



SCHOOL OF ENGINEERING

FINAL REPORT

SHORT-RANGE FM TRANSMITTER AND RECEIVER

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ABSTRACT

This project, Short-Range FM Transmitter and Receiver touches all areas pertaining to the conceptual design and implementation of a transmission and receiving signal in FM. Frequency modulation (FM) is a method of impressing data onto an alternating-current (AC) wave by varying the instantaneous frequency of the wave. This scheme can be used with analog or digital data. In analog FM, the frequency of the AC signal wave, also called the carrier, varies in a continuous manner. Thus, there are infinitely many possible carrier frequencies. In digital FM, the carrier frequency shifts abruptly, rather than varying continuously. In this implementation of (FM), a simple communication device was designed, a walkie-talkie. In this device it deal with the transmission of signal that voice from a transmitter tot the receiver using the radio transmission frequency within the range of standard (FM) range, 88MHz-108MHZ at a specific distance in 500 metres. But in actual device that had build out, the device operates in a frequency of 27.14MHz and the transmission of the signal only can transmit up to 100 metres.

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