

# Sideband Strip Exciter Model STE-5U/L, STE-5U, STE-5L



TMC  
Technical  
Bulletin

102032A



- SSB, AME, CW, MCW
- 100 Milliwatt Output
- Completely Solid State
- Only 14 Watts Power Required
- Push-to-Talk
- VOX, Anti-VOX
- High Stability
- Plug-in RF Heads

DOT Type Approval # 206221019

The Model STE-5 solid state exciter is completely transistorized and contains its own power supply using only 14 watts of input power for full output. Low heat dissipation and minute rack-space requirement permits a great many units to be placed in a single rack. 100 milliwatts of drive is provided to the following amplifier in SSB, CW, AM equivalent or MCW modes.

In order to expeditiously meet your needs, please specify the desired carrier frequency of operation and the power source, when ordering.

## Technical Specifications

### Frequency Range:

2.0 to 32 MHz in five crystal-controlled plug-in RF Modules. Modules provide coverage of 2-4, 4-8, 8-16, 16-24 and 24-32 MHz.

*When ordering please specify carrier frequency desired.*

### Modes of Operation:

Standard: USB, AM Equivalent, CW, MCW. Front panel selectable SSB (upper or lower) optional. ISB on special order.

### Power Output:

100 milliwatts PEP.

### Frequency Control & Stability

Oven crystal controlled, for standard maximum deviation of  $\pm 50$  cps ambient range of  $0^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ .

### Output Impedance:

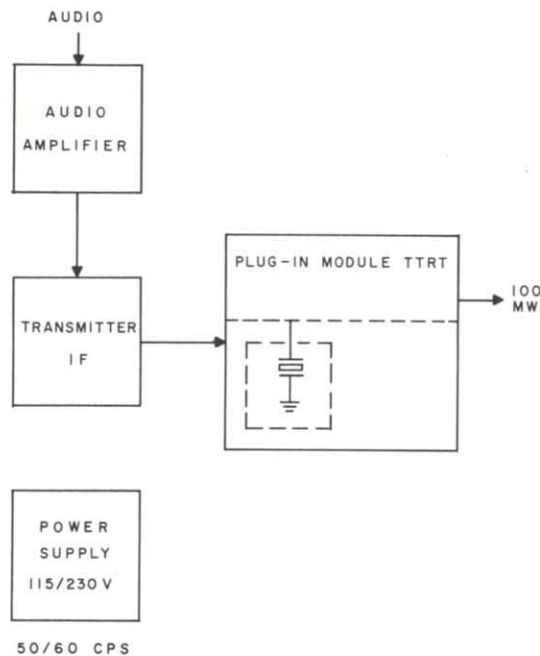
Nominal 50 ohms unbalanced.

### Signal/Distortion Ratio:

At least 40 db below full PEP output.

### Unwanted Sideband Rejection:

At least 50 db below full PEP output.



Model STE-5 Functional Block Diagram

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**Environmental Conditions:**

Designed to operate in an ambient temperature range of 0° C to +50° C and any value of humidity up to 90%.

**Storage Conditions:**

Equipment is not materially affected under storage at -40°C to +85°C, and humidity of up to 95%

**Safety Features:**

Power supply voltages fused.

**Installation Data (in inches):**

1 3/4 High x 19 Wide x 15 Deep. Weight 10 pounds.

**Primary Power:**

115 or 230, ±10%, 50/60 cps, single phase, 14 watts (including ovens).

**Spurious & Harmonic Suppression:**

50 db below full PEP output, into a tuned linear amplifier.

**Noise Level:**

Better than 40 db below full PEP.

**Carrier Insertion:**

Automatically preset at -50, -20 and -6 db by mode selector switch.

**Audio Response/Bandwidth:**

± 2 db, 300 to 3000 cps.

**Audio Input:**

600 ohms, -20 dbm, balanced, telephone handset carbon microphone, hi- and lo- impedance microphone. (Front panel plug or rear panel connections).

**Overload Limit:**

Special built-in circuit prevents exciter overloading. ALDC input from following linear amplifier.

**Voice Operated Relay:**

Voice operated relay with adjustable VOX and anti-VOX control available on front panel.

**Loose Items:**

Instruction manuals, module extender and mating connectors provided.

**Components & Construction:**

All equipment manufactured in accordance with JAN/MIL specifications wherever practicable.

**Options/Accessories:**

Priced separately:

*MODULE STORAGE DRAWER: The Model THRA-1, RF Module Storage Panel, provides space for 3 RF modules with oven voltages for maintaining oscillators at operating temperature. Size (in inches): 1 3/4 High x 10 Wide x 15 Deep.*

*MK-102-4 High Impedance, and MK-102-3 Low Impedance, dynamic microphones, noise cancelling, desk-type, with push-to-talk switch.*

*HS-100-3C and HS-100-3D handsets, push-to-talk, carbon and dynamic respectively.*

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