

1000 MHz Single Band Sweepers

- Frequency Range 1 to 1000 MHz
- CW, ΔF and Full Sweep Modes
- Digital Readout
- 1% Display Linearity
- Auto Zero

Series 1080 compact and economical sweep generators feature simple operation, 1% display linearity, digital readout and three operating modes: CW, ΔF and full sweep. Models 1080 and 1081 have the same frequency range but different power output levels.

CW, ΔF , Full Sweep

Frequency in CW mode is set by a ten-turn control and displayed with 1 MHz resolution on a 3½ digit display. In ΔF mode, sweep width range (200 kHz to 1000 MHz max) is

set by a 100 MHz/Step selector and a 100 MHz vernier. In full sweep mode, the frequency control and display operate as a variable marker.

Power Output

Model 1080 has an output power range of +13 to -70 dBm into 50 Ω and is continuously adjustable with a 10 dB/Step attenuator and an 11 dB vernier. Output level is displayed on a 3½ digit readout with 0.1 dB resolution. An "auto-zero" circuit improves frequency accuracy. Model 1081 is a 75 Ω version

with a calibrated output of +60 to -10 dBmV.

Marker System

The birdy bypass marker system in the Series 1080 is controlled by a front-panel switch for selection of harmonic markers at 1, 10 and 100 MHz. Differences in marker amplitudes make identification of markers easy, and marker width is adjustable for optimum wide and narrow band operation. A calibrated variable marker is provided in the full sweep mode. External marker input is standard.



SERIES 1080

SWEEP GENERATORS

FREQUENCY

Range

1 to 1000 MHz.

Readout

3 1/2 digit vacuum Fluorescent display.

Resolution

1 MHz.

Accuracy

CW, Center Frequency of ΔF , and Variable Marker: ± 10 MHz. Frequency accuracy can be improved to ± 1 MHz at a specific frequency.

Sweep Width at 100 MHz Intervals: ± 10 MHz.

Sweep Width

ΔF , 200 kHz to 1000 MHz.

Full Sweep: Same as range.

Display Linearity

1% at maximum sweep width.

Operating Modes

CW, ΔF , and Full Sweep

Drift

<200 kHz for 10 min.

NOTE: At a constant temperature after 1/2 hour warm up.

RF OUTPUT

Impedance

Model 1080: 50 Ω .

Model 1081: 75 Ω .

Power Level Range

Model 1080: +13 to -70 dBm.

Model 1081: +60 to -10 dBmV.

Output Flatness

± 0.25 dB.

Attenuation

Continuously adjustable in 10 dB steps with an 11 dB vernier. Output level is displayed on a 3 1/2 digit readout with 0.1 dB resolution.

Accuracy

Step Attenuator: ± 0.3 dB +1% of attenuation.

Vernier Attenuator: ± 0.5 dB.

Output Connector

Type BNC.

SPECTRAL PURITY

Harmonic Output

1 to 2 MHz: < -15 dBc;

2 to 10 MHz: < -25 dBc;

10 to 1000 MHz: < -30 dBc in 1 to 2000 MHz band.

Nonharmonics

1 to 400 MHz: < -50 dBc;

400 to 1000 MHz: < -35 dBc.

Residual FM (CW Mode)

<10 kHz peak.

SWEEP CHARACTERISTICS

Sweep Modes

Recurring and single sweep.

Sweep Time

Fast: 0.010 to 1s (typical).

Slow: 1 to 100s (typical).

Line: Approximately 1/2 of AC line period.

Horizontal Output

0 to 10V, 1000 Ω impedance.

Blanking

RF output is blanked during sweep retrace.

MARKER SYSTEM

RF Markers

Birdy bypass marker system is controlled by front-panel switch which provides selection of harmonic markers in these combinations: 100 MHz only; 100 MHz and 10 MHz; or 100 MHz, 10 MHz and 1 MHz.

Accuracy

$\pm 0.005\%$.

Amplitude

Adjustable from approximately 1 mV to 250 mVp-p.

Width

Adjustable from approximately 10 to 500 kHz.

Variable Marker

(Full Sweep Mode Only.) 10-turn potentiometer and 3 1/2 digit frequency display function as a variable marker. Marker produces a bright spot on the display by momentarily delaying sweep ramp for approximately 2 ms. Accuracy is ± 10 MHz.

External Marker

BNC input accepts CW signal for conversion to a birdy marker. Input level must be ≥ 100 mV into 50 Ω .

REMOTE PROGRAMMING

Frequency

Rear-panel jack permits remote control of center frequency, sweep width and external frequency modulation.

Level

Rear-panel jack permits external control of RF output level over greater than 13 dB range.

Trigger

TTL input, during high to low transition. Also, by contact closure to ground.

OUTPUTS

Pen Lift

Contact closure during sweep.

Blanking

-15V during sweep, +15V during retrace.

Sweep

0 to 10V.

Reference

Output of 1V/100 MHz.

Power Supply

+18V, -18V, and common. External current limited to 10 mA.

GENERAL

Dimensions

28.6 cm (11 1/4 in.) wide; 13.3 cm (5 1/4 in.) high; 26.7 cm (10 1/2 in.) deep.

Weight

4.9 kg (10.8 lb) net; 6.8 kg (15 lb) shipping.

Power

90 to 110V; 105 to 125V;

190 to 220V; or 210 to 250V;

50 to 60 Hz; approximately 35 watts.

ACCESSORIES

K019

\$75

Rack Mount Kit adapts the instrument for center mounting in a standard 19 in. rack. 6 31/32 in. height.

FACTORY/FOB

Beech Grove, IN

PRICE

Model 1080

\$3550

Model 1081

\$3550