

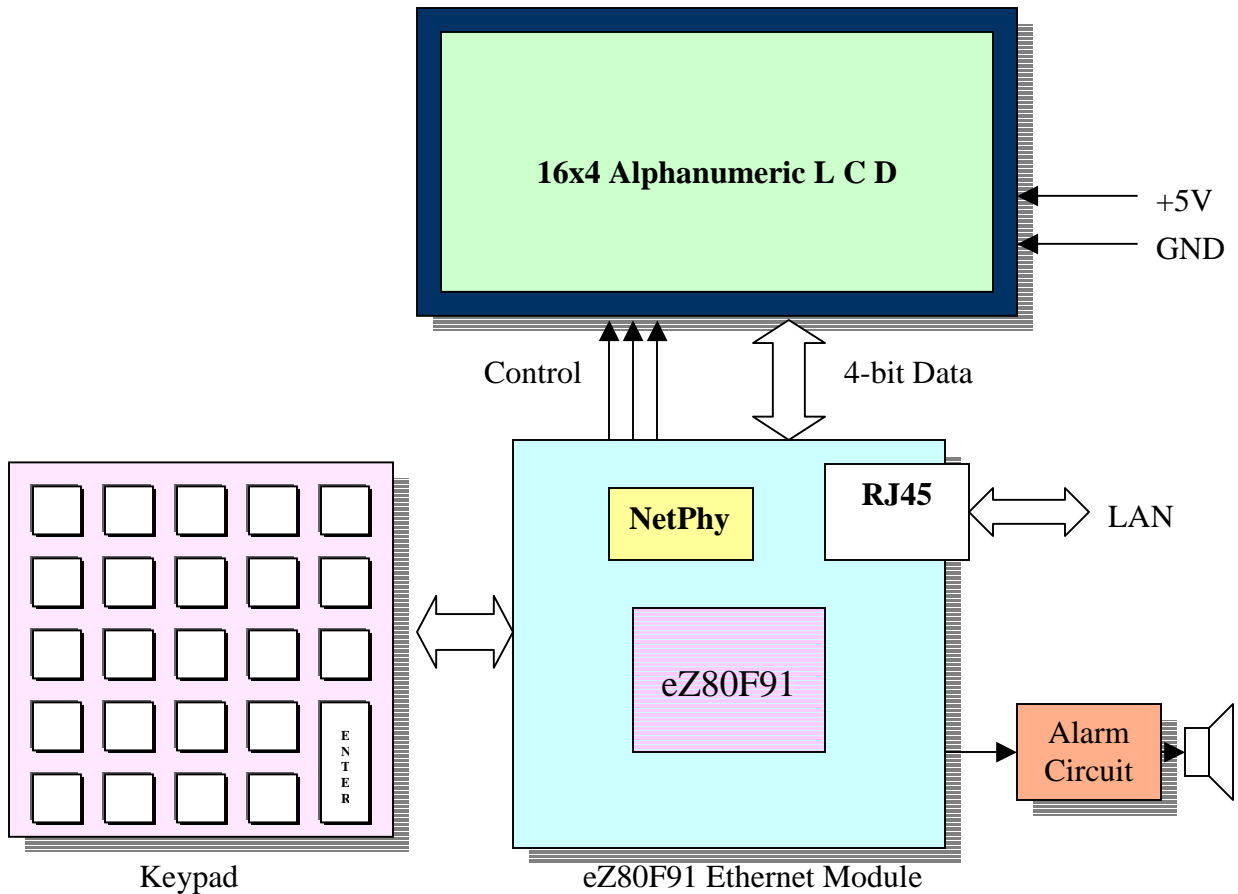
ZiLOG 2004 FLASH NETS CASH Design Contest

ENTRY # eZ2972

Remote Messaging Unit (RMU)

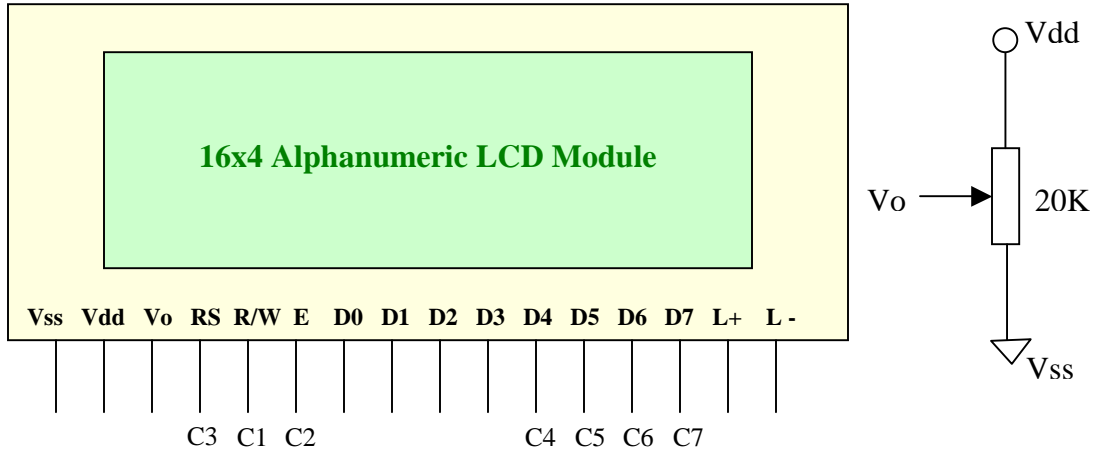
Remote Messaging Unit (RMU) is designed to exchange short messages over Local Area Network (LAN) using eZ80F91 platform. Short messages are very important in the hours of urgent need or to send important information with alert. There are other possible options for doing this but nothing is available FREE to the user. Mobile phones are quite commonly used these days for sending short messages but that involve recurring cost per SMS. Computers can be used in LAN environment for sending short messages using messengers or net send utilities but it is not worthy to always keep it ON to receive the messages. This involves power cost. Many times it happens when you want to send a message to the user, its PC is OFF. Then it's very difficult to communicate in such situations. RMU is developed keeping all such needs in view. RMU is based on eZ80F91 Module and contains only LCD and keypad as external parts; it consumes very less power even if it runs continuously for days. It has an alarming circuit to inform user about the receipt of message, seeking immediate attention. RMUs can be fixed in the offices or homes where LAN is available to deliver instant messages with alert, without involving any additional cost.

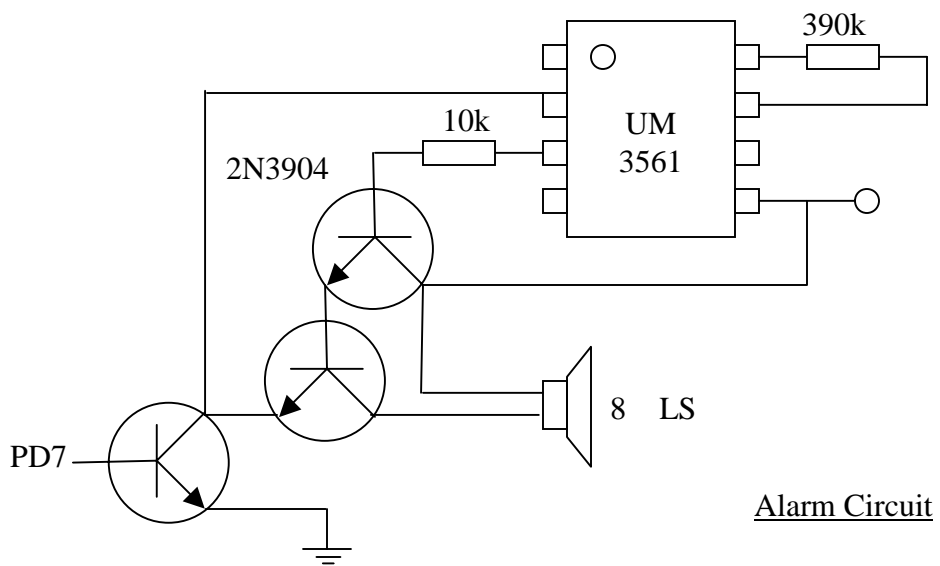
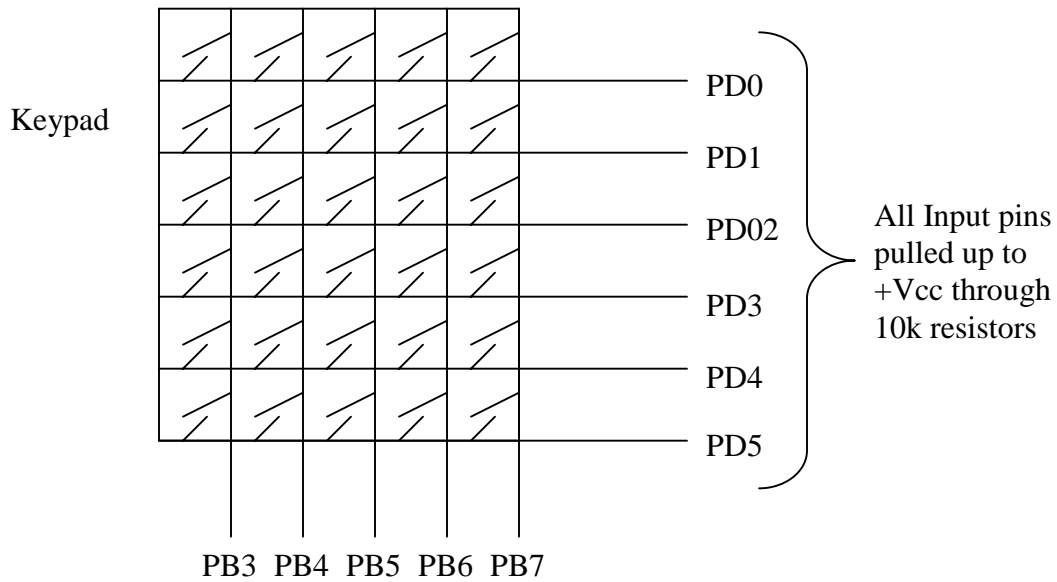




RMU Block Diagram

The Remote Messaging Unit (RMU) is developed on Zilog's networked eZ80 Acclaim microcontroller eZ80F91. The mini eZ80F91 network module on development board is used as the main hardware. RMU Application interface board is developed on a general purpose PCB with connections to LCD, keypad and alarm circuit. GPIO pins of eZ80F91 are connected to various peripherals. The application code for eZ80F91 controller is developed using C language in ZDS II IDE v 4.8.0 for eZ80 Acclaim. Zilog's TCP/IP stack ZTP 1.3.1 and OS is used for web server development. The website code is written in html and cgi functions are coded in C.





Circuit diagram of RMU application board

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