

Multi-Channel SSB Exciter Model SME-5



TMC
Technical
Bulletin

102033B



SME-5

Features

CW.AME.MCW.FSK.ISB.LSB.USB.FAX
2.0 MHz to 30 MHz

The SME-5 is a fully transistorized, eight channel ISB Exciter with a frequency range of 2.0 to 30 MHz, delivering up to 100 milliwatts PEP output power for the designated modes. SSB operation may be either upper and/or lower sideband (USB and/or LSB)

The model SME-5 is designed to accept a variety of audio inputs from two 600 ohm lines, a carbon microphone, a high impedance microphone, a low impedance microphone and a telegraph key. Two independent audio inputs may be provided for simultaneous transmission.

Full front Panel control facilities are available for channel selection; upper and lower sideband function; PTT and mode selection. A meter is also provided with a selector switch for measuring levels. VOX operation is available as an option.

The SME-5 eight-channel exciter may also be automated for remote selection of frequency, mode and sideband function.

Technical Specification

Frequency Information

Range: 2.0 to 30 MHz
Presentation: channel selector switch 1-8
Stability: Temperature controlled crystal oscillators for Max Deviations of $\pm 10\text{Hz}$ from 0°C to 50°C .

Power Distortion & Noise

Power Output: 0 to 100 mw PEP
Output Impedance: 50 ohms nominal unbalanced.
Intermodulation Distortion: At least 40 db below either tone of a two tone test at 100 mw PEP output.
Spurious Signals: Better than 50 db down at full PEP output.
Harmonic Suppressor: 2nd order at least 45 db below full PEP.
All others at least 55 db down.
Hum & Noise: Better than 50 db down at full PEP.

Operational

Modes: AME, CW, MCW, ISB, LSB, USB, FSK (option), FAX (with external F.S. Generator) option
Tuning: 8 preset crystal controlled channels, covering any frequency in the range 2.0 to 30 MHz.
Metering: Built-in multi-meter permits monitoring of USB and LSB Audio input levels.
ALDC: Automatic Load & Drive Control accepts 0 to -11 volts d.c. from ALDC circuit of associated linear to improve linearity, limit distortion & deliver a relatively constant R.F. output level during high modulation peaks.
Carrier Insertion: All modes, level of carrier is continuously variable from 0 to -50 db.

Audio

Response, sideband filters
Customer Selected:
300 Hz to 3000 Hz
Others to Special Order

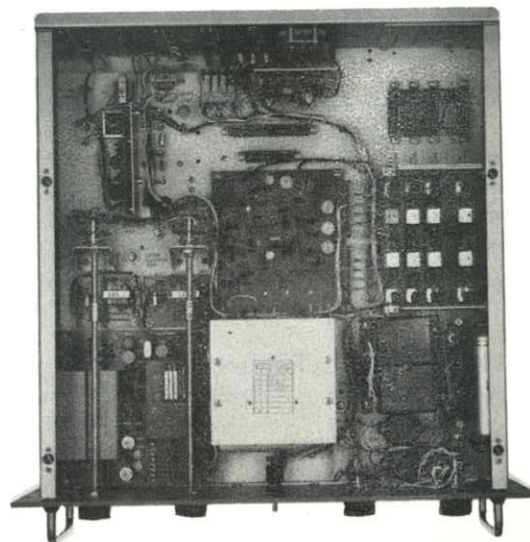
Input Line: Dual inputs - 20 to 10 dbm at 600 ohms balanced or unbalanced.
Microphone Input Control: -55 dbm into 47 k ohms. Front panel jack Microphone selection via USB or LSB switch control
Voice Operated Relay (VOX) Voice controlled switch with adjustable threshold (optional)

Keying Information

CW Rear panel dry contact (up to 200 bauds)
FSK 20/60 ma, 50 and 100 volts, or dry contact
FSK Shift Any shift up to 2700 Hz with plug-in crystals for Mark and Space tone frequencies.
FSK Keying Speed 200 Bauds.

Installation & Environmental Data

Environmental: 0° to 50°C up to 90% humidity
Storage: -40°C to 85°C , 95% humidity
Size: 5-1/4 inches (13.3 cm) high x 19 inches (98.25 cm) wide x 18 inches (45.57 cm) deep.
Weight: 30 lbs. (14 Kg)
Primary Power 115/230 volts, 50/60 Hz
Components & Construction All equipment manufactured in accordance with JAN/MIL specifications, wherever practicable.



Specifications subject to change without notice.

TMC (Canada) Limited

RR NO 5, Ottawa, Ontario K1G 3N3 Telephone (613) 521-2050
CABLE: TEPEI - OTTAWA TELEX: 053-4146

SUBSIDIARY OF THE TECHNICAL MATERIEL CORPORATION

Mamaroneck, New York

Printed in Canada - Mar. 73.

