

Multi-Channel SSB Exciter Model SME-5



TMC
Technical
Bulletin

102033



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 millivolts 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' also as an option extra.

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 ± 10 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 60 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 60 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:
 ± 1.5 db
300 Hz to 7.5 KHz
350 Hz to 3000 Hz or
250 Hz to 3040 Hz or
250 Hz to 6080 Hz

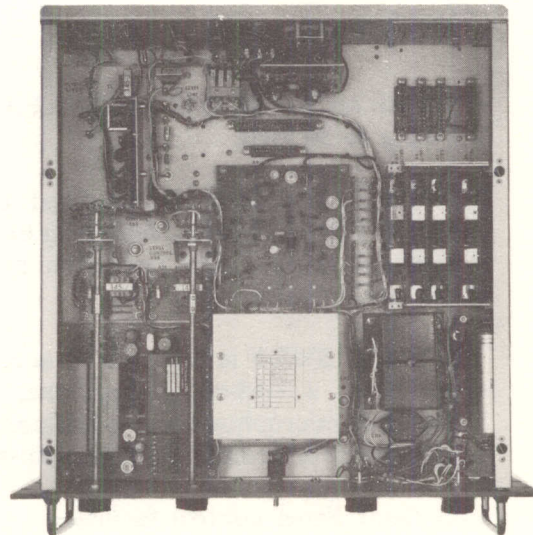
Input Line: Dual inputs - 20 to 10 dbm at 600 ohms balanced or unbalanced.
Microphone Input Control: -55 dbm into 47 k ohms. Front panel jack Microphone selection via USB or LSB switch control
Voice Operated Relay (VOX): Voice controlled switch with adjustable threshold (optional)

Keying Information

CW: Rear panel dry contact (up to 200 bauds)
FSK: 20/60 mu, 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 x 1000.
FSK Keying Speed: 1000 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.



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