

Digital I.P. SHORTFORM

IM051: 80C51 compatible Microcore

PRODUCT DESCRIPTION

The ID MOS IM051 microcontroller is software and instruction execution timing compatible with the industry standard 80C51. It has separate program and data memory. The program memory (up to 64 Kbytes) can be internal only, while the data memory is separated as follows:

- 256 bytes
- internal RAM
- up to 64 Kbytes external data RAM/ROM or up to 32 Kbytes PI bus addressing space and up to 32 Kbytes external data RAM/ROM.

The external data memory and PI bus are addressed using special purpose PI port. Two 16-bit timer/counters and full-duplex serial port (UART) are provided. The IM051 has 32 I/O port lines.

FEATURES

- 8 bits data bus width
- Up to 64 Kbytes ROM
- Up to 256 bytes internal RAM
- Up to 64 Kbytes external RAM
- Four 8 bits I/O ports
- Serial I/O port for either multiprocessor communication or full duplex UART
- Two 16 bits counter/timers
- PI bus (OMI 324 standard) implementation
- Up to 32 Kbytes addressing space in PI bus and up to 32 Kbytes of external data memory
- Optional peripherals implementation (via Xdata bus or PI bus)
- 100% instruction semantics and timing compatibility with Intel 80C51
- MOVX instruction mechanism service PI bus

BLOCK DESCRIPTION

