

Low Frequency Adapter  
 TMC Model LFA-4



Model LFA-4

- 5 to 600 kcs frequency range
- Linear characteristics for SSB and ISB operating modes
- Push-pull output
- Highly stable internal oscillator
- Accepts synthesizer input for higher stability
- Controls easily accessible

The Technical Materiel Corporation's Model LFA-4, Low Frequency Adapter, is a highly stable radio frequency oscillator and linear wideband amplifier. Its primary function is to convert faithfully a high frequency input signal to a lower frequency output signal. When combined with a TMC Model SBG, Sideband Generator (see block diagram), the LFA-4 will provide CW, AM, AM equivalent, SSB and ISB signals in the frequency range of 5 to 600 kcs.

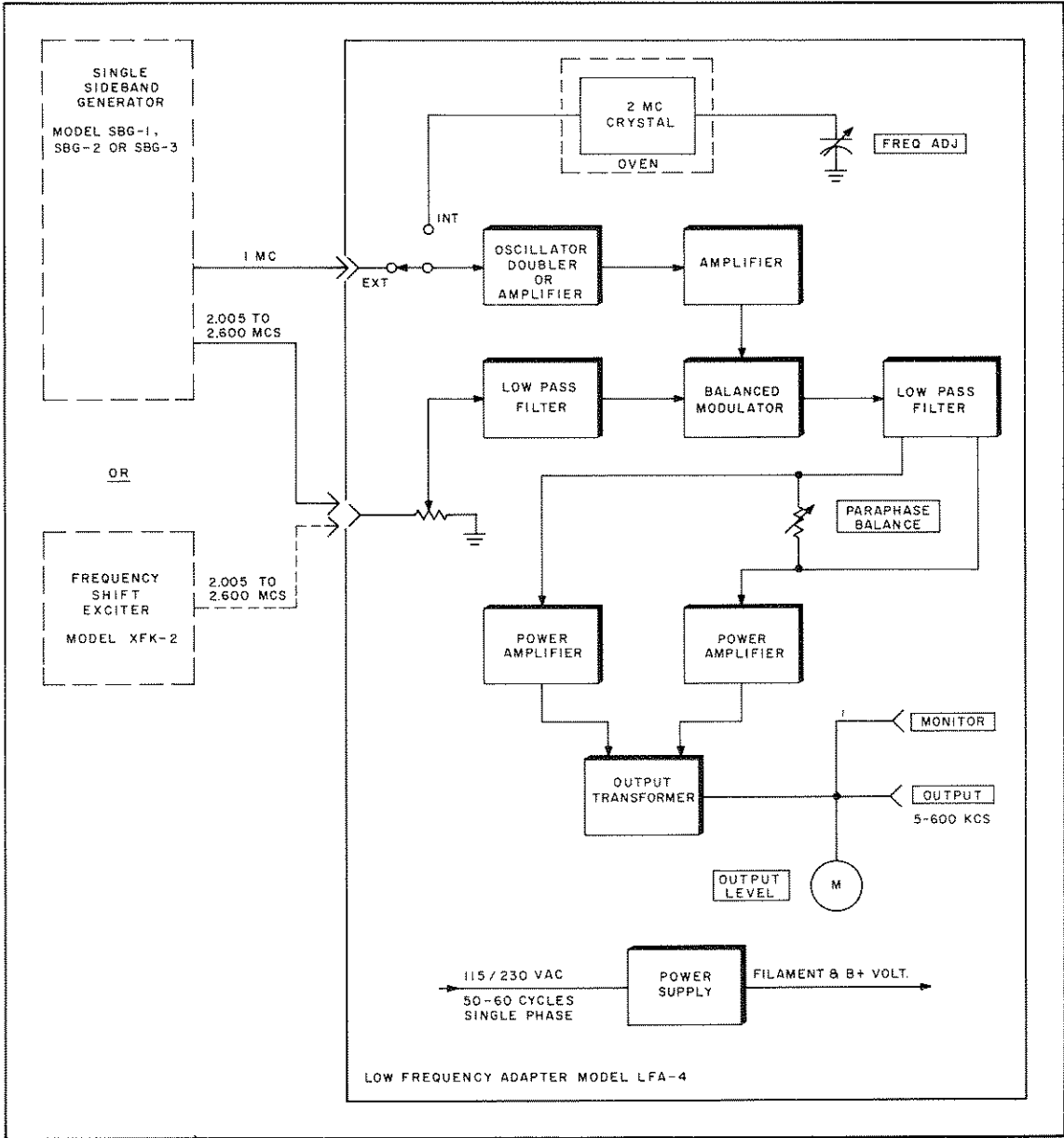
When combined with a frequency shift exciter, such as TMC Model XFK-2, suitable FSK signals are made available to drive transmitters in the 5 to 600 kc frequency range.

Model LFA-4 will not degrade the characteristics of the exciter with which it is used. The necessary controls and indicating devices are all easily accessible on the front panel. All interconnection points are located on the rear of the chassis.

## TECHNICAL SPECIFICATIONS, TMC MODEL LFA-4

FREQUENCY RANGE:	5 to 600 kcs.
MODES OF OPERATION:	SSB, ISB, AM, AM equivalent, CW, FSK and FAX (dependent upon exciter used).
FREQUENCY SHIFT:	Dependent upon associated exciter or transmitter.
INPUT FREQUENCY:	Signal from external exciter, 2.005 to 2.600 mcs Input limits: 100mw min., 1 watt average, max.
POWER OUTPUT:	From 0 to 5 watts PEP, continuously adjustable.
OUTPUT IMPEDANCE:	50 ohms coaxial, UG-625B/U (BNC)
INPUT IMPEDANCE:	50 ohms coaxial, UG-625B/U (BNC)
FREQUENCY STABILITY:	1. 1 part in $10^6$ per day for ambient temperature change of $15^{\circ}$ C within the range of $0^{\circ}$ to $50^{\circ}$ C (with self-contained oven crystal). 2. Will accept 1 mc frequency standard input, 10 to 100mw maximum, for higher stability.
SIGNAL/DISTORTION RATIO:	45 db down from two tone PEP output.
HARMONIC DISTORTION:	Less than 5%.
HARMONIC SUPPRESSION:	2nd harmonics are at least 50 db below full PEP output. All others at least 60 db below full PEP output.
AUDIO RESPONSE:	Dependent upon associated equipment used.
HUM LEVEL:	At least -55 db below full PEP output.
METERING:	Front panel meter monitors output RF voltage.
ENVIRONMENTAL CONDITIONS:	Designed to operate in any ambient temperature between $0^{\circ}$ C and $50^{\circ}$ C, and any value of humidity up to 95%.
INSTALLATION DATA:	Weight: Approximately 24 lbs. Size: 19" w $\times$ 5 $\frac{1}{4}$ " h $\times$ 12" d.
PRIMARY POWER:	115/230v AC, 50/60 cycles, single phase.
SHIPPING DATA:	1. Size of largest container: 25 $\frac{3}{8}$ " long $\times$ 16 $\frac{1}{8}$ " wide $\times$ 29" high 2. 129 lbs., 6.9 cu. ft.
INSTRUCTION BOOK:	TMC IN 2028
LOOSE ITEM:	Cable Assembly, Power — TMC #CA-555-1.
COMPONENTS AND CONSTRUCTION:	All equipment manufactured in accordance with JAN/MIL specifications wherever practicable.

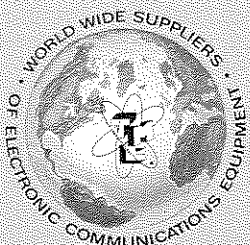
Low Frequency Adapter



FUNCTIONAL BLOCK DIAGRAM, MODEL LFA-4

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