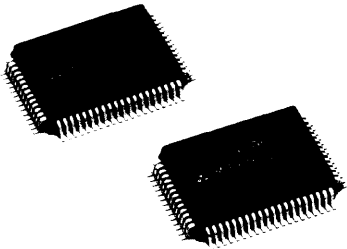# 16 STANDARD LOGIC ICs HOUSED IN A SINGLE 68-PIN QFP PACKAGE CONTRIBUTES TO CONSIDERABLE PCB SPACE SAVING

M66802FP

DESCRIPTION

In recent years, the demand for miniaturization for personal computers has been high and increasing number of lap top computers are produced. Only recently, A4-file-size or book-size computers have been produced, and some of them are likely to have built-in hard disks, thus, the demand for a high level of integration of peripheral ICs will climb higher yet.

To meet such demand for highly integrated ICs, Mitsubishi Electric has developed the M66802FP, which is a bus interface IC for ISA*-applicable personal computers and IDE**-applicable HDD, with our bipolar standard complex logic technology which realizes high integration and high output drive capacity. The M66802FP accommodates what were

previously 16 standard logic ICs in a single 68-pin QFP package, thus reducing the required PCB space considerably.

* ISA (Industry Standard Architecture): Architecture for personal computers used as an international standard
** IDE (Integrated Drive Electronics): HDD interface suitable for ISA-applicable personal computers

FEATURES

- High Drive Capacity
  $I_{OL} = 16mA$ (max.)
- Operating Temperature
  $-20 \sim 65°C$
  $-20 \sim 70°C$, when mounted on PCB
- Supply Voltage Range
  $V_{CC} = 5V \pm 10\%$
- DISABLE/-ENABLE pin allows separation of HDD from the bus on the personal computer side.
- -PRIMARY/SECONDARY pin allows selection of decoding of addresses A7 ~ A4 from F_{16} or 7_{16}.

- Wired OR for $-$ IOCS 16-pin open collector output.
- 16 standard logic ICs are housed in a single 68-pin plastic molded QFP package.
- MAST (Mitsubishi Advanced Schottky TTL) process: a bipolar oxide film separation process is used for the wafer process.

APPLICATIONS

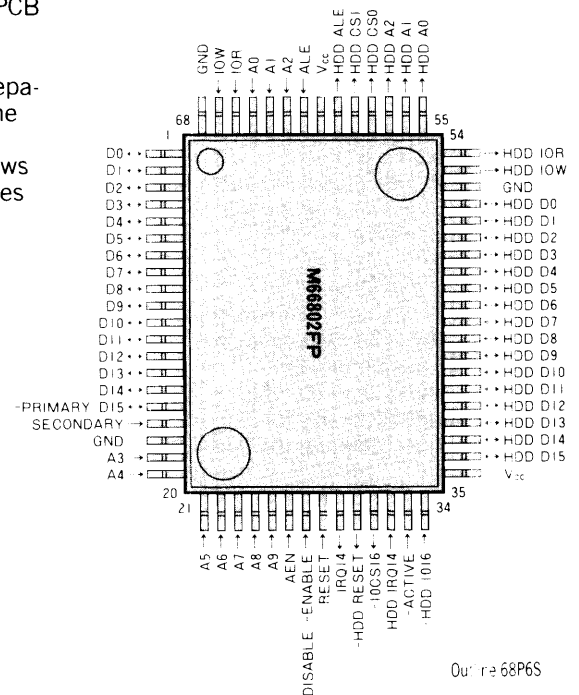Personal computers, HDD interface

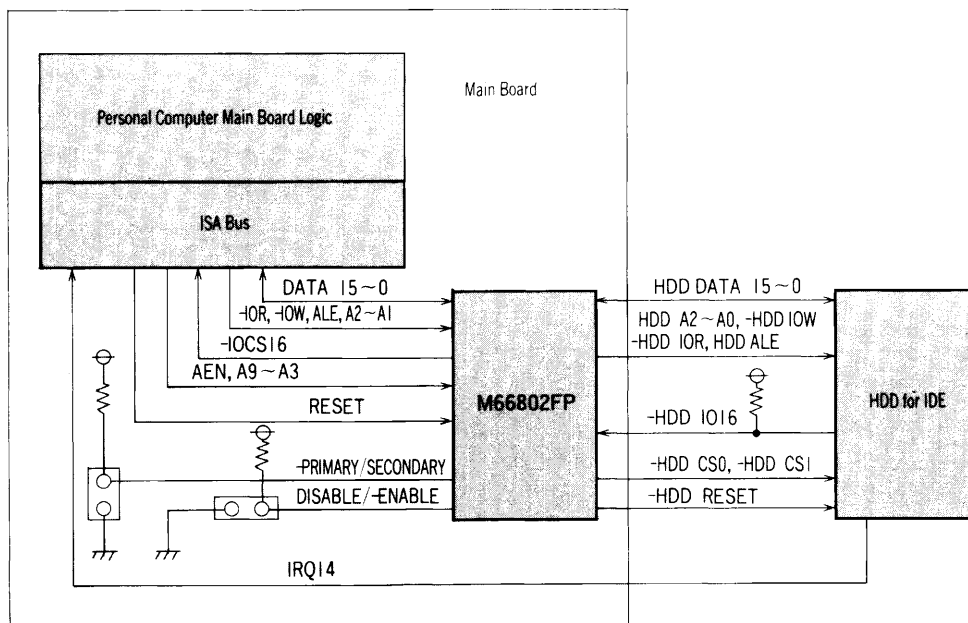
Fig. 1　Pin Configuration (Top View)

Fig. 2　Example of System Configuration of HDD Bus Interface I (M66802)