

Linear Power Amplifier TMC model LPA-1K



TMC
Technical
Bulletin

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1. 8163 TUBES



- *Automatic Tuning to any one of Eight Predetermined Channels (Optional)
- *Automatic Slaving to Suitable Exciters (Optional)
- *Power Output 1 KW P.E.P. for SSB and ISB.

- *Frequency Coverage 1.6 to 18 MHz
- *Simple and Reliable
- *Highly Efficient

Linear Power Amplifier TMC Model LPA-1K

TMC(Canada) Limited's Model LPA-1K is a final or intermediate linear amplifier providing 1,000 watts PEP output over the frequency range of 1.6 to 18 MHz from a 50 watt average power input.

Combined with a suitable exciter, the LPA-1K serves as a compact 1 KW PEP transmitter, for SSB and ISB, and at reduced power for CW, FSK, and FAX.

The amplifier, LPA-1K, may be tuned manually or programmed for eight predetermined channels when supplied with optional automation.

A safety interlock system is included to protect personnel from shock hazards. The final power amplifier tubes are air cooled by a forced air cooling system.

This product is ideal for ship-to-shore services, extended telephone applications, pipeline services, and contingency transportable requirements.

Frequency range:

1.6 to 18 KHz.

Modes of operation:

(with appropriate exciter)
AM, AME, SSB, ISB, FSK, FAX, CW and MCW.

Output impedance:

50 ohms nominal. Output will accommodate a load with up to a 2:1 VSWR.

Input signal:

50 ohms nominal.

Tuning:

All tuning and bandswitching accomplished from the front panel (no plug-in components)

Signal distortion ratio:

35 DB below either tone of a standard two-tone test at 1 KW PEP.

Harmonic suppression:

Spurious and harmonic suppression is at least 40 db down from full PEP output.

ALDC

An Automatic Load and Drive Control circuit is incorporated to generate a DC voltage for external control of an associated exciter.

Metering:

Total plate current.
RF output indication.

Environmental conditions:

Designed to operate in any ambient temperature between -30° and +50°C, and any value of humidity up to 90%.

Cooling:

Forced air cooling.

Safety features:

Full interlock protection. Full overload and fuse protection.

Installation data:

Weight: 70 lbs.

Size: 8 3/4 x 19 inches

Primary power requirements:

115/230 volts, single phase, 50/60 cycle AC, approximately 1,300 watts under full power output, 220 watts on standby.

Components & Construction:

All equipment manufactured to highest commercial standards.

Loose items:

Mating RF connectors and one instruction manual.

Options/accessories:

- Equipment Cabinet - A full range of cabinet heights are available to house the LPA-1K itself, or with optional exciter unit.
- Automated channel selection with servo tuning for 8 predetermined channels. Permits slaving to associated exciter/transceiver.
- Interface package for Marconi CH 25 Transceiver (also others on special order).

Dept. of Communications:

Type approval #20622137 per RSS-122 and #206231015 per RSS-123 intermittent duty cycle.

TMC (Canada) Limited

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