CONNECTING THE CHEQUE DEPOSIT BOX TO THE TCP/IP VIA TCP/IP STACK MODULE

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In the most Name of Allah S.W.T
Most Gracious Most Merciful

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ABSTRACT

This project report describes the design of Cheque Deposit Box (CDB). CDB is a low cost cheque deposited machine which is developed to meet a function exactly like existing machine that is available at the banks. The CDB is divided into three parts i.e. the input devices, microcontroller, and output devices. Input devices consist of Barcode Reader and switches, while output devices are serial printer, TCP/IP Stack Module, LEDs and latch. The work that carried out in this report is to build the TCP/IP Stack Module which is function as a network server to store or send the data to the internet from the CDB. The main components of this module are PIC18F2620 chip as a microcontroller, ENC28J60 chip as an Ethernet controller and SPI EEPROM as flash memory storage. This PIC18F2620 microcontroller will download with TCP/IP Protocol Stack v3.75 from Microchip after a several changing depend to it functions and this module will communicate with AT89S53 microcontroller in the CDB via SPI interface. Findings in this project showed that the CDB will have it own IP address and can store and send the data through the internet successfully. This project meet the function exactly like existing machine and contributes to development banking system in Malaysia.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Cheque Deposit Machine (CDM) is a machine used for deposit cheque without queuing at the counter and saving the users time. The procedure to use the CDM is simple and can be done just in a minute. Furthermore, this is a safe and easy way to bank in cheques and even after working hours the cheque can be bank in via CDM [1].

However, the existing CDM are very expensive make it only available at some places. So to encounter this problem, low cost aid Cheque Deposit Box (CDB) easy to operate is developed. Compared to the machine that available today, this machine is simpler, energy saving and also has a simple structure and circuitry that reduced the operational cost. Because of these factors, every financial branch can have it and can be place in others public areas such as office and residential area. As a result, the bank's customers able to deposit cheque at the nearest branches or at their office.

But the problem is the current CDB is can not be access from outside, so to make the CDB more convenient and easy to access from the outside, this CDB has been attaching with TCP/IP Stack Module which is act as a server to store and send the data through the internet. This TCP/IP Stack Module also can be attaching with another devices through the SPI interface. Figure 1.1 shows the flow of the whole system of CDB operation.