

## INTI SARI

Telah dibuat sistem pengirim data digital bersama sinyal audio melalui pemancar FM stereo. Sistem pengiriman data ini berdasarkan prinsip FDM (*frequency deviasi multipleksing*).

Pengiriman data dilakukan dengan memodulasi amplitudo frekuensi sub pembawa 67 kHz dan digabungkan dengan keluaran multiplexer FM stereo sebagai masukan pemancar FM. Pekodean kembali data dimulai dengan pemisahan data digital termodulasi amplitudo dengan sinyal audio menggunakan rangkaian *band pass filter* (BPF). Keluaran BPF dilewatkan penguat penyangga, detektor dan penyulut Schmitt untuk mendapatkan kembali data digital.

Sistem telah dapat mengirim data digital sebesar 1kHz bit/detik dengan bentuk sama dengan data yang dikirim.



## ABSTRACT

A digital data transmitter system that utilizes audio signal of stereo FM transmitter has been made. The data transmission system is based on frequency deviation multiplexing (FDM) principle.

The data transmission was conducted by sub carrier frequency 67 kHz the amplitude modulated and combined with the stereo multiplexing output to be FM transmitter input. The data decoding was started by separating the amplitude modulated digital data and the audio signal using band pass filter (BPF) circuit. The BPF output therefore was passed through buffer amplifier, detector and Schmitt trigger to regain the transmitter data.

The system has been capable to transmit the digital data up to 1 kbit/second that has equal form with the transmitter one.

