Synthesized AM/FM Signal Generator

- 10 KHz to 1040KHz frequency range
- AM, PM and FM modulation
- -127dBm to +6dBm output level
- Self Test and Calibration capabilities
- 25W reverse power protection
- 100 location memory for storing Frequency, modulation and output level data
- Optional GPIB interface

B1240

SPECIFICATIONS

Frequency:
Range: 10KHz to 1040MHz
Display Resolution:
10Hz (10KHz to 520MHz), 20Hz (520MHz to 1040MHz)
Accuracy: ±1.5 x 10^{-6} after 20 minutes of warm up

Output Characteristics:
Output level Range: -127dBm to + 6dBm
Display Resolution: 0.1dB
Accuracy: ±1dB (> -10dBm), ±2dB (< -10dBm)
Amplitude Flatness:
< 0.5dB (10KHz to 1040KHz, -10dBm to +6dBm)
Output impedance: 50Ω
Amplitude Units: dBm and dBμ
Output Protection: 25W of reverse power

Spectral Purity:
Spurious:
Better than -35dB at carrier frequency < 62.5MHz and 0dBm
Better than -25dB at carrier frequency > 62.5MHz and 0dBm
Residual Modulation: FM: 7Hz, AM: 0.05%

Modulation

FM:
Deviation:
0 to 100KHz (1Mz to 1040MHz)
Carrier Freq. x 10% (below 1MHz)
Resolution:
10Hz (0 to 10KHz deviation)
100Hz (10KHz to 100KHz deviation)
Accuracy: ±5% for 1KHz or 400Hz modulation
Frequency Response: ±0.5dB (50Hz to 50KHz)
Distortion: < 2% THD (1KHz Mod., Max deviation and Carrier Freq. > 250KHz)

PM:
Range: 0 to 10 Radians
Resolution: 0.01 Radians
Frequency Response: ±1dB (10KHz to 10KHz)
Deviation Accuracy: ±5% at 1KHz Modulation

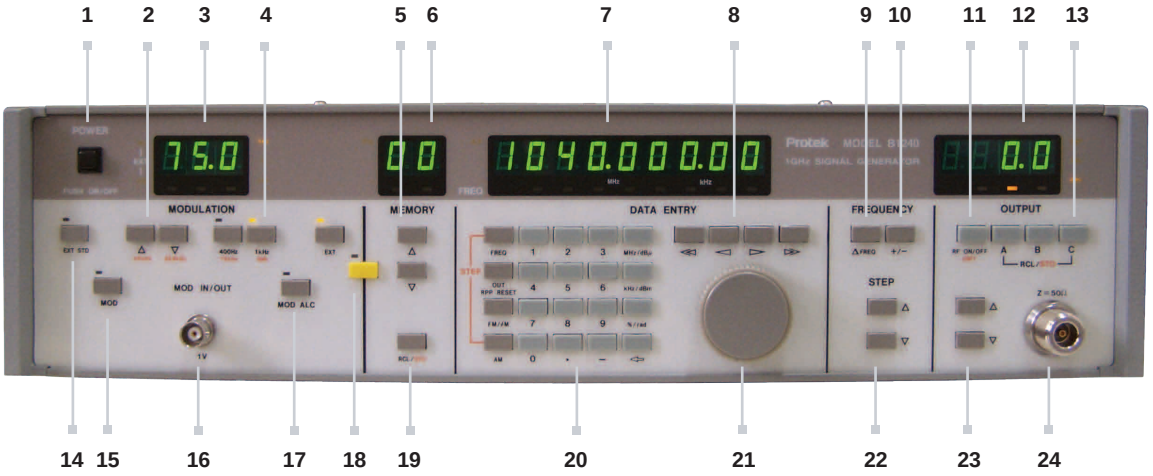
AM:
Range: 0 to 99%
Resolution: 0.5%
Accuracy: better than ±4% of depth setting + 1% at 1KHz
Frequency Response: ±0.5% (50Hz to 50KHz)
Envelope Distortion: < 3% THD (at 70% mod and 1KHz)
Modulation Oscillator: Frequency: 1KHz and 400Hz
External modulation Input:
Range: 10Hz to 50KHz
Input Level: 0.9V to 1.1V RMS (With Modulation ALC)
Input Impedance: 100KΩ (Approx.)

Memory:
Locations 0 to 19 store Frequency, Modulation and Output level data; Locations 20 to 99 store Frequency data only;
3 independent memories for storing output level data.

Display:
Carrier Frequency: 9-digit LED
Modulation: 3-digit LED
Output Level: 4 -digit LED
Memory Location: 2-digit LED

General Specifications
Input Power: 110/220V
Frequency: 50/60
Size: 4.7" (H) x 17" (W) x 17.7" (D)
Weight: 26.5 lbs
Standard Accessories:
Operation manual, Line cord and Type N cable
Optional Accessories:
GBIB interface

Protek Test & Measurement
45 Smith Street, Englewood, NJ 07631 Tel: 201-818-7711 Fax: 201-760-9888
Website: www.protektest.com Email: sales@protektest.com



1. Power On/off.

2. Increases ▲ or decreases ▼ the % mod or Mod Frequency by a preset value. In the second function selects 3.5KHz or 22.5 KHz FM deviation.

3. Displays % Modulation in AM and Frequency Deviation in FM.

4. Selects 400Hz or 1KHz modulation frequencies. In the 2nd function selects 75KHz deviation or 30% AM modulation.

5. Increments or decrements the memory address.

6. Displays the Memory Address.

7. Displays the RF Output Frequency.

8. Function cursor keys
The outer 2 keys selected the display to be changed; the inner 2 keys select the digit in the selected display to be changed.

9. The Delta Frequency is used to generate a new output frequency by adding or subtracting the delta value to the current frequency.

10. +/- keys determine if the Delta frequency is added or subtracted to the current frequency.

11. Turns the output on or off. In the second function selects the dB units.

12. Displays the RF Output Level.

13. These keys are used to store preset RF output levels in memory and recall them when needed.

14. When pressed, an External Reference frequency will be used.

15. Modulation On or Off key.

16. The Input connector for the external modulation signal when External Modulation is selected. The Modulation output signal is present at this connector when internal modulation is selected.

17. When this key is press, the input-modulating signal is kept at a constant level. (0.9V to 1.1V)

18. 2nd Function Key, Some keys on the front are dual function, pressing this key enables the second function.

19. Selects if data is being stored in or recalled from the displayed memory.

20. Keypad
Enter values for the RF Frequency, output level, Modulation or memory display when selected.

21. Rotary knob
Used also for entering Frequency, output level, Modulation or memory values in the selected display.

22. Frequency step keys
Increases ▲ or decreases ▼ the frequency by a Preset value.

23. These keys increase ▲ or decrease ▼ the output level by a Preset value.

24. 'N' type RF 50Ω output connector.

PANELS

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