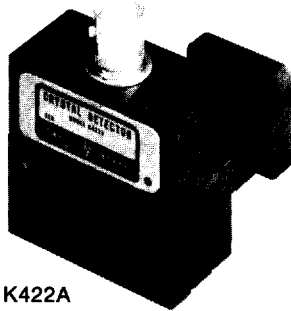


# MICROWAVE TEST EQUIPMENT

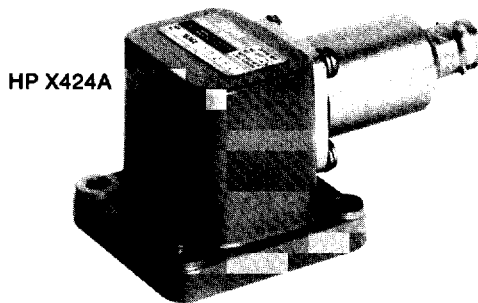
## Waveguide Crystal Detectors; Frequency Meters

Models 422A, 424A, 532 Series, 536A, 537A

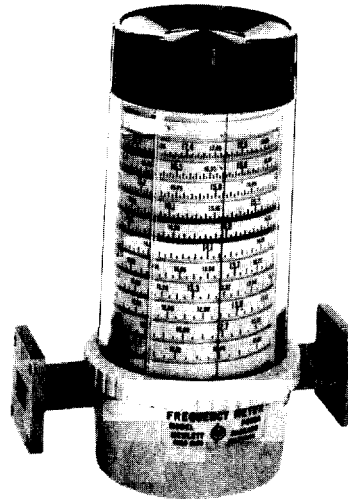
565



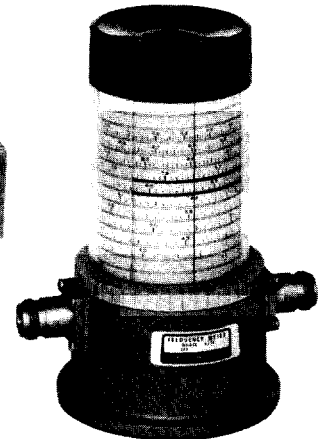
HP K422A



HP X424A



HP P532A



HP 537A

### HP 422 Series, 424 Series Crystal Detectors

The HP 422A and 424A families of Crystal Detectors combine high sensitivity with flat frequency response and low SWR to provide waveguide band coverage from 8.2 to 40 GHz. They deliver between 0.2 and 0.4 mV/ $\mu$ W output at low level and handle 100 mW peak input. SWR ranges from 1.35 at H-band to 3 at R-band.

For reflectometer applications in which both flat frequency response and square-law characteristics are important, these models can be supplied as matched pairs (Option 001) and with optimum square-law loads (Option 002).

### HP 422 Series, 424 Series Waveguide Crystal Detector Specifications

HP Model	Frequency Range (GHz)	Frequency Response (dB)	Option 001 Matched Response (dB)	Option 003 Positive Polarity Output Available	Waveguide & Equivalent Flange	Price
X424A	8.2-12.4	$\pm 0.3$	$\pm 0.3$ dB	Yes	WR90 UG-135/U	\$300
P424A	12.4-18.0	$\pm 0.5$	$\pm 0.5$ dB	Yes	WR62 UG-419/U	\$340
K422A	18.0-26.5	$\pm 2$	$\pm 1$ dB	N/A	WR42 UG-595/U	\$800
R422A	26.5-40.0	$\pm 2$	$\pm 1$ dB	N/A	WR28 UG-599/U	\$800

Option 001: Matched response. Must order two (2) option 001's for a pair of detectors with matched frequency response.

Option 002: optimum square-law load.

Option 003: positive polarity output.

#### Option Prices

HP Model	Opt. 001	Opt. 002	Opt. 003
K422A	add \$45	add \$20	N/A
P424A	add \$20	add \$20	N/C
R422A	add \$45	add \$20	N/A
X424A	add \$20	add \$20	N/C

### HP 532 Series, 536A, 537A Frequency Meters

These direct-reading frequency meters measure frequencies from 8.2 to 40 GHz in waveguide and from 960 MHz to 12.4 GHz in coax quickly and accurately. Their long scales and numerous calibration marks provide high resolution which is particularly useful when measuring frequency differences or small frequency changes. Frequency is read directly in GHz so neither interpolation nor charts are required.

The instruments comprise a special transmission section with a high-Q resonant cavity which is tuned by a choke plunger. A 1 dB or greater dip in output indicates resonance; virtually full power is transmitted off resonance. Overall accuracy of each frequency meter includes allowance for 0 to 100 percent relative humidity and temperature variation from 13 to 33°C.

### HP 532 Series, 536A and 537A Specifications

HP Model	Frequency Range (GHz)	Overall Accuracy (%)	Calibration Increment (MHz)	W/G-Coax Equivalent Flange (Connector)	Price
536A	0.96-4.20	0.96 to 1 GHz: 0.22 1 to 4.2 GHz: 0.17	2	Coax Type N(f)	\$1600
537A	3.7-12.4	0.170	10	Coax Type N(f)	\$1200
X532B	8.20-12.4	0.080	5	WR90 UG-39/U	\$1155
P532A	12.4-18.0	0.100	5	WR62 UG-419/U	\$1155
K532A	18.0-26.5	0.110	10	WR42 UG-595/U	\$1540
R532A	26.5-40.0	0.120	10	WR28 UG-599/U	\$1540