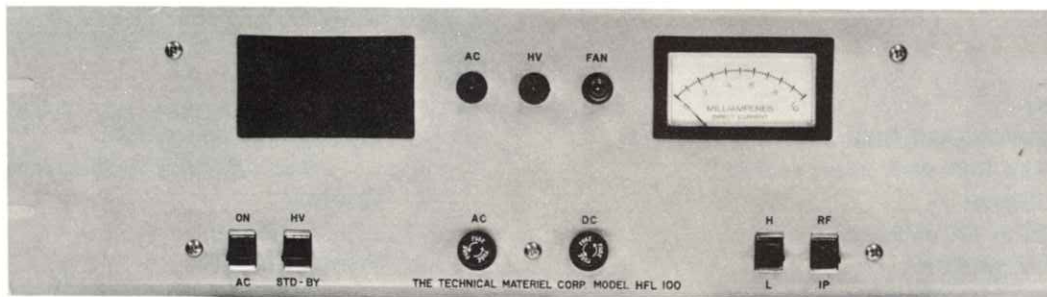


HIGH FREQUENCY LINEAR AMPLIFIER, 100 WATTS PEP

HFL-100

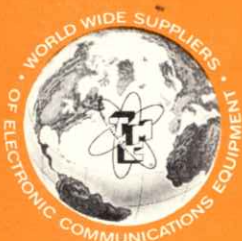


The Model HFL-100 is a high quality linear amplifier, designed to operate in the 1.6 to 26 MHz range, and broadbanded (no tuning controls) in two ranges. It provides approximately 50 watts average and 100 watts PEP output when driven by any exciter capable of 50 to 100 milliwatts RF drive. Although the nominal range is 1.6 to 26 MHz, the amplifier is useable from 400 KHz to 30 MHz at reduced efficiency. On special order, it can provide 200 watts PEP output when optimized over a narrower range.

The HFL-100 is completely solid state up to the final tube which is the newly designed 8875. The amplifier is cooled by an axial fan and protected from excessive heat dissipation by a thermal sensor. The entire amplifier, including its power supply, mounts on a 5¼ X 19-inch panel and extends only 10½ inches back of the panel.

The HFL-100 amplifier has a large power gain and, when used with a suitable exciter, is a complete low power transmitter. However, when used in this manner, it should be followed by an antenna tuner such as the ATU-350 (Bulletin 2054-1) or a filter panel such as the TFP-1K or LPF-1K to reduce harmonics to an acceptable level. The HFL-100 is used as the intermediate drive unit for the GPT-1K transmitter systems (Bulletin 1009) and is designed for unattended operation.

Revised 1 August 1971



THE TECHNICAL MATERIEL CORPORATION

AND SUBSIDIARIES

TECHNICAL SPECIFICATIONS

FREQUENCY INFORMATION

Range

1.6 to 26 MHz
400 KHz to 30 MHz on special order

OPERATING PARAMETERS

Modes

CW/AM/AME/USB/LSB/ISB
FSK/FAX with proper exciter

Input Signal

50 to 100 milliwatts

Input Impedance

50 ohms nominal unbalanced

† Power Output

100 watts PEP; 50 watts average

Output Impedance

50 ohms nominal single ended

VSWR Rating

Will match into 2:1 VSWR

Tuning

Broadbanded in two ranges.
Automatic selection of range optl.

Metering

Indications of relative power
output and plate current.

Safety Features

Plate overload and heat sensors
to protect final tube

Front Panel Controls

AC ON/OFF
HV ON/STANDBY
HIGH/LOW RANGE
MULTIMETER SWITCH
INDICATOR LAMPS

DISTORTION

Intermodulation

Distortion products are min. 30db below
either tone of a standard two tone test
at full rated PEP output.

ENVIRONMENTAL AND INSTALLATION

Operating Conditions

0 to +50°C; Up to 95% relative humidity

Cooling

Forced air

Primary Power

115/230 VAC, 50/60 Hz, single phase

Size and Weight

19" rack mount: 5¼" high X 10½" deep
Approximately 20 lbs.

Added Features

RF mating connectors
Power cable
Two copies of Instruction Manual

OPTIONAL ACCESSORIES

Model ATU-350 Antenna Tuning Unit
Model TFP-1K Harmonic Filter Panel
Model LPF-1K Low Pass RF Filter

† Note: Output power of 200 watts peak and 100
watts average is possible by limiting
operating frequency range and opti-
mizing output circuit. Available on
request.



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We reserve the right to
make engineering changes.