

MMC 144/28 MMC 50/28 VHF CONVERTERS FOR 144 MHz AND 50 MHz

FEATURES

- LOW-NOISE DUAL GATE MOSFET RF AND MIXER STAGES.
- GOOD CROSS MODULATION PERFORMANCE.
- HIGHLY STABLE CRYSTAL OSCILLATOR AND BUFFER STAGES.

SPECIFICATION

Input frequency range	: 144-146 MHz (MMC144/28) 50-52 MHz (MMC50/28)
Output frequency range (I.F.)	: 28-30 MHz
Overall gain	: 30 dB
Overall noise figure	: 2.5 dB maximum
Image rejection	: 60 dB typical
Power requirements	: 10-14V DC at 40mA
Power connector	: 5 pin DIN socket
RF connectors	: SO239 (others to order)
Size	: 110x60x31 mm
Weight	: 230 gms

DESCRIPTION

These converters are intended for providing excellent reception of the 2 metre (144-146 MHz) and 6 metre (50-52 MHz) bands on a standard short-wave communications receiver. The incoming signal is converted from the VHF frequency to a frequency in the range 28-30 MHz, where it can be received using the original mode of transmission, be it FM, SSB, AM, or CW.

Incoming signals are amplified by a low-noise dual-gate MOSFET and fed via a bandpass filter to the dual-gate MOSFET mixer. The local oscillator signal is applied to gate 2 of this mixer to produce the required IF frequency.

The zener-diode-controlled crystal oscillator uses a high-stability quartz overtone crystal, which gives the converter its high degree of accuracy and stability.

Each converter is housed in a highly durable black diecast case, and all circuitry is constructed on high quality glass-fibre printed circuit board.

In addition to these units, we are able to manufacture converters in the range 30-500 MHz and specifications of such converters follow the pattern of the products listed in this catalogue.



MICROWAVE MODULES LIMITED

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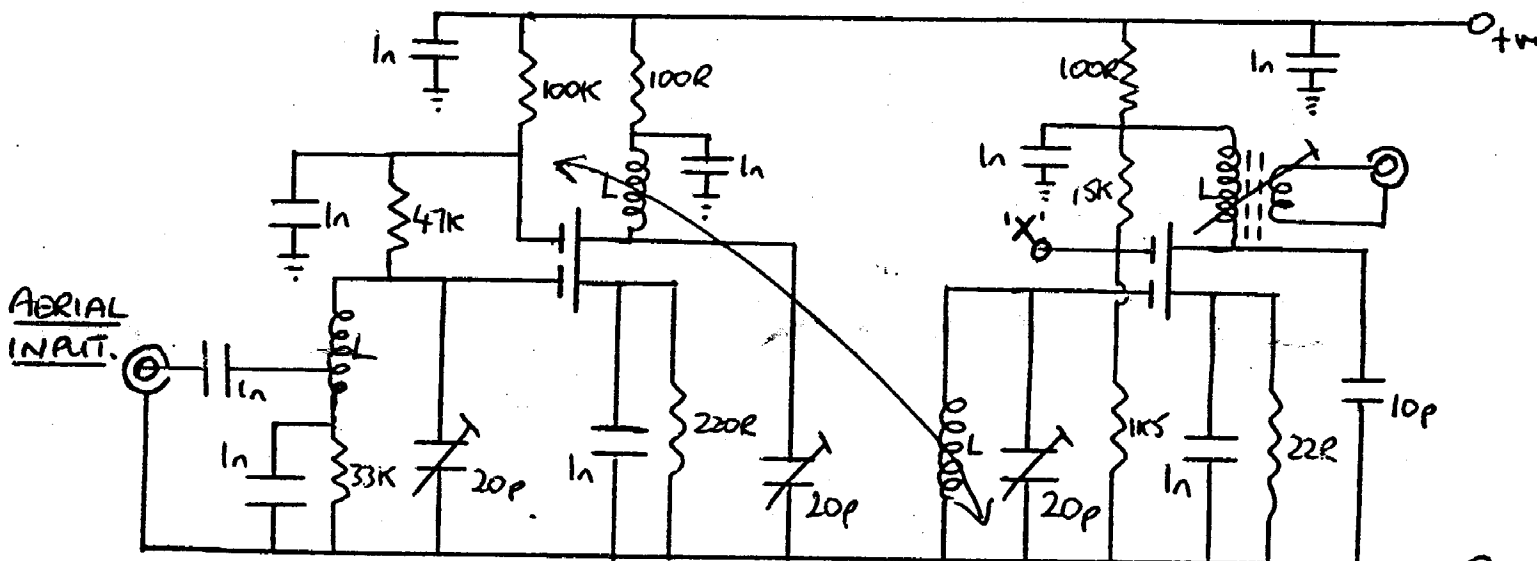
Our Ref.

Your Ref.

Date

MMC 50/28 (and 50/28LO) CIRCUIT DIAGRAM.

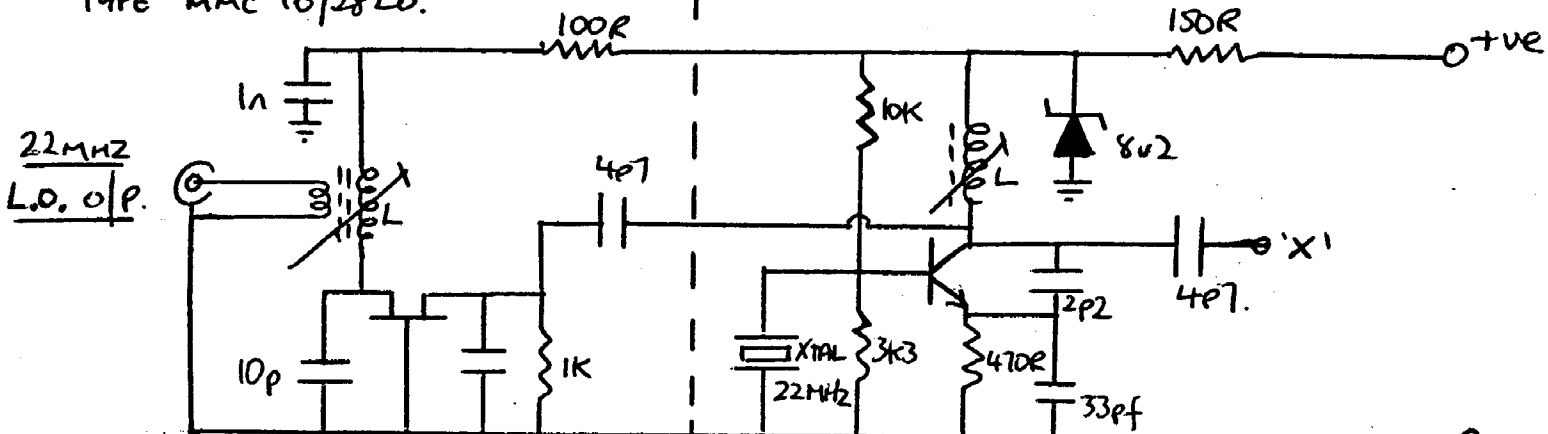
K10YB



40673 OR 40822. R.F. STAGE.

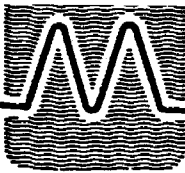
40673 OR 40822 MIXER.

THIS CIRCUITRY ONLY USED ON
LO. OUTPUT CONVERTER
TYPE MMC 70/28LO.



2N3819E.
LO Buffer Amp.

BF152.
Oscillator.



MICROWAVE MODULES LTD

POWER CONNECTOR INFORMATION

An improved method of power connection has now been incorporated on the enclosed product.

We have replaced the two PTFE terminal pins, mentioned in the data, with a 5 pin DIN plug and socket arrangement.

The connections are detailed below.

This improvement will make the product far easier to use and reduce the risk of any accidental heat damage.

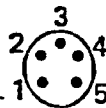
— POWER —

When looking at the socket as pictured below connections are as follows—

PIN 3—NEGATIVE (EARTH)

This line should be connected to the negative side of the supply, and earth.

PIN 5—POSITIVE (+ 12 V)



MIW FEBRUARY 1983

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