

APPENDIX 1

CIRCUITS AND DEVICES TO STABILIZE FREQUENCY

All 40 channels of transmitting, and receiving, frequencies are provided by PLL (Phase Locked Loop) circuitry.

The purpose of the PLL is to provide a multiple number of frequencies from VCO (Voltage Controlled Oscillator) with quartz crystal accuracy and stability from on crystal oscillator reference frequency.

The reference crystal oscillator frequency is 10.24 MHz.

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APPENDIX 2

CIRCUITS FOR SUPPRESSION SPURIOUS RADIATION

The tuning circuit between frequency synthesizer and final amp Q704 and 4-stage "PI" network C718, C719, L711, C721, L712, C725, L725, L713 and C723 in the Q704 output circuit serve to suppress spurious radiation. This network serves to impedance match Q704 to the antenna and to reduce spurious content to acceptable levels in the frequency synthesizer.

CIRCUITS FOR LIMITING MODULATION

A portion of the modulating voltage is rectified by D402 which turns on IC401 attenuating the mic input. The resulting feedback loop keeps the modulation below 100 percent for inputs approximately 40 dB greater than that required to produce 50 percent modulation.

CIRCUITS FOR LIMITING POWER

During factory alignment, tuning is adjusted so that the actual power is from 3.6 to 3.9 watts. There are no other controls for adjusting power.

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