

application note

No. AP88001

E² Key™ Function on the IRV -686 and ILH-386 Single Board Computers.

The **IRV** and **IRVH** include an **E²KEY™** 1K-bit electrically erasable memory. The memory is useful for storing user data such as password, terminal address, configuration, parameters etc. The memory is configured as 64 words, which can be accessed one at a time, and uses the parallel port for the hardware interface.

Development System: **IRV-686**
IRV-686H

Production System: **IRV-686**
IRV-686H

Application:

The utility software which is supplied with the CPU board has a directory which is called **E²KEY**. In this directory there are four main files; **README.DOC**, **E2KEY.OBJ**, **EKEYDEMO.C** and **EKEYDEMO.EXE**.

There are also five library files; **SE2KEY.LIB**, **ME2KEY.LIB**, **CE2KEY.LIB**, **LE2KEY.LIB** and **HE2KEY.LIB**.

The **E2KEY.OBJ** provides two library functions for the user to integrate their application. The libraries, (**read_e2key** and **write_e2key**) are written and compiled in C.

Below are examples of the implementation statements.

unsigned int read_e2key(unsigned int address)

/*This function will return the **E²KEY™**'s data at address. The address range is from 0 to 63. Return data is one word, 16 bits*/

void write_e2key(unsigned int address,unsigned data)

/*This function will write the given data to **E²KEY™** at address. The address range is from 0 to 63. The data value is from 0 To 0xffff.*/

As a quick start function, refer to the file **EKEYDEMO.C**.

Note:

The **E²KEY™** requires that the parallel port be enabled on the CPU board.