

GENERAL PURPOSE SIDEBAND TRANSMITTER, 750 WATTS PEP

# GPT-750F2



The GPT-750F2 Sideband Transmitter is a valuable addition to any transmitting station handling both sideband (SSB) and AM traffic. The transmitter not only provides for this condition, but can operate in the ISB (A3B), CW (F1), FSK (A7J) and FAX (A7J) modes as well. Ten ovenized crystals, pre-set to individual channels, or a built-in master oscillator determine the operating frequencies at better than one part in  $10^6$  stability. A variety of audio filters, either 3 KHz or 6 KHz wide, are available for each sideband.

The TMC Model SBE-8 exciter provides an adjustable RF drive for the linear and is mounted in the center deck. The automatic load and drive control acts to minimize the distortion products and to limit the drive during high modulation peaks or load changes. A voice-operated relay can be provided for keying the transmitter. All power supply components, including power and overload breakers, are located in the bottom deck. Each deck is mounted on track slides and equipped with interlock devices for protecting personnel when the decks are open. The transmitter can be mounted on shocks or on a 3-inch raised base. Installation can be completed in a matter of minutes.

Revised 1 August 1971



THE TECHNICAL MATERIEL CORPORATION

AND SUBSIDIARIES

## TECHNICAL SPECIFICATIONS

### FREQUENCY INFORMATION

- Range**  
2 to 30 MHz
- Stability**  
One part in  $10^6$  per day for  $15^{\circ}\text{C}$   
change in ambient, 0 to  $+50^{\circ}\text{C}$
- Control**  
Ten temperature-controlled crystals  
External VFO input

### OPERATING PARAMETERS

- Modes**  
CW(A1); MCW(A2H); AM(A3)  
USB(A3A,A3J), LSB; ISB(A3B)
- Power Output**  
1000 Watts Average CW  
750 Watts AM  
750 Watts SSB/ISB
- Output Impedance**  
50 ohms nominal, unbalanced
- Carrier Suppression**  
Adjustable -55db to full output
- Tuning**  
All tuning and bandswitching from  
the front panel. Manual control.
- Metering**  
Front panel meters for monitoring  
output readings and critical circuits.
- Master Oscillator By-Pass**  
Bypass switch permits continued oper-  
ation of the master oscillator oven  
elements when the balance of the  
transmitter is in power OFF status.
- Safety Features**  
Overload relays protect against abnor-  
mal operating levels of the final and  
safety interlocks protect personnel.

### DISTORTION AND NOISE

- Signal/Distortion**  
At 750 watts PEP  
40db below full PEP output  
At 500 watts PEP  
45db below full PEP output
- Harmonic Suppression**  
Second Harmonics  
Min. 40db below full PEP output  
Third and Higher Harmonics  
Min. 50db below full PEP output  
RF filters are available on request
- Spurious**  
Min. 50db down from full PEP output
- Hum and Noise**  
Min. 55db down from full PEP output
- Unwanted Sideband Rejection**  
500 Hz tone is down at least 60db  
below full PEP output.

### AUDIO

- Sideband Response**  
250-3040 Hz (CCIR)  
OPTIONAL: 250-6080 Hz (CCIR)  
Other bandwidths available on request
- Input**  
Two independent 600-ohm channels  
-20 to 0dbm, balanced or unbalanced  
Hi-Z or dynamic microphone
- Voice Operated Relay**  
VOX provided with anti-trip feature,  
adjustable gain and squelch.

### KEYING INFORMATION

- Refer to Technical Bulletin 2025A for data  
on Model TIS-3D Audio Tone Keyer.

### ENVIRONMENTAL AND INSTALLATION

- Operating Conditions**  
0 to  $+50^{\circ}\text{C}$ ; up to 95% relative humidity
- Heat Dissipation**  
Approximately 2000 watts
- Cooling**  
High capacity, filtered forced air
- Primary Power**  
115/230 VAC, 50/60 Hz, single phase
- Size and Weight**  
56" high X 39" wide X 31" deep  
Approximately 1425 lbs.
- Loose Items**  
Mating RF connectors  
All interconnect cables  
Base-mounted equipment rack  
Two copies of Instruction Manual

### OPTIONAL ACCESSORIES

- Model ATS-2A Antenna Tuning System  
Manual tuning into a 35-foot vertical  
Technical Bulletin 2053-1
- Model LPF-1K Low Pass RF Filter  
Provides additional 25db RF suppression  
Technical Bulletin 2045-1
- Model TIS-3D Audio Tone Keyer  
Enables FSK/FAX (A7J) operation  
Sales Bulletin 2025A
- Model SPU-2 Speech Processing Unit  
Improves transmitted voice quality  
Sales Bulletin 2026B
- Model SWR-1K Indicator  
Provides forward/reflected power metering  
Technical Bulletin 6030-1

We reserve the right to  
make engineering changes



## THE TECHNICAL MATERIEL CORPORATION

700 FENIMORE ROAD • MAMARONECK, NEW YORK 10543

SPRINGFIELD, VIRGINIA • OTTAWA, CANADA • LUZERN, SWITZERLAND • TEMPE, ARIZONA

(914) 698-4800 • (613) 822-0244 • twx 710-566-1100 • telex 013-446