

Single Band Sweepers

- Four Models Cover 0.5 to 1400 MHz
- Complete Sweep and Marker System
- Programmable Frequency, Level and Sweep Width
- True Signal Generator Operation
- + 13 to - 77 dBm Calibrated Output

Frequency Coverage to 1400 MHz

Four 1000 Series models, each with a different frequency range, allow meeting specific sweep/signal generator requirements at a minimum cost. These solid state general purpose generators cover the frequency ranges as follows:

Model	Range
1001A	0.5 to 300 MHz
1002	1 to 500 MHz
1004	500 to 1000 MHz
1005	700 to 1400 MHz

Modular construction and state-of-the-art techniques provide each of these units with outstanding performance.

Sweep System

Sweep time is continuously adjustable from 50 sweeps/second to

1 sweep/100 seconds. Sweep modes include repetitive sweep, manual, triggered single sweep and line lock.

Marker System

The instrument includes provision for an optional crystal controlled birdy bypass marker system. Up to eight plug-in marker modules, each with an individual on/off switch, may be added to the marker system. The markers may be at single discrete frequencies (Option A-1) or at harmonically related frequencies (comb type markers, Option A-2).

All markers can be specified with the instrument or ordered at a later date for field installation. In application, the markers may be tilted up to 90° for easy viewing when displayed with steep transition signals.

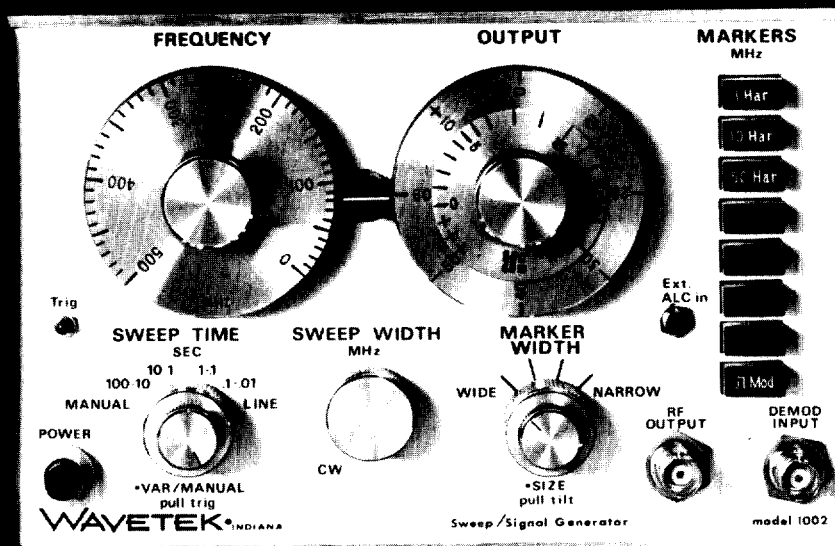
In addition to the optional markers, the unit can accept a 100 mV external marker input signal for conversion to a birdy marker.

Signal Generator Operation: CW, AM and FM

CW Operation, Low Residual FM and excellent oscillator stability make the 1000 Series units ideal signal generators. The calibrated output of these units may be amplitude or frequency modulated.

Options

In addition to single frequency and harmonic marker options, the 1000 Series can be ordered with a square wave generator (Option A-4) and a pen lift (Option A-5).



SERIES 1000

SWEEP GENERATORS

RF FREQUENCY**Frequency Range**

- 0.5 to 300 MHz (1001A).
- 1 to 500 MHz (1002).
- 500 to 1000 MHz (1004).
- 700 to 1400 MHz (1005).

Dial Calibration

- 10 MHz intervals (1001A, 2 and 4).
- 20 MHz intervals (1005).

Accuracy

Better than 1% of full scale.

Vernier Dial

Expands main frequency dial $\pm 1\%$ of full scale frequency, giving a 50:1 increase in resolution.

Sweep Width

- 0.2 to 300 MHz (1001A).
- 0.2 to 500 MHz (1002).
- 0.4 to 500 MHz (1004).
- 0.5 to 700 MHz (1005).
- Log taper is provided for resolution at narrow sweep widths.

Display Linearity

2%.

Spurious Signals

- 1001A and 1002 > 30 dBc.
- 1004 and 1005 > 26 dBc.

Residual FM

- Less than 7.5 kHz pk (1001A and 2).
- Less than 5 kHz pk (1004).
- Less than 10 kHz pk (1005).

Drift

Less than 100 kHz/5 minutes.
(1005: < 200 kHz/5 minutes.)

NOTE: Measured at constant ambient, after 1 hour warm-up and allowing a 5 minute stabilization period after a change in center frequency.

Blanking

Blanking of RF output in sweep mode and removed in CW.

RF OUTPUT**Impedance**

50 Ω (75 Ω available on 1001A, 1002 and 1004 at no additional cost).

Maximum Output Amplitude

- + 13 dBm, 1 Vrms (1001A and 1002).
- + 10 dBm, 0.7 Vrms (1004 and 1005).

Output Flatness

- ± 0.25 dB (1001A, 1002 and 1004).
- ± 0.5 dB (1005).

Attenuation

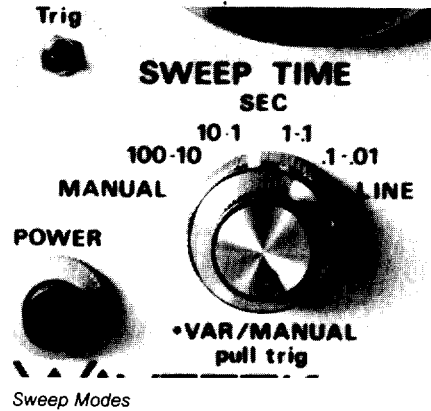
90 dB; 70 dB in 10 dB steps plus 0 to 20 dB PIN diode attenuator.

Accuracy

- ± 0.5 dB to 500 MHz.
- ± 1 dB to 1000 MHz.
- ± 2 dB to 1400 MHz.

SWEEP CHARACTERISTICS**Sweep Modes**

Repetitive sweep, triggered single sweep, manual and line lock.

**Sweep Time**

Continuously adjustable in 4 overlapping ranges from 50 sweeps/second to 1 sweep/100 seconds.

Horizontal Output

16V p-p, symmetrical about ground (0 to +10V available upon request) synchronized with sweep oscillator.

MARKER SYSTEM**RF MARKERS**

Provisions for up to 8 crystal-controlled plug-in bypass markers, plus external marker input. Markers may be either discrete frequency (option A-1) or harmonic type (option A-2).

Accuracy

0.005%.

Amplitude

Adjustable from 1 mV to 1V p-p.

Width

Adjustable in 4 incremental steps from approximately 15 to 400 kHz.

Tilt

Rotates from vertical to approximately 90°.

External Marker Input

BNC connector accepts external CW signal for conversion into birdy markers. Input level of at least 100 mV into 50 Ω is necessary.

Recorder Processing

Internal switch removes negative portion of birdy markers for use with X-Y recorders.

REMOTE PROGRAMMING

Rear mounted jack provides necessary connections for remote control of center frequency, sweep width and 20 dB vernier output control.

External FM

± 16 V results in full deviation with maximum modulation rate of 4 kHz. With reduced deviation, modulation rates of up to 100 kHz are possible.

External AM

0 to -18V signals are applied to 20 dB vernier output attenuator. With average voltage set to midrange, 100% modulation is obtainable up to 1 kHz, 40% modulation up to 40 kHz.

External Leveling

Front panel jack accepts negative dc input from external monitoring device.

GENERAL**Dimensions**

20.9 cm (8 $\frac{1}{4}$ in.) wide; 14.3 cm (5 $\frac{3}{4}$ in.) high; 34.9 cm (13 $\frac{3}{4}$ in.) deep.

Weight

9.1 kg (20 lb) net; 11.4 kg (25 lb) shipping.

Power

115 or 230V $\pm 10\%$; 50 to 400 Hz; approximately 20 watts.

OPTIONS**A-1****\$80**

Single Frequency Marker.
1 to 1400 MHz. Specify frequency.

A-2**\$100**

Harmonic Type Marker.
Comb type frequency markers at 1, 5, 10, 50 or 100 MHz. Specify frequency.

NOTE: Harmonic type 0.1 MHz markers with associated 1.0 MHz markers are available. \$200

A-4**\$80**

1 kHz square wave generator.
Plug-in module provides square wave modulation of RF output.

A-5**\$40**

Pen Lift.
Provides contact closure during forward sweep trace. Binding post terminals are provided on rear panel.

ACCESSORIES**Model K103****\$50**

Rack Mount (for mounting one unit).

Model K104**\$55**

Rack Mount (for mounting two units).

PRICE (FOR Beech Grove)**Model 1001A, 1002, 1004 or 1005****\$1800**