

1584 Baby Monitor Transmitter Description

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The 1584 transmitter is a FM narrow band communication device operating in the 49MHz band. A dynamic automatic gain level control circuit (AGC) enhances microphone sensitivity. The AGC limits the transmitter deviation to a maximum of approximately 6.5KHz.

A power ON indicator light shows on/off status (switch 2). There are 2 user selectable channels (switch 1). The transmitter is powered with an AC to DC 6 volt, 100 mA adapter (included) which plugs into a jack on the transmitter. The transmitter can not be operated on batteries.

An electret mic is coupled to the input of the mic amp with feedback loop of AGC circuit. The audio signal is coupled to the modulator, which is a modified Clapp oscillator operating in a 3rd overtone mode. There is a quiescent dc bias on the varactor diode D1 and in conjunction with XT1 or XT2 (user selectable) which sets the nominal center frequency of the oscillator.

The 49MHz FM signal from the modulator is coupled to the RF predriver. Amplified RF energy is coupled to the secondary of T2 and is amplified by the driver stage. It is then sent to the antenna by the loading coil L11.

The antenna is vinyl covered formed wire.