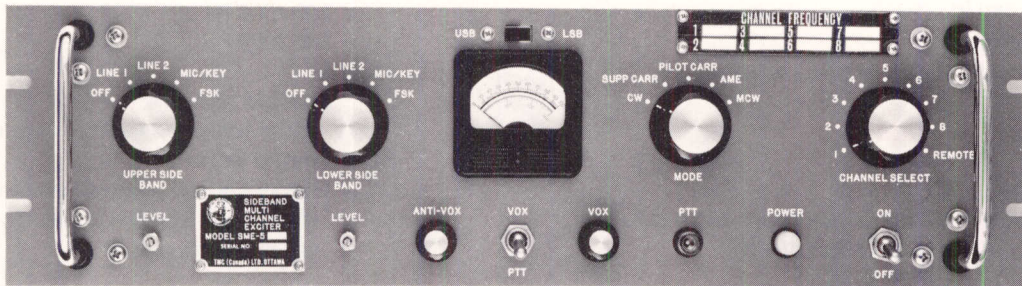


MULTI-CHANNEL SIDEBAND EXCITER

SME-5



The SME-5 is a fully transistorized, eight channel ISB exciter with a frequency range of 2 to 30 MHz. It provides up to 100 milliwatts PEP output as drive power for an associated linear amplifier. Capable of operating in all modes normally encountered in this range, it is particularly useful as a single sideband device for voice, teletype, facsimile or other type of communication.

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 in each of two sidebands. Voice operated relay (VOX) operation is available on special order.

Full front panel control facilities are available for channel selection; upper and lower sideband operation; PTT operation; and operating mode selection. A meter is also provided with a selector switch for measuring the operating levels of critical circuits. The exciter may be automated for remote selection of channel, mode and sideband operation. When used in this manner, information on band may be supplied an automated linear amplifier for complete automatic tuning of the entire transmitter through to the antenna.

Revised 1 August 1971



THE TECHNICAL MATERIEL CORPORATION

AND SUBSIDIARIES

TECHNICAL SPECIFICATIONS

FREQUENCY INFORMATION

- Range**
2 to 30 MHz
- Stability**
+/- 10 Hz max. deviation from 0 to
+50°C using temp-controlled oscillator
- Presentation**
Eight position channel select switch

OPERATING PARAMETERS

- Modes**
CW(A1)/MCW/AME/USB(A3A,A3J)
OPTIONAL: LSB; ISB(A3B)
FSK(A7J); FAX(A7J)
- Power Output**
0 to 100 milliwatts PEP
- Output Impedance**
50 ohms nominal unbalanced
- Tuning**
Eight pre-set crystal controlled channels
Remote selection is available on request
- Metering**
Built-in multimeter permits monitoring
of USB/LSB audio levels.
- ALDC**
Automatic Load and Drive Control
Accepts 0 to -11 VDC from an
associated linear to improve linear-
ity, limit distortion, and deliver a
relatively constant RF output.
- Carrier Suppression**
Level is continuously adjustable -50
to full carrier output, all modes.
- Voice Operated Relay**
OPTIONAL voice controlled switch
with adjustable threshold.

DISTORTION AND NOISE

- Intermodulation**
Min. 40db below either tone of a
standard two tone test; full PEP output
- Spurious**
Min. 60db below full PEP output
- Harmonic Suppression**
Second Harmonics
Min. 45db below full PEP output
Third and Higher Harmonics
Min. 55db below full PEP output
Filters available for additional rejection
- Hum and Noise**
Min. 60db down at full PEP output

AUDIO

- Sideband Response**
250-3040 Hz (CCIR), +/-1.5db
OPTIONAL:
250-6080 Hz (CCIR)
300-7500 Hz
350-3000 Hz
- Inputs**
Dual 600 ohm lines
-20 to 10dbm balanced or unbalanced
- Microphone Control**
-55dbm into 47K ohms; front panel jack
Microphone selection is made by USB
or LSB switch control

KEYING INFORMATION

- CW** Up to 200 baud
Rear panel, dry contact
- FSK Sources** 20/60 ma, 50 and 100 volts
Dry contact
- Shift** Up to 2700 Hz with plug-in
crystals for MARK and
SPACE tones X 1000.
- Speed** 1000 baud

INSTALLATION AND ENVIRONMENTAL

- Operating Conditions**
0 to +50°C; up to 90% relative humidity
Storage: -40 to +85°C. 95% R.H.
- Size and Weight**
5¼" high X 19" wide X 18" deep
Approximately 30 lbs.
13.3 cm high X 98.25 cm wide X 45.57 deep
Approximately 14 Kg.
- Primary Power**
115/230 VAC, 50/60 Hz, single phase
- Loose Items**
Mating RF connectors
Primary power cable connector
Service Extension Board
Two copies of Instruction Manual

We reserve the right to
make engineering changes.



THE TECHNICAL MATERIEL CORPORATION

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