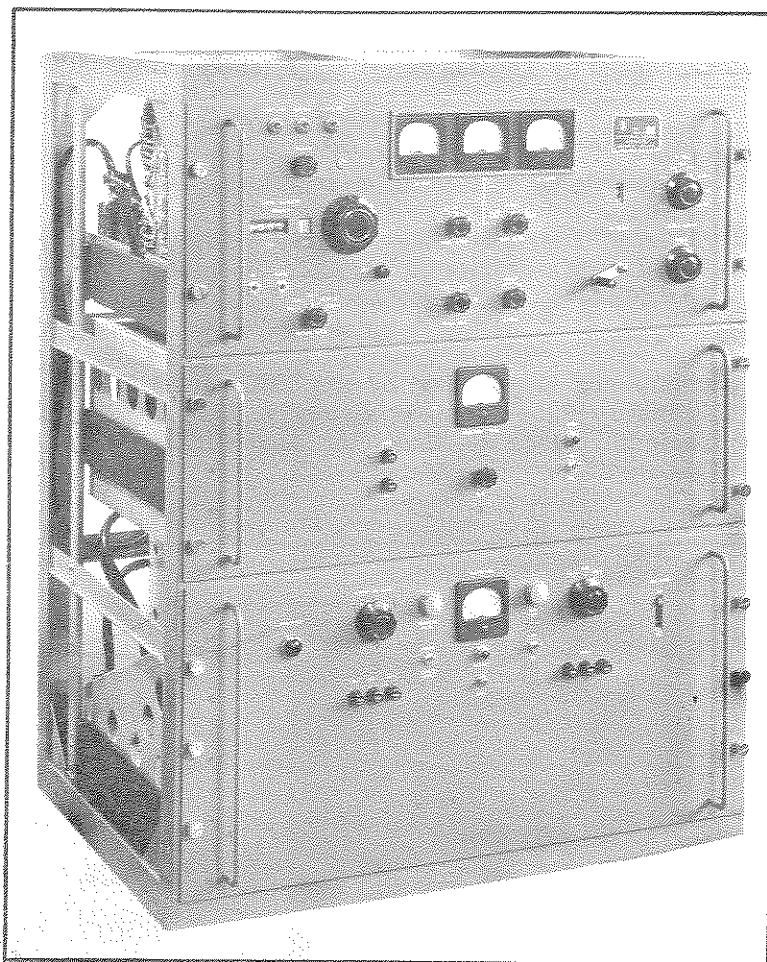
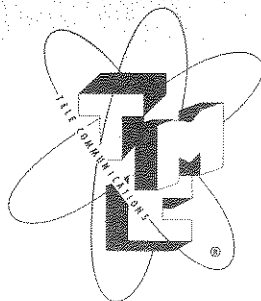


## SALES SERVICE BULLETIN NUMBER 174A

Radio Transmitter, Model GPT-750



TMC Radio Transmitter, Model GPT-750

The TMC Radio Transmitter, Model GPT-750 was designed for radio telephone, telegraph, frequency shift and facsimile operation on all frequencies within the range of 2 to 32 Mcs. The equipment is a high power replacement for the Model BC-610 Transmitter and is provided with identical mounting facilities. Every effort has been made in the design and manufacture of this transmitter to suppress spurious VHF emissions.

This transmitter is rated at 750 watts CW or FS, and 500 watts radio telephone throughout its usable range. The equipment is constructed on a building block basis. Combinations are available which provide for all of the commonly used services. The Model GPT-750 may be used to match any antenna load from 50 to 1200 ohms by use of the TMC Antenna Tuning Unit, Model TAC.

A desk mounted remote-control amplifier is available as an accessory which contains a speech clipping amplifier and provides for low level microphone input, keying input and remote control of plate power supply. This equipment has been designated Model RTC, Remote Control Amplifier.

## MULTICHANNEL OPERATION

The GPT-750 is adaptable for multichannel operation by the stacking of Models RTF Master Oscillator-Amplifiers and in this manner additional pre-set frequencies are immediately available.

## SINGLE SIDEBAND OPERATION

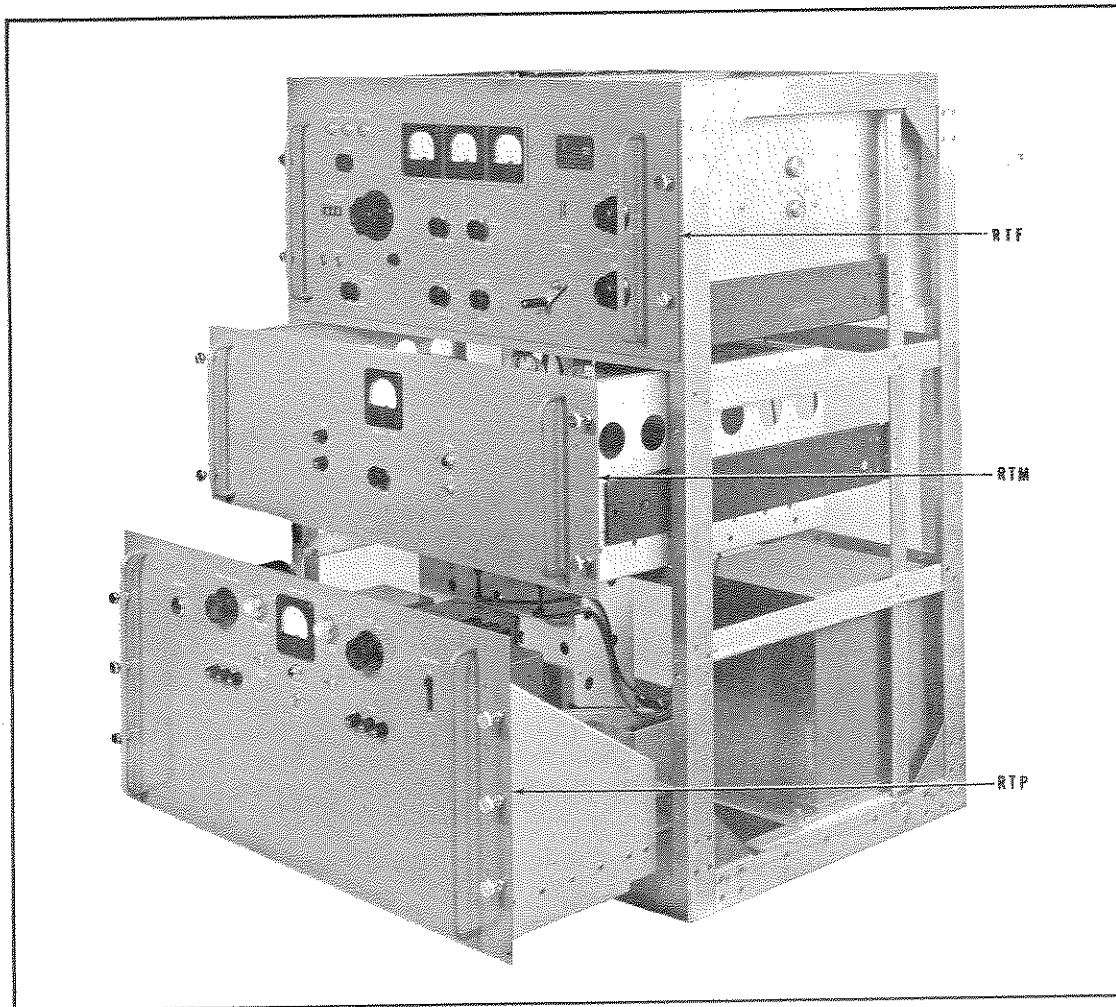
The GPT-750 is adaptable for single sideband operation in conjunction with an SSB Exciter soon to be announced by The Technical Materiel Corporation.

## ORDERING INFORMATION

The Model GPT-750 consists of a number of individual component equipments as follows:

Model RTF	Master Oscillator - RF Amplifier
Model RTM	Radio Transmitter Modulator
Model RTP	Radio Transmitter Power Supply

Frequency Shift transmission is provided by the TMC Model XFK, Frequency Shift Exciter. The XFK fits into a Panel-Chassis assembly, Part A-959, which is mounted in the transmitter frame to replace the Modulator, Model RTM.



Standard combinations are as follows:

- Model GPT-750(A).....The basic transmitter for CW operation with built-in VFO, less modulator.  
Model GPT-750(B).....Same as above, with Model RTM modulator.  
Model GPT-750(C).....Same as combination A, with Model XFK, Frequency Shift Exciter and Part A-959 Panel-Chassis Assembly.

### TECHNICAL SPECIFICATIONS

- FREQUENCY RANGE:** 2 to 32 Mcs, band switched.
- POWER OUTPUT:** CCS - 750 Watts CW or FS, 500 Watts Radio Telephone  
ICAS - 1000 Watts CW or FS, 700 Watts Radio Telephone
- FREQUENCY CONTROL:** Built in high stability master oscillator as used in TMC Models VOX and PMO, plus three crystal positions (HC-6U holders) selectable by front panel switch.
- MASTER OSCILLATOR CHARACTERISTICS:**
- FREQUENCY RANGE:** 2 to 4 Mcs continuously variable.
- OSCILLATOR CALIBRATION:** Direct reading in cps.
- READABILITY AND RESETABILITY:** 20 cps per megacycle to a previously calibrated frequency.
- FREQUENCY CALIBRATION:** Oven controled 100 kcs Oscillator provides crystal check points.  
100 Kcs oscillator may be calibrated against a primary standard.
- ZERO BEAT INDICATION:** 50 Kcs check points on Neon Light Null Indicator.  
Additional check points provide more accurate calibration aurally by means of headphones.
- STABILITY:** Better than 20 cps per Mc for a 30 degree change in ambient.
- LINE VOLTAGE EFFECT:** Not more than 10 cps for a  $\pm 10\%$  variation.
- CRYSTAL OSCILLATOR CHARACTERISTIC:**
- FREQUENCY RANGE:** 2 to 4 Mcs
- MODULATION CHARACTERISTICS:** Capable of 100% sine wave plate modulation with less than 10% distortion.
- NOISE LEVEL:** Better than 40 db down.
- FREQUENCY RESPONSE:** Uniform within  $\pm 1.5$  db from 100 to 5000 cps.

OUTPUT IMPEDANCE: 30 to greater than 150 ohms unbalanced.

AUDIO INPUT: 1. 600 ohm balanced or Carbon mike.  
2. Low level Microphone when used with Model RTC.

TUNING: All tuning and band switching from front panel.  
(No plug-in frequency components).

TUBE COMPLEMENT:

	RTF Chassis	RTP Supply	RTM Modulator
	2 each 4-250A	2 each 872A	2 each 810
	1 each 6146	1 each 5R4GY	2 each 6L6
	1 each 6BF5	1 each 5V4	1 each 12AT7
	2 each 6AH6	1 each 6X4	2 each OA3
	1 each 12AT7	1 each OA2	1 each 5R4GY
	2 each OA2		
	2 each 12AU7		
	2 each 6C4		
	1 each 6BE6		
	1 each 4HTF4		

COOLING: Forced filtered air.

OVERLOAD & BIAS PROTECTION: Automatic protection.

TEMPERATURE HUMIDITY: Designed to operate in any ambient temperature between the limit of 0 degrees and +50°C for any value of relative humidity up to 75%.

AVERAGE PLATE EFFICIENCY: 60 to 75%.

PRIMARY POWER: 115 volts 50/60 cy. AC, approx. 2100 watts.

ACCESSIBILITY: Tube changes and repairs accomplished from the front of the equipment.

RUGGEDNESS: Transmitter is designed for mobile application.

SIZE: Height 46", Width 34", Depth 27".

WEIGHT: 650 lbs.

COMPONENT & CONSTRUCTION: Equipment manufactured in accordance with JAN specifications wherever practicable.

We reserve the right to make changes in the design of our equipment consistent with good engineering practice in order to make improvements in design and to effect economies in manufacture.

LO355/6M

# THE TECHNICAL MATERIEL CORPORATION

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