ID MOS Digital I.P. SHORTFORM

IM054:   PIC 16C54 compatible Microcore

PRODUCT DESCRIPTION   .

The ID MOS IM054 microcontroller is software and instruction execution timing compatible with the industry standard Microchip PIC 16C54.
All instructions are single cycle except for program branches which take two cycles.The architecture of IM054 is based on a register file concept with separate bus and memories for data and instructions (Harvard architecture).

The data bus and memory (RAM) are 8 bits wide while the program bus and program memory (ROM) have a width of 12 bits. This concept allows a simple powerful instruction set designed to emphasize bit, byte and register operations under high speed with overlapping instruction fetch and execution cycles. That means that, while one instruction is executed, the following instruction is already being read from the program memory.

FEATURES   .

- 8 bit data bus width
- Supports 512x12 words of program memory and 128x8 data memory (same memory as PIC16C57)
- Sleep mode
- Watch Dog Timer and Real Time Clock/Counter
- De-multiplexed Address/Data buses of the program and data memory
- Ports can be used both as bidirectional and separated inputs and outputs
- Optional on-chip PI-bus (OMI standard 324) for easy integration of large inventory of kit parts
- 100% instruction semantics and timing compatibility with the Microchip PIC16C54
- MOVF and MOVWF instructions service of extra peripherals

BLOCK DESCRIPTION   .