pulse Generators**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Characteristics</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>-hp- 670M Square Wave Generator</td>
<td>1 cps to 1 MC</td>
<td>Output 55 v peak to peak into 600 ohm load, 0.02 usec rise time. Low or high impedance output.</td>
</tr>
<tr>
<td>-hp- 612A Pulse Generator</td>
<td>50 to 5,000 pps</td>
<td>Output 50 v peak into 50 ohm load. Free running or external sync. Variable delay. 0.02 usec rise time</td>
</tr>
</tbody>
</table>

**-hp- 712B Bower Supply**

-hp- 712B Bower Supply

This new -hp- instrument features high regulation of 0.01%, 0.1 millisecond transient response, internal impedance 0.1 ohms in series with 25 µH; full-load maximum hum less than 500 µv, sealed transformers, chokes and condensers. 0 to 500 v, 200 ma supply and fixed 500 v tap providing 50 ma, 300 to 600 v variable supply for klystron operation. $565.00.

\[ \text{\(\triangle\)} \text{Includes new lightweight all-metal cabinet with carrying handles. Also available for rack mounting at slightly lower prices.}\]

\[ \text{\(\triangle\)} \text{Data subject to change without notice. Prices f.o.b. factory.} \]
Amplifiers for General Use and Fast-Circuit Work

-**hp-** TRAVELING-WAVE TUBE AMPLIFIERS

Now **hp** offers Traveling-Wave Tube Amplifiers for all frequencies 2 to 12.4 KMC. **hp** 490B, 2 to 4 KMC, supersedes **hp** 490A and is similar except for 30 db gain and helix modulation provision. **hp** 491, also 2 to 4 KMC, has higher output of 1 watt. **hp** 492A and 494A are low level, high gain amplifiers with 30 and 25 db gain; they offer amplitude, pulse, phase or FM modulation. All amplifiers have exclusive **hp** helical coupling system, and employ encapsulated traveling-wave tubes that can be readily replaced. **hp** 490B/491A, $1,100.00. **hp** 492A/494A, $1,500.00.

-**hp-** 460A/B FAST PULSE AMPLIFIERS

**hp** 460A Wide Band Amplifiers, in cascade with **hp** 460B Fast Pulse Amplifiers, provide up to 90 db gain, 125 v open circuit. This permits full deflection of SXP CRT, or 2" deflection of SCP tubes. Rise time 0.0026 usec. Will amplify millimicrosecond pulses. Over 100 MC bandwidth for 'scopes. **hp** 460A, $185.00. **hp** 460B, $225.00.

-**hp-** Low Frequency, High Frequency Oscilloscopes

A completely new design philosophy enables these new instruments to set revolutionary standards for oscilloscope usefulness, convenience and long-term dependability.

Both instruments have universal automatic triggering where one preset adjustment provides optimum triggering for all conditions. Other features include unitized circuits, etched, mounted on "see-through" plastic; highest quality components, ultra conservative design; concentric color-coded controls, direct sweep-time selection.

-**hp** 130A Low Frequency Oscilloscope has 1 mv/cm sensitivity, dc to 300 KC, sweeps 1 usec/cm to 15 sec/cm, may be triggered by internal source, line voltage or external sources 2 v or more, 21 calibrated ranges, direct reading. Similar vertical, horizontal amplifiers, input attenuator; 14 ranges, continuous vernier. Amplitude calibration 1 KC square wave, 5% accuracy. $450.00.

-**hp** 150A High Frequency Oscilloscope, dc to 10 MC, has plug-in pre-amplifiers offering either high gain or dual trace. Model 150A sweeps 0.02 usec/cm to 15 sec/cm. 24 calibrated sweep ranges, direct reading. Triggered internally, line voltage, or externally. Horizontal amplifier with magnification feature expanding horizontal sweep 5, 10, 50 or 100 times. Vertical amplifier rise time less than 0.055 usec; signal delay line permits leading edge of triggering signal to be seen. Amplitude calibrator 18 1 KC square wave voltages, accuracy 3%. Supplied separately are: **hp** 151A High Gain Amplifier, $100.00 and **hp** 152A Dual Channel Amplifier, $200.00. **hp** 150A Oscilloscope (without plug-in amplifiers), $1,000.00.

Cabinet, End Frame, Or Rack Mounting

To give you greatest flexibility in your setup, **hp** equipment having the standard 19" panel can be mounted in the new, streamlined all metal cabinets; with end frames; or in standard relay racks. **hp** AC-44 aluminum-and-steel cabinets are attractive, sturdy, easily removable, equipped with carrying handles. With instrument, $15.00. Separate $25.00.

Smaller **hp** instruments, too, are now being delivered in new-streamlined cabinets. This rugged, lightweight metal cabinet is now offered with such instruments as **hp** 200AB, 200CD, 410B and 715A.

Many **hp** instruments are basically rack mounting and can be installed directly in 19" racks. Other instruments can be equipped for relay rack mounting at slight additional charge. Write for details.
In electronic test instruments, Hewlett-Packard gives you complete coverage several different ways.

**In development** — *hp*-engineer teams are continually at work designing and producing accurate, helpful new instruments that meet and anticipate the demands of electronics.

**In instrumentation** — the *hp*-line is the world's largest and most complete. You choose from over 250 instruments the ones that provide exactly the measuring coverage you require.

**In frequency coverage** —indicates the world's largest and most complete. You choose from over 250 instruments the ones that provide exactly the measuring coverage you require.

**In personal service** — *hp*-has selected the best independent organizations to give you personal help with measuring problems. Electronic specialists—men trained by Hewlett-Packard—save you time by helping select the exact *hp*-instrumentation you need—and following through to be sure the equipment is properly utilized to serve you best. These men are located in major business centers—as near as your telephone. Call them when you need personal help—in your plant, today.