

# MODEL 8850-2 HIGH POWER SWEEP GENERATOR

for conducted audio frequency susceptibility testing



## APPLICATION

The **Model 8850-2 Power Sweep Generator** was developed in response to the demand for increased audio voltage from a low impedance source when performing CS101 conducted susceptibility test per MIL-STD-461D and E. This high power unit is especially suited for rapidly making tests in the shielded room.

When used with the **Type 6220-1A (or 6220-2) Audio Isolation Transformer**, the combination enables the injection of sinewave audio voltages into active power lines supplying power to an Equipment Under Test (EUT).

## DESCRIPTION

The **Model 8850-2 Power Sweep Generator** provides audio power in a manually tuned or sweeping mode for four frequency bands covering 20 Hz to 150 KHz. Sweep rate is 4½ minutes per band, or 18 minutes for all bands in sequence. In the manual mode, a tuning knob controls the output frequency.

Both the frequency in KHz and the output level in volts r.m.s. are continuously displayed on two

digital meters.

When used in conjunction with the **Type 7021-1 Phase Shift Network** and the **Type 6220-1A Transformer**, provision is made for sensing the audio voltage being injected into the EUT and displaying it on the digital panel meter. In this arrangement, the unit maintains a constant injection level (up to a maximum of 7.5 volts r.m.s.) as frequency is scanned or swept.

Maximum power output of the unit into a 1.5 ohm resistive load is over 300 watts and 200 watts into 2.5 ohms. The output voltage into a 0.5 ohm load connected to the secondary of the associated **Type 6220-1A Transformer** can be adjusted to a level in excess of ten volts at 1.0 KHz.

## FEATURES

- Manual or automatic frequency sweep from 20 Hz to 150 KHz.
- Digital display of frequency and output voltage level or injection voltage level.
- Remote sensing of voltage being injected into the Equipment Under Test.
- Automatic leveling of output voltage as frequency is scanned or swept.
- Protective circuits prevent damage to output stages caused by power frequency feedback in typical a.c. test setups.

- Low output impedance for greater transfer of audio power.

- Up to 300 watts output into 1.5 ohm resistive load and 200 watts into 2.5 ohms.

## AVAILABLE ACCESSORIES

**Type 6220-1A Audio Isolation Transformer.** Use for injecting output of 8850-2 in series with power line to test sample as required by test method CS101.

**Type 7021-1 Phase Shift Network.** Use for removing the power frequency from the voltmeter in CS101 tests.

**Type 8810-1 Impedance Matching Transformer.** Plugs into output terminals to step up the output to 50 ohms Impedance. Use when a 50 ohm signal source is needed.

**Type 8811-1 Wide Range Transformer.** Plugs into output terminals to provide up to 115 volts r.m.s. at 200 watts. Use as a power source for frequencies from 30 Hz to over 2 KHz.

**Type 9138-1 Step-up Transformer.** Plugs into output terminals to provide up to 2 KV into 20,000 ohm load, 3 KHz to 30 KHz.



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# MODEL 8850-2 HIGH POWER SWEEP GENERATOR

## SPECIFICATIONS

**Frequency Range:** 20 Hz to 150 KHz in four bands, manually tunable or by automatic sweep and continuous display on digital panel meter.

**Output Power:** 300 watts into 1.5 ohms  
200 watts into 2.5 ohms.

**Output Voltage:** 22 volts r.m.s. maximum at 1 KHz.

**Output Current:** 15 amperes maximum at 1 KHz.

**Output Level:** Manually controlled by panel knob. Continuously displayed on digital panel meter.

**Sweep Duration:** 4½ minutes for one band or 18 minutes for all four bands selected by push-buttons.

**Remote Sense:** Automatically maintains output voltage at the level set by the operator, up to 7.5 volts r.m.s., as frequency is scanned or swept.

**Frequency Stability:** <2250 ppm/C.

**Output Level Drift:** Less than 0.5%.

**Overload Protection:** Automatic shut down for excess temperature, over-voltage, or over-current conditions in output circuit.

**Power Requirements:** 115 volts 60 Hz, 6 amperes (230 volts 50 Hz, 3 amperes available.)

**Size:** 8.75" high, 17.25" wide, 13" deep. (22.22 cm x 43.82 cm x 33.02 cm.)

