

BUILDING OF A FUNCTION GENERATOR

THAMOTHARAN S/O RAMMOO

ENGINEERING PROJECT
SCHOOL OF ENGINEERING
UNIVERSITY COLLEGE SEDAYA INTERNATIONAL
MAY-DECEMBER 2004

ABSTRACT

This is a final report of a project entitled Building of a Function Generator. The report is prepared to provide a good operating explanation of function generator devices in general uses today, impart knowledge of power electronic semiconductor and materials using these devices and finally to come out with a design of a 20Mhz Function Generator.

The use of MAX038 Function Generator, LM324 Op-Amp, OP37 Op-Amp, CD4514B Multiplexer, CD4520 BCD Counter, CD4066B Bilateral Switch and few other materials have been much influence the success of this project. These semiconductor and materials have perfect characteristics and many other capabilities, which are very suitable in designing a function generator.

After discussing the device operation, characteristics and parameters, the operation of the circuits is explained, and then circuit design and analysis are treated. Practical design and analysis are included in the report, using the device parameters derived from manufacturer's datasheets. Waveforms, diagrams and most equations are derived so that the reader will know exactly what is going on at all times. Instead of rigorous analysis methods, practical approximations are employed whenever possible.